OPTN Ad Hoc Multi-Organ Transplantation Committee
Meeting Summary
March 26, 2025
Conference Call

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Introduction

The OPTN Ad Hoc Multi-Organ Transplantation Committee (the Committee) met via WebEx teleconference on 03/26/2025 to discuss the following agenda items:

1. Welcome and updates
2. Public comment analysis
3. Data Request: Multi-organ transplant recipients not covered by proposed allocation tables
4. Eligibility for multi-organ offers

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

1. Welcome and updates

The Co-Chair reminded members to respond to the email about extending Committee membership terms. The Co-Chair reviewed the timeline for the Summer 2025 policy proposal, highlighting that final policy language will need to be voted on in May.

2. Public Comment Analysis

The Committee received a presentation on public comments received on the request for feedback.

Summary of presentation:

There was strong engagement, with 47 total comments—36 from stakeholders and 11 from regional meeting discussions—making it the second most discussed topic this cycle. Overall, the community expressed strong support for the proposal's goals of increasing fairness, consistency, and standardization in multi-organ allocation.

Commenters were generally supportive of the donor and candidate allocation tables with some suggestions on the order of priority of candidate groups. A small number of participants commented on which organs should follow other organs, and the comments were supportive of heart-liver and lung-liver offers from the liver match run, which is not addressed in current policy.

Some commenters expressed concern that proposed Lung Composite Allocation Score (CAS) thresholds may disadvantage lung candidates. Comments suggested the use of specific CAS components (e.g., urgency, transplant access), percentile-based thresholds, and ensuring equity across blood types.

Commenters highlighted potential operational challenges such as the complexity of the proposed system and the potential for human error. It was recommended that robust training and technology-based guidance be available before implementation. Participants also identified potential challenges that should be considered by the Committee, including donor family time constraints, hemodynamic instability, late turndowns, and less flexibility for Organ Procurement Organizations (OPOs).

Regarding the system solution, commenters noted potential for increased time spent on allocation and the potential for errors and called for a solution that guides users and minimizes risks of error. Specifically, they requested clear and easy to follow allocation plans, color coding and other navigational aids, notifications when an OPO user needs to switch between match runs, and warnings when OPO users attempt to make an offer from an incorrect match run.

Although the request for feedback noted that a single match run is not currently feasible, some commenters called for an integrated match run, now or in the future.

Pediatric candidate access was the most commented-on issue. There was strong support for protecting access for pediatric patients, including kidney-alone, liver-kidney, heart-kidney, and multivisceral candidates. Some commenters called for pediatric kidney-alone candidates to be prioritized over kidney-pancreas candidates.

Several comments stressed the importance of avoiding non-use of pancreata. Some expressed concern for access for highly sensitized kidney-pancreas and pediatric kidney-pancreas patients. Commenters noted that OPOs may follow policy and place kidneys with kidney alone/kidney-MOT candidates and face penalties for not placing pancreata. A commenter suggested making a kidney available for kidney-pancreas transplantation where the pancreas cannot be allocated to another candidate.

Generally, the community tended to support the placement of pediatric and kidney-pancreas classifications in the proposed allocation tables. However, there was notable divergence between the OPTN Pancreas Committee and the OPTN Pediatric Committee of the placement of classifications within the table for Donation after Brain Death (DBD) donors aged 11-17 years with Kidney Donor Profile Index (KDPI) of 0-34%. The Pancreas Committee recommended that Kidney Classification 6 be placed below Pancreas/Kidney-Pancreas Classification 4, whereas the Pediatric Committee recommended that Kidney Classification 6 be placed above Pancreas/Kidney-Pancreas Classification 1.

A few commenters requested additional data and/or modelling. For example, modeling how the proposed changes may increase or decrease allocation out of sequence, modeling potential effects on different candidate groups, and data analysis on potential impacts on pediatric liver-kidney allocation.

Several commenters emphasized the need for training to support implementation and compliance. Commenters also called for strong post-implementation monitoring, including on impacts on pediatric candidates, organ non-use, and potential adverse effects or unintended consequences.

Other feedback included:

- Allocation out of sequence: commenters sought clarity on how this policy interacts with other OPTN efforts in this area
- Cross-matching: commenters suggested increased use of virtual cross-matching to improve allocation for highly sensitized candidates
- Safety net policies: commenters sought clarity on how the policy proposal intersects with existing OPTN safety net kidney policies

Summary of discussion:

Members were appreciative of the amount of public comment feedback and acknowledged issues to be considered during the extended meeting in April.

Next steps:

The Committee will consider changes based on public comments at its April 4 extended virtual meeting.

3. Data Request: Multi-organ recipient population

OPTN Contractor Staff presented a data request on the multi-organ recipient population.

Summary of presentation:

The purpose of the request was to review additional data on recent multi-organ recipients to determine whether specific populations may not be included in the proposed allocation tables. This may assist the Committee to determine whether additional classifications should be added.

