OPTN Heart Transplantation Committee
Meeting Summary
December 17, 2024
Conference Call

J.D. Menteer, MD, Chair
Hannah Copeland, MD, Vice Chair

Introduction

The OPTN Heart Transplantation Committee met via WebEx teleconference on 12/17/2024 to discuss the following agenda items:

1. Welcome, introductions, and agenda review
2. SRTR presentation of Match Run Analysis and how it may assist Committee's CD deliberations
3. How match run analysis might be useful when considering Proximity Efficiency rating scale refinements
4. Open Forum
5. Closing remarks

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

1. Welcome, introductions, and agenda review

The Chair welcomed the members and told them the meeting's objective was to provide the Committee with information about SRTR's match run analysis as a tool for helping with the Committee's continuous distribution work. The Committee can use match run analysis to start acquiring information about their proposed attribute weights and rating scales while waiting for SRTR and MIT assistance developing the OASIM model and the heart optimizer, respectively. The Chair introduced the SRTR staff to provide an overview of how match run analysis works, what information the analysis provides and does not provide, as well as what the Committee needs to do in order to submit a data request for SRTR to perform the analysis.

2. SRTR presentation of Match Run Analysis and how it may assist Committee's CD deliberations

SRTR contractor staff provided an overview of match run analysis. Staff described match run analysis as a tool to help OPTN committees develop allocation policies. It is especially useful when developing continuous distribution allocation frameworks because it allows committees to compare very different policy ideas and it lends itself to understanding the differences between those policy alternatives. SRTR's organ allocation simulation (OASim) and MIT's optimization are other tools committees use when considering policy options. Match run analysis is a similar but with the additional benefit that the analyses can be performed and the results provided to a committee much quicker than the other two tools. Given that the Heart Committee is waiting to start its simulation analysis after the Liver Committee has completed their analysis, match run analysis could be a really good tool to keep the Heart Committee moving toward development of its final continuous distribution policy. Contractor staff compared the three tools and described the advantages and disadvantages of each.

No decisions were made as part of this agenda item.

SRTR contractor staff introduced match run analysis as a useful tool to help the Committee understand the differences and trade-offs between different proposed allocation policies, represented as different combinations of attribute weights and rating scales. For example, match run analysis can help the Committee evaluate the impact of different policies addressing medical urgency and distance (as addressed by proximity efficiency). Match run analysis provides insights into which groups and sub-groups of candidates are prioritized under specific policies (identified as attribute weights and rating scales) and the tradeoffs that can occur by changing the policies. SRTR contractor staff said that match run analysis provides concrete data that is particularly helpful for developing aa CD allocation framework. By comparison, simulation analysis takes a time to build the model and perform the analysis, but the results are easy to interpret.

A match run analysis uses a set of historical match runs that reflect how donor organs were prioritized among the waitlisted candidates at the time the donor organ was available. That prioritization is based on the allocation policies that were in place at the time of the match run and the characteristics of the waitlisted candidates. The match run analysis reorders those match run based on a committee's proposed policy in order to create a whole set of new match runs under the proposed policy alternatives.

The match run essentially identifies who the policy is prioritizing by reordering match runs under the proposed policy rules. The analysis can also identify where some of the tradeoffs might be happening. For example, whether enough priority is being given compared to the current policy. The Committee will review results from the analyses in aggregate and identify, on average, what kinds of characteristics are prioritized at sequence number one, at sequence number two, and continuing down the match run list. Match run analysis can be informative in determining how much weight to give each attribute, or what rating scale should be applied?

SRTR contractor staff presented information about how a match run analysis for lung continuous distribution allocation policy was performed and what results were produced. For instance, when considering the impact of different approaches to waitlist survival, the analysis results in showing that candidates with estimated lower waitlist survival were appearing at the top of the actual and modeled match runs, meaning that candidates with greater medical urgency were/would benefit from the policies being considered. SRTR contractor staff provided another example showing how the match run analysis of lung CD allocation policy demonstrated that ABO blood type compatibility can be maintained while also allowing ABO identical candidates greater access to donor offers.

SRTR contractor staff explained the next steps the Committee needs to take in order for SRTR to perform a match run analysis of heart allocation policy options. Specifically, the Committee needs to provide attribute weights and rating scales, as well as a set of outcomes they are interested in occurring as a result of the proposed CD policy options. Contractor staff said that the weights and rating scales can be initial ideas; they do not have to be what the Committee thinks the final values should be. Additionally, the set of outcomes should be considerations such as: which populations or sub-populations does the Committee want to see appearing at the top of the match runs?, which populations does the Committee want to see near the top of the match run when considering nautical mile distances between the donor hospital and the candidate's hospital?, approximately where on a match run does the Committee expect to see candidates appear on the match run who are supported by

a dischargeable left ventricular assist device (LVAD)? Different options for the allocation score will be tested to determine if they align with the Committee's preferred outcomes.

