Systems Dynamics Work Group
OPTN/UNOS Ad Hoc Systems Performance Committee
Meeting Minutes
January 8, 2019
Conference Call

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Introduction

The Systems Dynamics Work Group met via Citrix GoTo teleconference on 01/08/2019 to discuss the following agenda items:

1. Review What We Have Heard
2. Gather Additional Feedback
3. Next Steps

The following is a summary of the Work Group's discussions.

1. Review What We Have Heard

Data summary:

The Work Group members will be polled to try to identify things that could be easily accomplished or high-impact items, so those things can be prioritized to bring to the full Committee.

Summary of discussion:

UNOS staff will be group feedback into themes prior to the March meeting. The Work Group Co-Chair feels there are two areas: 1) things OPTN and OPOs/transplant centers can drive forward as a community with little outside collaboration and 2) things referred to big hairy goals that requite CMS and others. It's okay to have some of each, while prioritizing what the group feels is necessary to improve the system. Conversely, the Work Group should not fixate on things they cannot impact entirely.

One member suggested that a column could be added to the spreadsheet of preliminary priorities, so that 2 or 3 or 4 items come out of the Committee at the end of the day. The goal for today is not consensus, but to get granularity in the framework. OPTN and UNOS staff would agree and would rather have a few well-flashed out ideas, rather than 30 not well-fleshed out ideas. The issue of the balance scorecard has to do with things that are/are not in control of OPTN, including SRTR reports.

SRTR and HRSA have been asked to be active partners in the process so this will be a coordinated effort so everyone is aligned. Committee members have a platform to say what they want next or what they're looking for next, so can consider UNOS/OPTN, HRSA, and SRTR as their audience.

One member felt it has been the Work Group's goal to put forth metrics that cover all areas of transplantation, and that they could bring payors along on that if they just lead the way by putting forth metrics that cover that balance scorecard.

Another member felt the goal was to say what the future state should look like, and asked who would pay for accumulating the metrics, many of which are not currently accumulated, and who

would do the analysis. Finances are always an important issue. The hope is to take talented and experienced people to figure out the future state.

Where the funding comes from depends on the types of metrics. The vision is for OPTN to develop metrics that they can measure using current data. The accessibility of data would be done through electronic health record interfaces. These are things OPTN would drive in terms of balance scorecard.

In terms of dashboard, things used for local QI efforts and local quality improvement or collaborative improvement projects, what was previously discussed was a hybrid between things provided by OPTN and things that are unique to OPOs or transplant centers. Funding would come from centers investing in those tools for quality improvement. The Committee first needs to build a structure that can be evaluated as to whether it is financially plausible and can be justified based on return on investment.

2. Gather Additional Feedback

Data summary:

Members were asked to review the documents/spreadsheet prior to the call and provide feedback of what may be missing, what is not on the document, and what rows not on the document need to be there in order to move forward.

Summary of discussion:

One question regarding OPO performance and current standard of metrics, was how to define eligible donors. The document does not provide a reasonable definition. What was discussed at an in-person meeting in Chicago was how to move from the current metrics to the metrics that are needed to better benchmark DSA performance. When thinking about the dashboard, members need to know what's going on in the OPO. One comment was that the OPO Work Group has been working for awhile with AOPO on a non self-reported metric comparing conversion of potential donation.

Requested actions were discussed in more detail.

1) Create analysis of OPO referral systems for non-donor cases.

   Clarification was requested on what the requested action means. A lot of the metrics are only donors, so it may refer to the broader capacity for donation. The hope is to capture some of the automated referrals that were talked about at the critical issues forum where there is a prompt in EHR to alert the user that the patient could possibly be referred to the OPO. It would be the ability to transfer that information to the OPO and initiate a referral electronically, resulting in earlier recognition of potential donors and increased efficiency of the referral process.

   Connectivity would be dependent on the hospital systems, which are not consistent around the country. One member's hospital HER system, for example, probably is not robust enough to integrate all these types of referrals. Some estimates of donor pools were noted to be extraordinarily high, which is likely a misunderstanding of the donor profile. The high numbers speak to how robust the system is and how fluent it is so that no opportunities are missed.

