

OPTN Continuous Distribution Workgroup

Meeting Minutes

October 10, 2019

Conference Call

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Introduction

The Continuous Distribution of Lungs Workgroup met via Citrix GoTo teleconference on 10/10/2019 to discuss the following agenda items:

1. Discuss SRTR report addressing travel assignments and mode

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

1. Discuss SRTR report addressing travel assignments and mode

The SRTR presented summary and findings from a September 27, 2019 data request by the Lung Subcommittee regarding travel time for lung transplantation. The request focused on estimating travel times between all lung transplant programs and donor hospitals. Using these estimates, assign travel mode of driving versus flying based on drive time cutoffs of 60, 90, and 120 minutes. Apply travel time estimates and travel mode assignments to two historical cohorts of transplant recipients. Report the proportions of organs predicted to have been driven and flown, and estimated median travel time, for each drive time cut point. Additionally, SRTR computed these metrics stratified (e.g. total ischemia time, donor hospital urbanity etc.).

Data summary:

Overall, estimates for median travel times were about 30 minutes for driving and 2 hours for flying, with little difference between the two eras. Considerable variation in total ischemia time by travel time grouping suggests that many factors other than travel may affect ischemic time. Organs for some subgroups were estimated to have been flown more or less than average, and many of those deviations were largely expected and induced by policy.

- Flying organs to pediatric recipients was more likely than to adults. Broader sharing of pediatric organs to pediatric candidates explains this finding, as does the small number of pediatric programs. This also explains higher median travel time for organs flown to pediatric recipients.
- Flying organs to diagnosis group C recipients was more likely than to other diagnosis groups. Group C includes a larger proportion of pediatric recipients, who receive offers of pediatric donor lungs out to 1000 NM in the first unit of allocation.
- In the DSA-first era, we estimated considerably more flying of organs to high-LAS recipients, and less to low-LAS recipients. This reflects the effect of local allocation, in which offers were made to low-LAS candidates in the DSA before any candidates outside the DSA. When the first unit of allocation was changed to 250 NM, fewer nearby low-LAS offers were made, and flying increased overall to recipients in all groups.
- Flying was more likely from non-metropolitan donor hospitals than from metropolitan hospitals.

- Higher estimated proportions flying was associated with higher total ischemia time.

Summary of discussion:

There was some confusion by a Workgroup member as to why centers were flying more in the recent DSA-free era (especially in regards to flying more within the 60-minute cut points post-DSA). SRTR clarified that the reason there is more flying post-DSA is that lung recipient-donor pairs are located farther away from each other. The cut point only indicates at what point centers are willing to fly based on estimates of how long it will take to travel. As shown in the overall percent flown, there is little difference in flying between 60- and 90-minute cut points. SRTR staff also clarified that this data is predictive, and not based on real-time data.

Workgroup members commented that they had expected Region 6 to have flown more than Region 11, however the predictive data shows otherwise. SRTR commented that an advantage of the travel time data is that usual geographies were able to be accounted for. The travel time estimates therefore are slightly better at taking into account geography versus straight-line estimates. As for Region 11, because the topography includes the Appalachian mountain range which is surrounded by large populations, this could help account for the higher percent flown in the DSA and DSA-free eras.

Another Workgroup member asked about how excluding perfused organs in the data could result in shorter travel time than ischemic time. SRTR stated that either travel times could be incorrect or the ischemic times could be incorrect. For example, ischemic time units might have been incorrectly documented, and SRTR modified some of the data because of this reason. This Workgroup member commented that it is challenging to predict travel time and ischemic time based on the data, especially when trying to use this analysis to predict post-transplant outcomes. The member cautioned against automatically correlating this data. Many Workgroup members agreed, and were concerned about the lack of correlation. Another member asked whether the data took into account a donor being moved from one location to the next. SRTR clarified that this was not taken into account, and data may not be available on this.

Based on this data, the conclusions can help inform the various continuous distribution attributes, especially in regards to efficiency and post-transplant outcomes. These conclusions will also help to further inform future data requests.

Upcoming Meeting

- October 17th (in person)