Next steps:

Next steps were discussed as part of the next agenda item.

3. **How match run analysis might be useful when considering Proximity Efficiency rating scale refinements**

The Committee considered the attributes and rating scales they have developed to date in light of the information SRTR needs to perform the match run analysis.

Summary of discussion:

> No decisions were made as part of this agenda item.

The Chair reminded the members that the blood type rating scale was developed to provide all of the priority to blood type O candidates because they receive substantially fewer offers than other blood types. Priority within the sensitization attribute will be based on the number of antigens entered by a transplant program, and therefore the number of potential donors the program is choosing to exclude from matching with their candidate, with 80% sensitization and greater receiving 100% of the prioritization. The proximity efficiency rating scale prioritizes candidates based on the nautical mile distance they are from the donor hospital at the time of the match run. Prioritization decreases from 500 nautical miles to 1,500 nautical miles, after which no priority is provided.

The Committee acknowledged that the impact of sensitization on prioritization is a major challenge. One reason for the challenge is that there may be under-reporting of unacceptable antigens. The Chair asked the members to consider whether the non-linear scale proposed for awarding prioritization that starts awarding points at 50% sensitization before peaking at 80%, as described above) should be replaced with a linear scale between 50% and 80%.

As part of the 01/21/2025 Committee meeting, members will work on developing policy scenarios for inclusion as part of the first match runs. The information the Committee provides will be part of a formal data request to proceed with the match run analysis. Moving forward, the Committee members will be asked to review the match run analysis results when they are available in light of the Committee's priorities, and what, if any, trade-offs should be considered among the attribute weights and rating scales in order to achieve the Committee's priorities. The Committee will be able to request changes in the weights and rating scales as part of on-going match run analyses. Members may want to think about different ways to scale medical urgency prioritization for patients with multiple high-risk factors, and how combinations of factors make it difficult for such candidates to get a transplant. A member suggested exploring the impact of weighting distance/proximity efficiency differently for pediatric and adult candidates.

Next steps:

The Chair stated that an initial set of attribute weights and rating scales will be created to share with the Committee as part of the 01/21/2025 meeting. The initial weights and rating scales will be based heavily on the rating scales the Committee has already identified, as well as the attribute weights identified through the Values Prioritization Exercise that was open to the public from 01/23/2024 through 03/19/2024.

4. Open forum

There were no requests to address the Committee during this part of the meeting.

5. Closing Remarks

The Chair thanked the members for their questions and comments. The Chair reminded them of the importance of the 01/21/2025 meeting and encouraged them to attend and actively participate.

Upcoming Meetings

- ~~July 2, 2024 from 4:00 to 5:30 pm~~
- ~~July 16, 2024 from 5:00 to 6:00 pm~~
- ~~August 7, 2024 from 4:00 to 5:00 pm~~
- ~~August 20, 2024 from 5:00 to 6:00 pm~~
- ~~September 4, 2024 from 4:00 to 5:00 pm~~
- ~~September 17, 2024 from 5:00 to 6:00 pm~~
- ~~October 2, 2024 from 4:00 to 5:00 pm~~
- ~~October 9, 2024 from 9:00 am to 4:00 pm (In-person meeting, Detroit, MI)~~
- ~~October 15, 2024 from 5:00 to 6:00 pm~~
- ~~November 6, 2024 from 4:00 to 5:00 pm~~
- ~~November 19, 2024 from 5:00 to 6:00 pm~~
- ~~December 4, 2024 from 4:00 to 5:00 pm~~
- December 17, 2024 from 5:00 to 6:00 pm
- January 21, 2025 from 5:00 to 6:00 pm
- February 18, 2025 from 5:00 to 6:00 pm
- March 18, 2025 from 5:00 to 6:00 pm
- April 15, 2025 from 5:00 to 6:00 pm
- May 20, 2025 from 5:00 to 6:00 pm
- June 17, 2025 from 5:00 to 6:00 pm

Attendance

- **Committee Members**
  - J.D. Menteer
  - Denise Abbey
  - Tamas Alexy
  - Maria Avila
  - Kim Baltierra
  - Jennifer Cowger
  - Kevin Daly
  - Jill Gelow
  - Timothy Gong
  - Jennifer Hartman
  - Earl Lovell
  - Cindy Martin
  - Mandy Nathan
  - John Nigro
  - Jason Smith
  - David Sutcliffe
  - Martha Tankersley
- **HRSA Representatives**
  - None
- **SRTR Staff**
  - Yoon Son Ahn
  - Monica Colvin
  - Grace Lyden
  - Nick Wood
- **UNOS Staff**
  - Cole Fox
  - Kelsi Lindblad
  - Eric Messick
  - Kaitlin Swanner
  - Sara Rose Wells
- **Other Attendees**
  - Shelley Hall
  - Glen Kelley
  - Daniel Yip