OPTN Membership and Professional Standards Committee
Performance Monitoring Enhancement Subcommittee
Meeting Summary
December 18, 2020
Conference Call

Richard Formica, M.D., Chair

Introduction

The Performance Monitoring Enhancement Subcommittee of the Membership and Professionals Standards Committee (MPSC) met via Citrix GoToTraining teleconference on December 18, 2020, to discuss the following agenda items:

1. Welcome and Agenda
2. Introduction to Review Process
3. Review Process and Characteristics of Thresholds
4. Next Steps

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

1. Welcome and Agenda

The Performance Monitoring Enhancement Subcommittee Chair provided a high level overview of the project and reviewed the objectives of the meeting. The Subcommittee Chair noted that the subcommittee agreed on the individual metrics for the scorecard. The Subcommittee Chair provided a brief overview of the topics for discussion – the performance review process and characteristics of thresholds. The Subcommittee Chair also provided a high level summary of a possible two-level flagging system which would include an intervention level and a cautionary level. Staff advised that the subcommittee would discuss the possibilities for the review process and would provide recommendations to the MPSC.

Subcommittee members asked about the expectations of the SRTR and OPTN contracts with HRSA about performance metrics. Jon Snyder, SRTR Director, responded that the SRTR is charged with providing metrics for public consumption through an open publicly available website. He explained that prior language in the contract included "programs with better or worse metrics shall be identified." He advised the subcommittee that the SRTR would support the needs of the MPSC. However, those needs and requests are not necessarily guided by the contract. Staff advised the subcommittee that the OPTN contract does not provide specific details on what the expectations are for performance metrics. Staff advised that language from the contract would be provided to the subcommittee for reference.

2. Introduction to Review Process

Staff highlighted previous discussions about the performance review process. The Subcommittee previously discussed transitioning the performance review process from a paradigm of competition with each other (programs) to competition with the disease. Staff noted that the subcommittee mentioned other ideas for the review process which could include a tiered intervention if the program is outside an acceptable range. The tiered response would include a caution zone and an intervention zone.

- Caution zone (yellow zone): A notice would be sent to program that would encourage self-evaluation and could include an offer of Member Quality performance improvement assistance from a catalog of services.
- Intervention zone (red zone): MPSC intervention to help program due to patient safety concerns or system performance concerns that affect strategic goal to maximize transplants

Feedback by the Subcommittee:

The Subcommittee discussed other options for the performance review process. A subcommittee member suggested the possibility of a mentorship program for programs that are in caution and/or intervention zones. Other subcommittee members agreed to the current recommendations and agreed that education and assistance in using the data tools in UNet^{sm} would be valuable for programs to maintain control of their own performance metrics.

3. Review Process and Characteristics of Thresholds

The SRTR Director gave a presentation on screening rules and defining the characteristics of thresholds with the subcommittee. The presentation provided information to help the subcommittee understand how the current screening rule was developed and the different ways to select thresholds, either through clinically meaningful differences as illustrated by unacceptable survival percentages or through an optimized properties of the test as illustrated through the use of true and false positive rates. The Director addressed the concept of caution and intervention zones. He then encouraged the subcommittee to consider at what point MPSC engagement with a transplant program would be needed.

The Director described a diagram from the American Journal of Transplantation (AJT) called "Improving the statistical approach to health care provider profiling", published by Christiansen & Morris in 1997. The example diagram showed a probability distribution curve that measured the "true mortality rate" of 3 hospitals. The Director explained that the curves in the diagram can be used to estimate metrics. Using this example, the Director noted that the committee could use curves to decide an acceptable cutoff value by determining where the cutoff should be using the population mortality rate. The Director explained that the current performance criteria was developed using this process and gave an example of the hazard ratio cutoff currently used by the MPSC.

The Director explained the two parts of a criterion under this process include:

- The cutoff which is the level of true performance that would be a concern. If a program were truly this bad (or worse), the MPSC would want to take action.
- The confidence in the assessment which is the level of certainty that a program is truly worse than the cut off. This is expressed as probability.

The Director explained that in the current MPSC algorithm, cutoff values are hazard ratios of 1.2 and 2.5 and confidence values are 75% and 10%, respectively. He provided diagrams, which showed the current screening rules used by the MPSC. He also provided a visual of the curves for the MPSC performance criterion and a diagram that compared the curves for the MPSC criterion to the previous Centers for Medicare & Medicaid Services (CMS) criteria.

The Subcommittee reviewed three possible options to identify the characteristics of the threshold:

- **Option 1: Decide on false positive and false negative targets and SRTR will search for optimal boundaries** – The Director advised that the current boundaries for the MPSC were constructed in 2013 using option 1. He described the process for developing the current flag boundary using diagrams from an AJT article, which demonstrated the true and false positive rates of the current

MPSC flag boundary. The MPSC would need to provide the SRTR with the targets for false positive and false negatives.