The data included MOTs performed between July 1, 2023, and July 1, 2024, focusing on combinations such as heart-kidney, heart-liver, heart-lung, lung-kidney, lung-liver, liver-kidney, multivisceral, and kidney-pancreas. For recipients who fell outside the proposed coverage, the analysis also examined their primary organ classification and additional characteristics, such as age, urgency, sensitization, ABDR mismatch, and distance between donor and transplant center.

To determine coverage, donors were considered "covered" if they fit one of seven specified donor types, including the draft DCD age 18+ with KDPI 35–85% table. Recipients were considered covered if their donor was on this list and their primary organ classification appeared in the proposed MOT tables.

The primary organ was identified based on the match run where final acceptance occurred; if unavailable, the most recent match run was used. Classification rules were applied when data was missing—for example, heart classifications were used for heart-lung and heart-kidney transplants. Lung MOT candidates were included, with cohort dates adjusted to ensure lung CAS scores were available. CAS thresholds for pediatric donors mirrored adult values but may change pending further review. CPRA was included only for kidney MOT combinations, with special handling for values affected by the January 2023 CPRA policy change.

The results show that the vast majority of MOT recipients (97.55%) received transplants from donors that would be included in the proposed allocation algorithms. Only 2.45% of recipients received transplants from donors not covered, most often due to the donor having a KDPI > 85% or being a Donation after Circulatory Death (DCD) donor under age 18 with KDPI 0–84%. Among transplant types, liver-kidney had the highest proportion of uncovered cases (4.58%), while lung-kidney had the fewest overall transplants.

The proportion of recipients not covered by the algorithm varied between 3% and 38%, depending on the MOT combination. Multivisceral recipients had the highest proportion of coverage, whereas lung-kidney recipients had the lowest proportion of coverage.

Heart:

The analysis looked at multi-organ transplant heart recipients who accepted offers on the heart match run but whose transplants were not covered by the proposed allocation algorithm. Tables highlighted the top five primary heart classifications for each donor type with non-zero counts. Notably, heart classifications 11 and 13 consistently appeared in the top five across all eligible donor types. Donors from DBD under age 11 groups (both KDPI 0–34% and 35–85%) had no associated MOT heart recipients, so they were excluded from the tables.

A full distribution of heart classifications for these uncovered recipients was provided, along with a box plot summarizing the data. The median heart classification varied by donor type, ranging from 13 (for DBD 18–69 KDPI 0–34%) to 17 (for DBD aged 11–17 KDPI). The interquartile range also varied, being narrowest for DBD 11–17 KDPI 0–34% donors and widest for DCD 18+ KDPI 35–85% donors.

Lung:

The review of MOT lung recipients who accepted on the lung match run but were not covered by the proposed algorithm included only three donor types—others had no applicable recipients. The top five primary lung CAS scores were shown for each included donor type, based on non-zero counts.

The lowest lung CAS scores for uncovered recipients ranged from 24 to 30, depending on donor type. The minimum CAS thresholds vary by blood type: 34 for O donors and 30 for non-O donors, meaning some recipients with CAS scores between 30 and 34 may have been eligible if they'd received lungs from non-O donors. Sample sizes were small, so interpretations should be cautious.

A breakdown of recipient counts by CAS score and donor type was presented, followed by a box plot summarizing CAS distributions. The median lung CAS for uncovered recipients was 30 (DBD 18–69 KDPI 0–34%) and 26 (DBD 11–17 KDPI 0–34%).

Liver:

For MOT liver recipients who accepted on the liver match but were not covered by the proposed algorithm, the analysis showed that among DBD donors, the top five primary liver classifications ranged between 29 and 37, while among DCD donors, they ranged between 15 and 16.

A larger number of donors were included in this section. A box plot provided a clearer summary of liver classification distributions. In general, DBD recipients had higher median classifications than DCD recipients. Specifically:

- For DBD donors aged 18–69 KDPI 0–34%, the median liver classification was 34, and this group had the highest number of uncovered recipients among DBD types.
- For DCD donors aged 18+ KDPI 35–85%, the median classification was 16, and this was the most common DCD donor type for uncovered recipients.

Additionally, there was one multivisceral recipient not covered by the tables, who was included under the liver match for analysis.

Kidney and kidney-pancreas:

For MOT kidney recipients who accepted on the kidney match but were not covered by the proposed algorithm, the sample size was very small—only six recipients total. These recipients fell into kidney classifications 29, 39, or 40. Five of them received organs from adult DBD donors with KDPI 0–34%, and one received from a DBD donor aged 11–17 with KDPI 0–34%.

In the case of kidney-pancreas (KP) recipients, among the donor types with non-zero counts, KP classification six consistently had the highest proportion of uncovered recipients. Regardless of donor type, most uncovered KP recipients who accepted on the kidney-pancreas match were classified under KP classification six.

Heart, lung, liver, and kidney medical urgency for MOT recipients not covered:

Recipients were included in urgency plots for both organs regardless of which organ was considered primary. For example, all heart-lung recipients were included in both heart and lung urgency data.