   From one member's standpoint, everyone is really looking at an analysis of OPO referral systems, so they should look at all referral data. The data falls into 3 categories, 1) no potential for donation, 2) have potential and are not converted, and 3) have potential and are converted. They will want to study donor potential in a prospective real-time way to understand how different areas can relate to each other. The deceased donor potential

is studied are based upon well-thought-through, but probably flawed models and numbers get skewed quickly with the number of deaths. No one really knows what the potential for donation is.

2) Accurate measure of donation potential and create transportation and logistics metrics.

   The transportation and logistics metrics are things to look at from a DSA perspective. One comment is that modeling has been done for situations such as a liver from Oklahoma to Miami takes X time, but there is no understanding of how difficult it is to get it to the plane, off the plane, and to the transplant center. The monitoring of transplant logistics is therefore important and should be studied.

   Research out of Michigan shows most of what has been recommended, has not been adopted. The need to have an integrated transportation system is shown to be important, getting away from everyone organizing one on their own. Interested parties will come together in the spring or summer to try to establish standards for the community around donor safety and donor efficiency. Two major problems are 1) the change in the allocation system that will dramatically increase number of organs that are flying and 2) there is a massive shortage of pilots and private aircraft.

   One member commented that an integrated system also includes the transition away from transplant center procurement and towards local procurement in settings when it is not necessary for technological reasons for the transplant center to procure the organs.

   The Committee needs to keep in mind purchasing collaborative or developing groups of aircrafts to rent out to others. There will be a meeting in Florida where ASTS should hopefully approve what has already been talked about regarding some of the issues around local recovery, etc. Developing an end-to-end communication tools is really important to make any of this possible.

3) Uniform and consistent definitions and collection of data regarding allocation process and citizenship metrics.

   Clarity was requested on the meaning of citizenship. It means looking at the decision of managing interaction with an organ offer in terms of how it will benefit patients at a center and how it will impact the system, taking into account the effect it will have on the candidates next on the list. For example, a late turn-down or accepting two offers simultaneously and pick at the last minute will benefit the transplant candidate at one center, but will harm the system. Once in the OR, the organs should be procured for someone else so the OPO doesn't have to wait and the process can move forward. The concept is an outstanding one, but will take work to build. Everyone has been frustrated by these issues, but have no way to track or measure them.

   Feedback was requested on whether citizenship metrics fit here as clearly or not. One comment was that in additional metrics, intraoperative decline was discussed. One center, for example, contributed to postoperative decline of a kidney, so data regarding both of those--intraoperative and postoperative decline--would be helpful. In addition, there is pre-allocation and differing levels of the impact of decline.

   How much of this is self-focused versus system-focused? In terms of citizenship metrics, some of those should be publicly available or available within the community. The point at which late declines hit the threshold for MPSC review versus a review within the local system or OPO should also be looked at.

   One question was whether there have been opportunities to build into UNet a button an OPO can push if and when a decline occurs (like a time stamp), so these things can be

tracked in a more rigorous fashion. One member felt that at least for livers, all intraoperative turn-downs should be reviewed as a joint quality issue to figure out what piece of information was obtained in the OR that they did not have going into it.

One point not discussed much is when the locus of decision-making is. This should be more of a focus since surgeons are not entering codes into DonorNet themselves.

There was OPO-mandated modification of language of additional metrics to say a standard review following, rather than intraop, to identify the process/communication issues. This is the type of document that could be housed in a UNOS SafetyNet since the transplant center and OPO both have to contribute information and allow for higher level of review of what happened.

4) Optimizing OPTN and non OPTN data/research tools already available.

   For this, it is important to get more granular data about decision-making time and time stamps within everything that happens in the process.

5) Enhancements to UNet.

   This refers to enhancing DonorNet to provide real-time information and imaging for biopsies, central reading, etc. In regard to the idea of two-way communication and creating a virtual donor OR so everyone being asked to look at the organ offer has relatively rapid access to the team on the ground.

