

OPTN Pancreas Transplantation Committee

Meeting Summary

November 7 2022

Conference Call

Rachel Forbes, MD, Chair
Oyedolamu Olaitan, MD, Vice Chair

Introduction

The OPTN Pancreas Transplantation Committee (the Committee) met via Citrix GoToMeeting teleconference on 11/7/2022 to discuss the following agenda items:

1. Welcome
2. Organ Allocation Simulation (OASIM) Attribute by Attribute: Proximity Efficiency

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

1. Welcome

Staff, the Chair, and the Vice Chair welcomed the Committee and explained the agenda for the meeting. In the next few meetings, the Committee will explore each attribute, review relevant modeling and public comment feedback, and begin to make decisions about a second Scientific Registry of Transplant Recipients (SRTR) modeling request, any changes to rating scales or weights, and any additional data to inform future conversations.

2. OASIM Attribute by Attribute: Proximity Efficiency

UNOS staff began by explaining rating scales and weights and how they factor into the calculated composite allocation score (CAS).

Staff showed the piece-wise linear rating scale that was decided upon by the Committee and modeled. The scale has an inner plateau to 50 nautical miles (NM) to account for candidates very close to the donor hospital but not disadvantage candidates slightly further away but still within close-range driving distance. The scale then slopes down to 250 NM as the "driving slope," as most organs within this distance are driven and not flown. After 250 NM, the scale has a gradual downward slope to 5000 NM to account for organs that would need to be flown.

For Proximity Efficiency weights, in the Combined Analytic Hierarchy Process (AHP) scenario, a 10 percent weight was modeled, whereas in the All Donor Efficiency scenario, a 30 percent weight was modeled.

Staff then reviewed public comment feedback:

- Feedback on the rating scale:
 - o Region 7 found the details of the scoring to be unclear and stated that proximity efficiency should matter more for Kidney-Pancreas (KP) and pancreas-alone than for kidney
 - o The American Society of Transplant Surgeons commented that proximity points within 250 NM may disadvantage rural candidates and advocated for changing the rating scale

- (no point difference within 250 NM, between 250-500 NM a gradual slope, and no additional points beyond 500 NM)
- Region 2 advocated for increasing the value of short distances in a non-linear fashion to account for the differences between driving long and short distances
- Feedback on attribute weight:
 - Region 10 commented that the Committee should prioritize cold ischemic time and distance ahead of pediatric and prior living donor
- Considerations for future enhancements to continuous distribution:
 - The OPTN Organ Procurement Organization Committee discussed including patient or center density as a metric within placement efficiency
 - Region 6 commented that cold ischemic time should be factored into the attribute

Data Summary:

Staff then showed the SRTR modeling output for proximity efficiency.

For pancreas alone and KP, under the Combined AHP scenario with a 10 percent weight on proximity efficiency, organs traveled much further than in current policy. For pancreas alone, under the All Donor Efficiency Scenario with a 30 percent weight on proximity efficiency, the median distance is reduced relative to current policy. This was even more pronounced for KP, which saw even more organs allocated closer to the donor hospital.

Staff also showed a graph from the Massachusetts Institute of Technology (MIT) modeling results showing the tradeoff between proximity weight and geographic disparity between regions. The graph demonstrated that as weight on proximity increases, geographic disparity increases.

Summary of discussion:

The Chair commented that proximity efficiency is difficult to model and discuss because of the lack of data available to model. A member asked for clarification on how distance may disadvantage rural candidates. Another member answered in more rural parts of the country, the distance between donor and recipient hospitals is greater, so these patients may be at a relative disadvantage. The Committee discussed if this is a trend that could be demonstrated by data, as the idea of a “rural transplant center” is rare. The Vice Chair added that this comment has come up several times, and each time, the Committee has seen that the disadvantage comes more from rural access to transplant center rather than access to transplant after listing, because the distance from the candidate to the hospital they are listed at is not accounted for.

A member asked if there are any transplant centers more than 250 NM away from a donor hospital. SRTR staff and the Chair discussed that there would not be a lot of situations where a center is not located within 250 NM of a donor hospital. The Committee discussed that they did not know much about utilization rates at very rural donor hospitals. The Chair added that rural candidates will always have a slight access issue relative to metropolitan candidates. SRTR staff explained that under all modeling scenarios, rural patients have lower transplant rates than urban populations, and that this did not differ based on the weight assigned to proximity efficiency. The SRTR did not model rural versus metropolitan transplant hospitals, only rural versus metropolitan candidates. A member explained that the rating scale is supposed to alleviate concerns about access but wanted to see concrete results from the scale.

The Chair asked if it would be worthwhile to model a rating scale without an inner plateau (slope down to 250 NM, then shallower slope from 250 NM onwards). She added that the shallow slope for flying is important because it is more costly to charter a flight the further the distance. The Vice Chair agreed

regarding the driving and flying slope, but discussed that the inner plateau is important to account for transplant centers very close together, because there is no relative proximity efficiency advantage within 50 NM. The Chair added that going 50-75 NM during rush hour in a metropolitan area is different than 50-75 NM in a rural area with no traffic.

