![OPTN ORGAN PROCUREMENT AND TRANSPLANTATION NETWORK — Meeting Summary]

OPTN Organ Procurement Organization Committee
Technology Tools Workgroup
Meeting Summary
May 25, 2022
Conference Call

David Marshman, Workgroup Chair

Introduction

The OPTN Technology Tools Workgroup (the Workgroup) met via Citrix GoToMeeting teleconference on 05/25/2022 to discuss the following agenda items:

1. Welcome and Updates
2. Review of Final Data Elements
3. Update on Enhancement Efforts

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

1. Welcome and Updates

Staff provided an overview of the Workgroup's previous discussions and the progress of the Donor Data Collection project.

The Workgroup previously reviewed feedback from the Data Advisory, Transplant Coordinators, and Heart Transplantation Committees and finalized their recommended donation after circulatory death (DCD) data collection. The Organ Procurement Organization (OPO) Committee voted to endorse the proposed data collection for distribution during the August 2022 public comment cycle.

Summary of discussion:

The Workgroup had no questions or comments.

2. Review of Final Data Elements

The Workgroup reviewed their finalized data elements and discussed where and how these elements should be collected within the OPTN Donor Data and Matching System.

Presentation Summary:

The following DCD-related data elements are proposed to be added to the OPTN Donor Data and Matching System:

- Withdrawal of life sustaining medical support – date and time
- Cessation of circulation – date and time
    - Will be added to both the Deceased Donor Registration (DDR) form and to the donor record in the OPTN Donor Data and Matching System
- Abdominal aorta flush time (in situ) – date and time
- Portal vein flush time (in situ) – date and time
- Thoracic aorta flush time (in situ) – date and time
- Pulmonary artery flush time (in situ) – date and time
- Oxygen Saturation, SpO2

<u>Summary of discussion:</u>

The Vice Chair of the Patient Affairs Committee (PAC) asked how this information is added to the OPTN Donor Data and Matching System. Staff explained that OPOs can utilize an extensible markup language (XML) upload process to upload data from electronic donor management systems. OPO users may manually enter or manipulate data, or export that data into the OPTN Donor Data and Matching System from the electronic donor record (EDR). Staff explained that this is also true for the deceased donor registration (DDR) form.

Core Cooling and Flush Time

The Chair noted that incoming updates to the DDR as part of the *Modify the DDR Form* proposal, approved by the Board of Directors in June of 2021, included a modification to collect flush time for brain dead and DCD donors.

Staff shared that flush time would be included on the "Organ Data" page of the OPTN Donor Data and Matching System, but would no longer be contingent on the donor being marked as a DCD donor. The Chair agreed that this made sense.

The Chair recommended getting input from the OPTN Transplant Coordinator and Transplant Administrator Committees on the most logical place to display flush time data, since they more regularly take organ offers.

Cessation of Circulation and Withdrawal of Support

The Chair remarked that the question regarding controlled or uncontrolled DCD will remain in the Data System for Organ Procurement and Transplantation Network as it acts as a validator for DCD donors that have support withdrawn, as opposed to uncontrolled DCD donors, which are brain dead donors that go into cardiac arrest and must be rapidly moved to organ recovery. The Chair noted that the "unknown" response option for this will be removed, as there is never a circumstance where it is unknown if the donor was a controlled or uncontrolled DCD.

Display of DCD Data

The Chair commented that the DCD data fields should be displayed chronologically on the overall donor summary page, starting with withdrawal, cessation, pronouncement, cross clamp, and then calculated cold ischemic time. For brain dead donors, the withdrawal and cessation fields would be greyed out or blank.

Oxygen Saturation, SpO_2

One member confirmed that SpO_2 is the oxygen saturation based on the pulse oximeter reading. Staff asked the Workgroup to describe why SpO_2 is associated with DCD progression as opposed to general donor data collection, and one member explained that OPOs use oxygen saturation to determine when warm ischemic time should start, similar to blood pressure. The member noted that SpO_2 would be collected as serial data, similar to blood pressure or heart rate. The member added that SpO_2 isn't always as accurate as other measures.