   One comment was that in DonorNet right now, if one has a question for the coordinator on site, it is often difficult to figure out who the contact is and sometimes one has to go through three people to get to the coordinator on site. A contact button within DonorNet or attached that sends a text message or something to the OPO person on site would be helpful. The problem is not just in the OR, but for example if a bedside liver biopsy was needed for someone with a BMI of 40, figuring out who to ask to get it takes 25 minutes to an hour. The ability to hit a button to request an intraoperative test, etc, would be more efficient. A provisional yes should be a yes if X, Y, and Z happens.

   Having UNOS implement all of this is not practical. There are solutions that OPOs and even third party vendors have that should be looked at first. It will be important to work together.

6) Utilize user experience in technology development and deployment.

   It was unclear what this requested action meant and there were no further comments.

7) Creation of data exchange.

   As discussed before, this refers to using HER data, API or HL7 to bring data into the systems without requiring manual entry, as well as developing automation to the work. On the outcomes side, there is a potential for EHR data to generate an event (identification of a potential donor for a local program or OPO). Several organizations are currently working on ways of identifying donors, so they should be involved in this process as well.

   One question was whether the creating the analysis of the OPO referral system was being distinguished as more of an EHR transplant TIEDI interaction or reflecting on the action above. The hope to have that happening both on the donor hospital side and transplant center side.

8) Utilize systems dynamics modeling as a strategy.

   These will help predict the impact of different changes that might be made on the overall system. When thinking about where to tweak things in the overall system, it's about modeling the impact on end point.

9) Implement “Acceptance Benefit” predictive analytics into UNet.

   This was also discussed at the Alliance Forum of trying to help transplant centers decide whether or not they should take a given offer for their patient.

10) Create a balanced scorecard to comprehensively evaluate the national transplant system performance.

    The key here is understanding what is meant by the elements of the "balanced scorecard," and this needs to be made clear in the document. Things important to patients should be included in the scorecard set of metrics.

    One comment emphasized the fact that each member of the workgroup needs to take time to look over the document and include anything they feel should be part of the balanced scorecard. A group will have to work on how to develop that scorecard, what is possible, and what needs to be done to make it possible down the road. In addition, the scorecard will include outcome metrics that are patient-centered, including citizenship metrics, how the transplant center contributes to the overall system performance, and process metrics.

    One member felt that people know they're being bad citizens now. They make decisions about their own patients first. The issue is more that the process needs to hold people's feet to the fire because there's no consequence right now.

    For clarification, the "balanced scorecard" is the publicly-reported information. The dashboard is what people are using to drive their own collaborative project with their neighbors.

    The citizenship metric doesn't necessarily need to be in the publicly-reported data, but in the collaborative data. For example, there are currently not many high KDPI kidney transplants because there are a lot of barriers against them and not because they don’t know them. One member felt the focus should be more on providing more data and the COIIN project, and having people be responsible for what they're doing and not doing. The Co-Chair felt the balanced scorecard should be a set of information for MPSC to use to drive the collaborative improvement process of using all these metrics. Down the line this could move into policy creation that would be overseen by MPSC or self-policed. At least some of the elements could be driven down into the dashboard so people know where they stand on the balanced scorecard metrics and could reach out to partners if an area of potential improvement is seen.

    One problem the Work Group should think about is the underlying population. To have a balanced scorecard about serving the needs with end-stage organ disease, a denominator is needed, and they need to think about how to capture that denominator. For example, the kidney denominator is patients on dialysis. For organs, there isn't really a denominator.

3. Next Steps

The members will evaluate the documents and if they have any additions or ideas for the spreadsheet document based on today's conversation, they should do so by the end of the

week. Those things should be easily achievable within the framework of OPTN and transplant centers and OPOs. An updated document will be distributed in about a week.

Additional feedback could fall under one of the themes discussed today, which were 1) organizing elements of the balanced scorecard in terms of how it should be used, as well as the metrics, 2) dashboards including how collaborative improvement should be used to leverage those elements, 3) leveraging technology to improve the allocation process, 4) transportation and a more integrated system, and 5) finances of transplantation and reimbursement structure.

On the February call, the Work Group members will finalize prioritization of what they want to recommend to go forward for the March 2019 in-person meeting.

Upcoming Meeting

- February 12, 2019
- March 11-12 in person at Chicago