OPTN Thoracic Organ Transplantation Committee
Continuous Distribution Workgroup
Meeting Summary
June 18, 2020
Conference Call

Erika Lease, MD, Committee Vice Chair

Introduction

The Thoracic Committee's Continuous Distribution Workgroup met via Citrix GoTo teleconference on 06/18/2020 to discuss the following agenda items:

1. Ideas for Incorporating Efficiency in Continuous Distribution
2. Recognition of Outgoing Members

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

1. Ideas for Incorporating Efficiency in Continuous Distribution

The Vice Chair led the Workgroup in a discussion on how to incorporate efficiency in continuous distribution. UNOS staff noted that increasing the efficiency of the system may require a tradeoff in equity or medical urgency. UNOS staff asked the Workgroup to identify which efficiency measures should be included in the request for feedback going out for public comment this fall as well as the prioritization exercise that will be shared with the transplant community.

The Workgroup considered four approaches for including efficiency: (1) local recovery, (2) likelihood of offer acceptance, (3) candidate density rating scale, and (4) a generic proximity scale.

Summary of discussion:

Local Recovery

This approach would add a rating scale that promotes local recovery by giving maximum points to candidates for whom transplant programs are willing to accept locally recovered lung(s), and by giving lower ratings to candidates for whom transplant programs choose to travel for procurement.

The Vice Chair shared some of the Taskforce's concerns with this approach: (1) there is no system in place to ensure that people with the appropriate qualifications would be conducting the local procurement, and (2) local recovery sometimes costs more. Workgroup members raised additional concerns, including the availability of local teams; the fact that local recovery is not possible everywhere, and this approach would favor programs that are able to use local recovery; the possibility that programs might agree to local recovery and then choose to fly out; that it would punish candidates if their programs choose not to go local recovery; and that surgeons are not willing to move in this direction. A surgeon mentioned facing lots of challenges in local recovery over the last couple months, including local accessibility of surgeons and quality of procured organs, and said that the system is not robust enough right now to provide an incentive to do this. A member said that another risk is losing organs, since a usable organ for one program is a marginal organ for another. A member agreed, saying that increased use of ex vivo lung perfusion (EVLP)for marginal organs raises costs.

A member suggested looking at more data on this before the Workgroup considers including this in continuous distribution. Members agreed that in order to include this, there would need to be (1) wide availability of local recovery, and (2) clear data that local recovery translates into efficiency, either in terms of time or cost. The Workgroup agreed not to pursue this approach at this time.

Likelihood of Offer Acceptance

This approach would give priority to programs that are more likely to accept an offer. Likelihood of acceptance would be based on historical data and could be calculated three ways: (1) based on national trends, (2) based on program-specific behavior, or (3) based on candidate characteristics like lung allocation score (LAS). For example, programs might travel farther for candidates with higher LAS.

The Vice Chair expressed concern about predicting what a program is or is not willing to use. A member said the problem with this approach is it discourages programs from going out on a limb for the right offer in the right context. A member said that using the allocation system to change transplant program behavior is not the best way to achieve that goal. A member noted that each program weighs its risks and benefits and how the program is doing at any given time in terms of what offers they will accept, and teams may also have turnover, so this approach may not translate into behavioral change. A member said this disadvantages candidates listed with a conservative program. A member agreed, saying that if programs do not see offers that they might take in a unique circumstance, that stifles them from becoming more aggressive. The Workgroup agreed not to pursue this approach.

Candidate Density Rating Scale

This approach would incorporate population density to limit the number of different lung programs having candidates appear near the top of the match run. Distance attribute weight would vary depending on the density of active lung candidates "nearby" the donor hospital. The purpose is to give preference to a closer candidate when there is not a significant clinical difference between candidates.

A member said that the goal with this approach is to look at willingness to invest in travel as a function of how much of the waiting list can be captured with that travel. The distribution of candidate density around New York City shows that most lung candidates are close to the East Coast, so one does not need to travel very far to get that organ offered to 80% of the list. However, for a donor in San Diego, one would have to travel 2,000 miles to get to 80% of the list. Accordingly, it would make sense to invest more in travel from San Diego than from New York City, where "invest" refers to the higher-LAS candidates that will be receiving offers to justify that efficiency cost. This would depend on how much efficiency is weighted in the overall score. If efficiency has a small weight relative to medical urgency, then reaching higher LAS patients would still take priority over distance for the most part.