- **Option 2: A fixed cutoff is assigned to a standardized survival percentage no matter what the national survival rate is.** The Director explained that the MPSC could choose a fixed cutoff value for standardized survival percentage (ex. 90%). Then, the SRTR could determine what the properties of that test would be by determining the estimated probability of surviving at 1 year had the program transplanted every recipient in the nation. This rescales the program's hazard ratio to an overall survival score, which essentially involves multiplying the national survival rate by the hazard ratio for the program.
- **Option 3: A fixed difference cutoff is assigned to be some fixed difference from the national survival rate.** The Director explained that option 3 is similar to option 2 but rather than an absolute fixed cutoff, the cutoff is based on some absolute fixed difference from the national survival rate, for example, the threshold is 5% lower than the national average. If national average improved or declined, the cutoff would move using 5% below the national average rather than a fixed cutoff that never moves.

The Director next described illustrations of liver, heart, kidney, and lung program waitlist mortality rate to demonstrate the distribution of programs for this metric. The illustrations included a scatter graph, a box plot, and a table with examples of the excess deaths that would be equivalent to different hazard ratios based on various program person years size. Finally, each illustration provided the spread for the programs. Additionally, he provided examples using kidney and lung offer acceptance as well.

<u>Feedback by the Subcommittee:</u>

The Subcommittee Chair requested SRTR provide the subcommittee with a range to show how far the standardized performance of a program would deviate from a program's actual performance at the next meeting. The chair advised that standardization should vary based on the programs population of patients.

Subcommittee members agreed that it is important to make the best clinical judgement to determine the starting threshold, but also acknowledged the thresholds may need to be changed after roll out once an evaluation is done. A Subcommittee member stated that it is challenging to come up with a threshold from a national perspective, and it may be easier to get local perspective from individuals within their programs.

The Subcommittee agreed that the thresholds do not need to be the same for every organ. In addition, the Subcommittee members noted that the MPSC must carefully consider the thresholds in order to not disincentive listing sicker patients. The threshold can be adjusted appropriately. SRTR responded that the graphs show differences in the spread of each organ type. If the MPSC is going to accept the possibility of a dropping national average survival, then there must be a commensurate increase in the number of transplants. It may want to consider evaluating whether a program's transplant volume has increased when the patient survival has decreased. Another subcommittee member noted that evaluation of offer acceptance rate may serve the purpose of determining whether a program is taking on risk and increasing transplants when the program's post-transplant outcomes are decreasing.

A subcommittee member posed the question whether doing really well in multiple areas could counteract lower performance on another metric. The MPSC chair noted that we could consider something similar to CMS's OPO metrics, must meet the thresholds for 2 out of 3 of the metrics.

The Subcommittee responded to two straw polls. The Subcommittee unanimously supported a two-zone approach including a caution zone and an intervention zone.

On a second poll, there was majority support (88%) for use of a fixed difference cutoff threshold (option 3) while 12% of subcommittee members supported a fixed cutoff threshold (option 2).

The Subcommittee Chair requested that the SRTR provide examples of representative outcomes for a 3%, 5%, 7%, and 10% cutoff for the four metrics for all organ types (heart, lung, kidney, and liver) at the next meeting. SRTR responded that an equivalent representation could be provided as an example for waiting list mortality and offer acceptance rate.

The SRTR staff pointed out that the MPSC will also need to consider the probability that a program is below the cutoff.

The Subcommittee Chair asked the subcommittee to consider and think about how to identify smaller volume programs in need of improvement.

4. Next Steps

For the next meeting, the Subcommittee Chair asked the subcommittee members to be thinking about what is clinically important and how it would apply to specific organs and practices.

Staff will send a poll to subcommittee members to schedule the next subcommittee meeting.

Upcoming meeting

January 19, 2021, 2:00 pm – 4:00 pm, ET: MPSC Meeting

Attendance

- **Committee Members**
  - Richard N. Formica Jr (Subcommittee Chair)
  - Sanjeev K. Akkina
  - Nicole Berry
  - Errol L. Bush
  - Matthew Cooper
  - Adam M. Frank
  - Michael D. Gautreaux
  - Ian R. Jamieson
  - Christy M. Keahey
  - Mary T. Killackey
  - Jon A. Kobashigawa
  - Jules Lin
  - Didier A. Mandelbrot
  - Virginia(Ginny) T. McBride
  - Willscott E. Naugler
  - Matthew J. O'Connor
  - Jennifer K. Prinz
  - Lisa M. Stocks
- **HRSA Representatives**
  - Marilyn Levi
  - Arjun U. Naik
  - Raelene Skerda
- **SRTR Staff**
  - Nicholas Salkowski
  - Jon J. Snyder
  - Bryn Thompson
  - Andrew Wey
- **UNOS Staff**
  - Sally Aungier
  - Nicole Benjamin
  - Tameka Bland
  - Robyn DiSalvo
  - Nadine Drumn
  - Amanda Gurin
  - Danielle Hawkins
  - Amy Minkler
  - Jacqui O'Keefe
  - Sharon Shepherd
  - Leah Slife
  - Stephon Thelwell
  - Gabe Vece
  - Betsy Warnick
- **Other Attendees**
  - None