OPTN Pancreas Transplantation Committee
Meeting Summary
November 25, 2024
Conference Call

Dolamu Olaitan, MD, Chair
Ty Dunn, MD, MS, FACS, Vice Chair

Introduction

The OPTN Pancreas Transplantation Committee (the Committee) met via Cisco Webex teleconference on 11/25/24 to discuss the following agenda items:

1. Discussion: SRTR Report results

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

1. Discussion: SRTR Report results

The Committee received a presentation from the Scientific Registry of Transplant Recipients (SRTR) to review the modeling results on whether non-use and utilization can be modeled.

Summary of presentation:

A representative from the SRTR presented the key findings from the request to assess whether simulation modeling builds can answer the Committees research questions. The full data request and analysis plan can be found here. The SRTR determined that the collections of submodels (CSMs) showed a limited ability to replicate historical pancreas data for most research questions, and this was true regardless of whether utilization modeling was incorporated into the simulation. Additionally, the SRTR determined that the Committee should pursue alternative, non-simulation, methods for evaluating proposed allocation policies. The SRTR representative highlighted the main challenge is that there is a limited sample size to conduct the analysis. It was found that based on the historical data available the submodels overestimated non-use rates and were unable to provide accurate insight on utilization with variables such as donor age, geographic distribution, and cold ischemic time.

Summary of discussion:

No decisions made.

Another representative of the SRTR queried whether there should be a concern of the validity of the historical data, however, they also recognized the difficulties and challenges of pancreas transplant limiting the amount of available data, including donor team availability and logistical challenges. It was underscored that the unique nuances of pancreas transplantation do make simulation modeling challenging.

One member asked whether narrowing the focus of simulations to younger donors (under 40 years of age) could aid in yielding better submodel results. It was acknowledged that while focusing on the primary donor cohort could yield better insight, it would not rectify the issue of sample size limitations. Another member asked whether it would be possible to extend the historical data timeframe to improve

model robustness, but an SRTR representative cautioned this could lead to overfitting, without a guarantee of better results.

The SRTR representative offered an alternative for the Committee to consider, instead of using simulation modeling they recommended using a method called “match run analysis.” It relies on historical match run data to analyze allocation priorities, providing a simpler, deterministic alternative for evaluating policy impacts. The Committee would be able to view and analyze how factors such as distance, pediatric status, or CPRA may affect a candidate’s sequence number on the waiting list under current and proposed policies.

The Chair asked whether match run analysis can provide meaningful insight for assessing utilization. It was acknowledged that this would not be a capability of this type of analysis, since it does not analyze policy options in the same way as simulation modeling. However, it was noted that efficiency could be modeled, depending on what measures are being used to show efficiency. Example provided was that while it cannot be observed how far the organ will travel or when it is offered for transplant, but the distance a candidate is from the transplant center as well as how many transplant centers are represented within the first 20 sequence numbers can be shown and analyzed.

It was asked whether the match run analysis tool will be similar to the Tableau sensitivity tool that MIT created, one which could be adjusted to fit different attribute weights. Clarification was provided that the tool MIT built was an addition to the previous simulation modeling, using the same data and models and therefore having the same limitations as described. The Chair queried whether it would be possible to have a similar tool that could be as agile. OPTN Contractor staff provided some insight that additional tools are being built to allow for more agile and responsive analysis of the match run, however, these are still under development.

Committee members agreed that a match run analysis is the next logical approach to continue.

Next steps:

The Committee will work with both the SRTR and the OPTN Contractor to develop an appropriate approach for analyzing match run data and ensuring the right scales and weights for attributes for continuous distribution of pancreata.

Upcoming Meetings

- January 6, 2025

Attendance

- **Committee Members**
  - Asif Sharfuddin
  - Colleen Jay
  - Diane Cibrik
  - Girish Mour
  - Jason Morton
  - Jessica Yokubeak
  - Mallory Boomsma
  - Patrick McGlone
  - Neeraj Singh
  - Oyedolamu Olaitan
  - Stephanie Arocho
  - Shehzad Rehman
  - Todd Pesavento
  - Ty Dunn
- **SRTR Representatives**
  - Bryn Thompson
  - Jon Miller
  - Josh Pyke
  - Nick Wood
  - Peter Stock
  - Raja Kandaswamy
- **UNOS Staff**
  - Stryker-Ann Vosteen
  - Dzhuliyana Handarova
  - Cole Fox
  - Kristina Hogan
  - Lauren Motley