A member added candidates can choose to be listed wherever they want within the constraints of their insurance. A member responded that this is a question of resource availability as a patient.

The Chair explained that the broader sharing within 250 NM was a good development with the transition to circles and that she was in favor of optimizing distance while minimizing geographic disparity. One member added that it would be helpful to see discard rate and 1-year graft survival. Staff answered that the SRTR is unable to model discard rate, however, MIT could look at 1-year graft survival. The Chair asked if the Committee could see data on how far pancreata are traveling under current policy. Staff answered that the median distance for KP is 110 NM and about 80 percent of KP stay within 250 NM.

A member asked if most pancreata are kept local, if there is any increase in transplant rate by offering to distant centers. The Vice Chair explained that one way to combat a high discard rate is to increase weight on proximity efficiency to ensure more pancreata stay local. The Chair agreed, adding that instead of minimizing distance, the Committee should focus on optimizing distance. The Chair added that center preparation is a huge factor as well.

The Vice Chair proposed the following edits to the rating scale for modeling: the first slope extends from 100 percent down to 50 percent at a distance of 110 NM. Beyond that, a second driving slope extends to 250 NM, and then a shallow flying slope. Staff responded that this is similar to the rating scale for kidney, which has a "driving/flying uncertainty zone" between the driving slope and flying slope. The Chair asked if this rating scale would show different results than just having a single slope where you always get some priority for proximity because it is hard to account for human factors, and the Vice Chair responded that it was a good idea to model. This would look like a slope from 100 percent down to 25 percent stopping at 250 NM, then transitioning to the flying slope. Another member agreed with this proposal, noting that getting rid of the inner plateau would simplify things and create less controversy. Another member opposed getting rid of the inner plateau, noting that distance is a surrogate for cold time. The Chair noted that the plateau only applies to dense metropolitan areas with multiple centers. An SRTR staff member added that the inner plateau was meant to not disadvantage candidates who may be listed close to a trauma center, but not at the trauma center itself. The SRTR can model without the inner plateau, but SRTR staff cautioned that the Committee may receive pushback on this.

The Vice Chair then discussed modeling a rating scale going from 100 percent at 0 NM to 10 percent to 250 NM to give more priority to organs allocated within the 250 NM. The Chair agreed that this would be interesting to model. SRTR staff noted this could be modeled and added that another tier could be added from 250-500 NM if the Committee desired. Staff reminded Committee members that there are a limited number of runs for the second modeling request so the Committee will need to keep this in mind when developing the second modeling request.

The Vice Chair discussed adding facilitated pancreas data to inform the rating scale, to try to determine where typical allocation ends and where aggressive facilitated pancreas offers begin. Staff will gather data on this and report back to the Committee.

A member asked if it is possible to model discard rates by match run divided by transplant occurring to see the whole picture of transplant rates. Staff responded that the SRTR is unable to model this.

SRTR staff pointed out that by nature, geographic variation in KP and pancreas is going to be high, and this is driven by location of centers more so than density of centers.

The Chair asked how the Committee felt about these discussions. An SRTR staff member summarized: there was a consensus to increase the slope for allocation within 250 NM ending at 10 percent, have the gradual slope for allocation beyond 500 NM, and there was still not a broad consensus on keeping the inner plateau.

The Chair discussed wanting to hear from centers that fly organs in as to whether they prefer to fly a shorter distance to inform discussions about the flying slope and how gradual it should be. An SRTR staff member explained that the argument for having a flat flying slope would be to not disadvantage aggressive centers further away who would still accept the organ, however, the Chair added that the number of organs in that category would be very few.

SRTR staff added that proximity efficiency is only one attribute, so any decision made on the rating scale will be balanced by the other attributes.

There was no further discussion. The meeting was adjourned.

Upcoming Meetings

- December 12, 2022 (Teleconference)

Attendance

- **Committee Members**
 - Rachel Forbes
 - Oyedolamu Olaitan
 - Antonio DiCarlo
 - Colleen Jay
 - Diane Cibrik
 - Jessica Yokubeak
 - Mallory Boomsma
 - Muhammad Yaub
 - Parul Patel
 - Rupi Sodhi
 - Ty Dunn
 - William Asch
 - Todd Pesavento
- **HRSA Representatives**
 - Jim Bowman
 - Marilyn Levi
- **SRTR Staff**
 - Bryn Thompson
 - Jonathan Miller
 - Raja Kandaswamy
- **UNOS Staff**
 - Joann White
 - Kieran McMahon
 - Krissy Laurie
 - Lauren Mauk
 - Lauren Motley
 - Lindsay Larkin
 - Sarah Booker