Members suggested that this approach would need to be linked to donor availability. For example, New York City is densely populated, but has low donor availability. This gets into OPO performance, which probably could not be taken into account in an allocation system. Another member noted that procurement rates are very different on the coasts than in the middle of the country. A member said this would disadvantage patients listed at a program that is more rural, provided there is equal OPO performance, and the advantage would be highest for the largest population centers. The member said that, in his opinion, rural centers are disadvantaged now, and should perhaps be given some points to improve access, though the member said that the Workgroup would need data to support this approach. A member thought this approach might give more points to candidates in less densely populated areas, though it would be a tiny boost. A member said that all population centers would not be treated the same, since San Diego would be treated differently from New York.

The member said he would like to see this modeled before throwing it out but acknowledged the concerns, particularly with respect to donor availability. A member said that her program is surrounded by water and does not get as many offers as a program in the middle of the country, so an approach like this makes sense. The member suggested that the donation area should be based on the number of potential donors. A member said a similar points scale could be constructed based on the potential for donors in relation to where the recipient is located, but it gets into the slippery slope of how to define that potential. If the potential is based on the number of organs procured, then that gets into OPO performance, but a different metric for potential donors might be acceptable.

UNOS staff asked whether members were thinking of this more as an equity measure, recognizing issues around the country relative to supply and demand, or whether this is focused on efficiency in terms of limiting the number of transplant programs that an OPO needs to contact to coordinate organ offers. A member said this was driven mostly by the efficiency component so that the complexity of the quantity of candidates as a function of distance is comparable for each donor, but acknowledged that there are equity components that are less clearly defined. UNOS staff noted that the analytical hierarchy process (AHP) structure is built on value judgments, and this approach would have to acknowledge that those value judgments would differ based on the density of an area. The importance of medical urgency relative to efficiency would vary. In a dense area of the country, LAS would matter less than distance, but the exchange rate would be very different in less dense areas of the country. A member said that density is just a small part of a complex equation. For example, when comparing two big states like California and New York, where donor registration rates are 90% in California and 50% in New York, those states have very different donor numbers, without accounting for consent and OPO performance and other factors. The member expressed concern about including this in lung allocation because it is complicated and may change access in unintended ways.

A member said that these concepts cannot be explored independently, so the OPTN cannot look at the demand side without looking at the supply side. A member noted that this issue has been raised consistently. A member suggested including this as an item for feedback to make sure the community's understanding is aligned with the sentiments of the Workgroup. UNOS staff explained that all of these concepts will be included in the paper so the community understands why the Workgroup chose to include certain concepts and exclude others.

Generic Proximity Scale

This approach is to add a generic proximity scale, either in addition to the cost rating scale, or in place of the cost rating scale. This would be a step forward relative to the current system, even though it does not get into the complexity of the other issues discussed on the call. UNOS staff noted that the transition from driving to flying is captured in the cost rating scale.

A member said that the impact on system performance is important and the Workgroup may need to pick a couple of different approaches for modeling it to see how they impact system performance. The Chair said that if the Workgroup chooses to include a generic proximity scale, it will be important to specify what feeds into it. For example, the Workgroup has already decided not to include ischemia time, so it needs to be clear that ischemia time is not a part of this proximity scale. UNOS staff suggested that it will be a composite of all the other issues that the Workgroup is discussing with a focus on efficiency, not other reasons for including distance.

A member said that efficiency does not have a linear relationship with distance because there are shelves. For example, the efficiency is much higher when receiving an organ from a local OPO than when traveling for an organ.

A member said that it makes sense to include efficiency when members are clinically similar, but in the context of a meaningful difference in urgency or access, then efficiency is less important. The member supported including efficiency on a small scale. A member said that is a value judgment that the Workgroup will make based on AHP.

A member said that this approach will disadvantage rural candidates. The member said that his transplant program's OPO is 500 miles away, so his program flies for all organs. His program is dependent on getting some organs from major metropolitan areas and those centers will get an advantage with this approach. The member said that this would further disadvantage patients that are already disadvantaged.

Next steps:

The Workgroup agreed that local recovery, likelihood of acceptance, and candidate density should not be included in continuous distribution at this time, but a generic proximity scale should be included in addition to the cost scale. Members felt it was important to distinguish between how much people value cost versus system efficiency in the AHP prioritization exercise.

2. Recognition of Outgoing Members

The Vice Chair and UNOS staff thanked the outgoing members of the Continuous Distribution Workgroup for their hard work.

Upcoming Meeting

- July 16, 2020 – Lung Transplantation Committee