The Chair pointed out that SpO_2 is already collected on the DDR, and explained that it is used to calculate the agonal phase, based on the systolic blood pressure or SpO_2 less than 80 percent. The Chair noted that SpO_2 is only uploaded for DCD cases. Staff explained that the data is specific only to the DDR, and doesn't cascade from the OPTN Donor Data and Matching System.

Staff asked the Workgroup if it made more sense for SpO_2 to be collected with vital sign readings, where blood pressure is currently collected, to allow it to be uploaded as part of that data set regardless of the

donor's DCD status. One member remarked that the SpO_2 is helpful to evaluating a DCD organ offer, and most OPOs upload DCD-related vitals as an attachment. The member added that the SpO_2 information would be more helpful in the donor summary.

Staff asked the Workgroup how the data can be collected to align with current EDR integrations. The Chair responded that EDRs have the capability to collect SpO_2 data, but not all OPOs collect electronically as opposed to manually. The Chair continued that most OPOs likely are uploading SpO_2 data to the DDR from the EDR.

The Chair expressed concerns about displaying SpO_2 along with donor management data, noting that the SpO_2 information is like a snapshot in time. The Chair noted that this information could become lost if it's considered with the rest of the donor management data. Staff explained that the actual displaying of the data can always be broken out for the purposes of evaluation, but how the data is collected from the EDR and stored can be different. Staff elaborated, asking if it would be preferable to have separate serial data collection for SpO_2 or instead to align the SpO_2 data collection with other serially collected measures, knowing that the actual display for transplant programs can be separated out. The Chair agreed that it would make more sense to include SpO_2 as part of currently collected serial data. The Chair explained that most EDR systems collect it separately, and that the oxygen saturation has its own data base value. The Chair added that the display of the SpO_2 is most important to effective data collection and information sharing.

Staff noted that previous Workgroup discussions singled out oxygen saturation, blood pressure, and heart rate as key hemodynamic values during the DCD process. Staff asked the Workgroup if keeping those values within donor management will allow transplant programs to easily access this information, or if the values will continue to get lost. The Chair responded that programs will be able to find what they are looking for, but that the oxygen saturation, blood pressure, and heart rate will need to be carved out from the data base values and displayed separately for evaluation.

3. Update on Enhancements Efforts

Staff presented an overview of enhancements to medications and fluids data collection in the OPTN Donor Data and Matching System.

Presentation summary:

Enhancements to medications and fluids will introduce serial data collection for the following existing fields in the OPTN Donor Data and Matching System:

- Steroids
- Diuretics
- Triiodothyonine (T3)
- Thyroxine (T4)
- Insulin
- Anti-hypertensives
- Vasodilators
- Desmopressin (DDAVP)
- Arginine Vasopressin
- Total Parenteral Nutrition
- Heparin
- Other, Specify

This serial data collection will follow the same pattern as inotropic medication data is collected currently, with begin date and time, end date and time, value, and unit of measure. Intravenous (IV) fluids will not change to serial data collection. Some fields will require specification text, including steroids, diuretics, anti-hypertensives, vasodilators, and other, specify. Total parenteral nutrition will have optional specify text. There is currently no plan to change how medications and fluids data is collected in the DDR.

Summary of discussion:

Staff asked the Workgroup how the transition to serially collected medications and fluids data from static data collection, noting that there will be gaps in the data for active and closed donor records that exist when the transition is complete. The Chair remarked that going forward from the transition, serial data would be collected, but cases in progress or closed would maintain the current data collection format. The Chair added that this could be technically difficult in terms of ensuring the EDRs upload correctly.

The Chair agreed that this data should not cascade to the DDR, since DDR data collection for medications and fluids will not be updated.

Upcoming Meeting

- TBD

Attendance

- **Workgroup Members**
    - David Marshman
    - Hannah Copeland
    - Deb Cooper
    - Peter Abt
    - Erica Simonich
- **HRSA Representatives**
    - Marilyn Levi
    - Jim Bowman
- **SRTR Staff**
    - Katie Audette
- **UNOS Staff**
    - Robert Hunter
    - Kayla Temple
    - Lloyd Board
    - Katrina Gauntt
    - Kaitlin Swanner
    - Ross Walton
    - Bonnie Felice
    - Matt Belton
- **Other Attendees**
    - Molly McCarthy