- For heart-lung, heart-kidney, and heart-liver recipients, the most common heart urgency statuses were:
    - Status 4 (heart-lung)
    - Status 5 (heart-kidney)
    - Status 3 (heart-liver)

- For liver MOT recipients (heart-liver, liver-kidney, lung-liver), the majority had MELD/PELD scores of 28 or less at transplant
- The single multivisceral recipient not covered had a MELD/PELD of 29–32

For kidney recipients, medical urgency was not applicable (all were in a non-urgent status), so CPRA and ABDR mismatch were shown instead.

Intestine urgency data was not shown, as there was only one uncovered multivisceral recipient, and they were not medically urgent.

Other findings:

The majority of heart-lung recipients not covered had lung CAS scores at transplant between 30 and 35, whereas the majority of lung-kidney and lung-liver recipients not covered had lung CAS scores between 25 and 30. However, some of the sample sizes in these groups are very small.

For kidney multi-organ transplant recipients not covered by the MOT algorithm:

- The majority had a CPRA of 0 at transplant, indicating they were not highly sensitized.
- Most had a non-zero ABDR mismatch, meaning some level of HLA mismatch was present with their donor.

For multi-organ transplant recipients not covered by the MOT algorithm:

- Age: Most were in older age groups, though this varied by MOT type. The single multivisceral recipient not covered was pediatric.
- Distance:
    - Heart-lung and liver-kidney recipients not covered were typically within 150 nautical miles of the donor hospital.
    - Recipients of other MOT types were generally located 250–500 nautical miles away or more than 500 nautical miles from the donor.

Summary of discussion:

Members discussed whether any of the MOT allocation tables should be expanded. A member highlighted that while multivisceral transplants seem to be almost entirely covered, there's a gap for lung-kidney and heart-kidney combinations, with about 25–40% of these transplants occurring outside the proposed allocation tables. They suggested that the Committee consider adding more heart and lung classifications to promote access for these candidates.

OPTN Contractor staff (staff) who support the Lung-MOT Workgroup noted that the CAS thresholds are still under review by that group. Members also noted that very small sample size for lung-kidney candidates.

A member noted that the primary allocation table includes heart classifications through Classification 6 (Adult Status 3 or Pediatric Status 1B within 250NM and liver classifications through Classification 27 (MELD/PELD of at least 29 within 500NM). They questioned whether that leaves out too many candidates who might be eligible for multi-organ transplants. They raised a concern that 25–30% of multi-organ transplant recipients are currently receiving transplants outside of the proposed algorithms, highlighting a potential gap in coverage—especially for pediatric status 1B patients, who are only considered within a 250-nautical-mile radius. The Co-Chair reminded the group that the tables were intentionally limited and focused on the highest priority candidates in each organ group. The Co-Chair suggested adding this issue to the agenda for their extended meeting.

Next steps:

The Committee will consider adding additional classifications to the proposed tables during its extended virtual meeting on April 4.

4. Eligibility for multi-organ offers

The Committee continued its discussion on eligibility for multi-organ offers.

Summary of presentation:

Staff reaffirmed the Committee's previous consensus that kidney eligibility criteria from current OPTN policy should be incorporated into the policy proposal. Specifically, for heart, lung, and liver-kidney transplants, candidates must meet established kidney criteria (e.g., from policy 10.5E) for the kidney to follow the primary organ.

Staff displayed a table showing which organs would follow others on each match run. For example, during a heart match, a heart would pull all other organs and adult heart-kidney offers would be subject to the kidney criteria in current OPTN policy. Abdominal organs would pull other abdominal organs, but not thoracic organs.

Summary of discussion:

A member raised a question about the difference between the liver and liver-intestine match runs. They suggested that if the liver can already pull the intestine, perhaps there's no need for a separate liver-intestine match run.

Staff clarified that currently, there are two separate match runs: one for liver-only donors and another for liver-intestine donors. The distinction is necessary due to different allocation sequences for donors with liver and intestine available compared to those with liver only available.

The member raised a concern that OPOs could potentially bypass allocating intestines by choosing to run only a liver match, even if the intestine is transplantable. This could result in eligible liver-intestine candidates being excluded from the match. The Co-Chair confirmed that the match system prompts OPOs with a pop-up if the intestine is available, instructing them to cancel and rerun the match including the intestine.

The Committee agreed on the importance of ensuring that the system clearly communicates to OPOs which matches must be run and which organs can follow primary organs, including for liver-intestine combinations.

Next steps:

The Committee will continue discussing eligibility for multi-organ offers at its extended virtual meeting on April 4.

5. Open forum

Summary of discussion:

There were no open forum requests.

Upcoming Meetings

- April 4, 2025
- April 9, 2025

Attendance

- **Committee Members**
  - Lisa Stocks, Co-Chair
  - Vincent Casingal
  - Rocky Daly
  - Rachel Engen
  - Jonathan Fridell
  - Shelley Hall
  - Jim Kim
  - Precious McCowan
  - Oyedolamu Olaitan
  - Deanna Santana
  - Nicole Turgeon
- **SRTR Staff**
  - Avery Cook
  - Jon Miller
- **UNOS Staff**
  - Sarah Roache
  - Erin Schnellinger
  - Kaitlin Swanner
  - Stryker-Ann Vosteen
  - Ross Walton