

OPTN Machine Perfusion Data Collection Workgroup

Meeting Summary

November 20, 2024

Conference Call

Theresa Daly, MS, RN, FNP, Chair

Introduction

The OPTN Machine Perfusion Data Collection Workgroup (the Workgroup) met via WebEx teleconference on 11/20/2024 to discuss the following agenda items:

1. Review of Normothermic Regional Perfusion (NRP) Workflow
2. Review of NRP Data Elements

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

1. Review of NRP Workflow

Presentation Summary

The workgroup reviewed a flow chart of the NRP process to visualize when various data elements are collected beginning with the Organ Procurement Organizations (OPO) generating match runs and ending with post-transplant forms. The workgroup will use this flow chart to help make determinations of where new or changed data elements should be collected during the NRP process.

Summary of Discussion:

No decisions were made regarding this agenda item.

No discussion was had on this agenda item.

Next steps:

The Workgroup will continue to review the NRP workflow as needed.

2. Review of NRP Data Elements

Presentation Summary

The Workgroup went through the following data elements to review information about each data element and determine the purpose of each data element.

Organs Available

- This data element is collected in the OPTN Donor Data and Matching System and in the Deceased Donor Registration (DDR) forms
- There is no current definition for this data element

Organs being recovered Using NRP

- A proposed purpose of this data element is to identify all organs being recovered using NRP
- This data element is defined as indicating which organs will be recovered using NRP

Organs Placed (Final Acceptance)

- This data element is collected in the OPTN Donor Data and Matching System
- This data element is defined under OPTN policy as when the transplant hospital notifies the host OPO that it accepts the organ offer for an intended recipient, pending review of organ anatomy. For kidney, acceptance is also pending final crossmatch.

Thoracoabdominal Normothermic Regional Perfusion (TA-NRP) or Abdominal Normothermic Regional Perfusion (A-NRP)

- The proposed purpose of this data element is to collect information on which type of NRP is utilized for individual donors
- This data element is defined as indicating which type of NRP was utilized

Heparin Administration

- This data element is collected in the OPTN Donor Data and Matching System and in the DDR forms
- The proposed purpose of this data element is to identify and evaluate the use of heparin during organ procurement to analyze the impact on graft function
- There is no current definition for this data element

Time of Withdrawal of Life Sustaining Measures

- This data element is collected in the DDR forms
- This data element is defined in the DDR as the withdrawal of life sustaining treatments; the actual point where the patient's attending physician or designee begins the process of removing life sustaining treatments

Systolic Blood Pressure (SBP50) Intervals

- A proposed purpose of this data element is to identify the start of functional ischemic time or agonal phase
- The American Society of Transplant Surgeons (ASTS) recommended this data element be defined as the time from the first minute that systolic blood pressure drops below 50 until the start of NRP in the donor

Summary of Discussion:

No decisions were made regarding this agenda item.

The Workgroup discussed the organs being recovered using NRP data element. They debated when this data element should be collected within the NRP workflow. The Workgroup felt that collecting this element before allocation would not be practical as often the decision to use NRP during recovery is not made until after allocation. They also discussed collecting this data element during the donor feedback process but felt that collecting the data then would be too late in the process. Some members of the Workgroup expressed an opinion that this data element needed to be collected before the operating room (OR) time for organ recovery was set so that in the event organs needed to be reallocated that information could be conveyed to all parties.

The Workgroup also discussed if the organs being recovered using NRP data element needed to be broken up into two parts. First collecting the intent to use NRP for organ recovery and then collecting if NRP was actually used during organ recovery. The rationale was this could help capture the success rate

of NRP which could help the community make informed decisions on NRP use and future policy. The Workgroup also discussed if they should attempt to capture reasons why NRP was not used when it was intended to be used for recovery. Some workgroup members felt this could become too complicated even if the information would be beneficial to collect.

The Workgroup discussed responsibilities surrounding the organs being recovered using NRP data element. One member asked if the OPO or the transplant center should be responsible for entering this data. Another member noted that transplant centers do not have access to the OPTN Donor Data and Matching System, so it would need to be the OPOs that enter the data. One member suggested that the surgeon performing NRP and their association should be captured in this element, but another member responded that information would be better captured in the DDR.

The Workgroup discussed how the heparin administration data element is currently collected. At present it is designed to capture when heparin administration begins, when it ends, and how many units of heparin are administered. The Workgroup discussed if this was sufficient or if it would be more beneficial to capture where the heparin was administered, such as into the NRP circuit or directly into the donor. If the heparin was administered into the circuit, at which point it was administered. The Workgroup felt that while that information would be good to have, collecting it may be difficult and time-consuming as individual institutions have their own preferences and NRP set ups will likely rapidly evolve. The Workgroup also raised the question of whether it should only be documented when heparin is administered, or should it be documented when any anticoagulant is given?

Next steps:

The Workgroup will continue to discuss these data elements in subsequent meetings.

Upcoming Meeting

- December 18, 2024

Attendance

- **Committee Members**
 - PJ Geraghty
 - Stephen Gray
 - Micah Davis
 - Aaron Ahearn
 - Chris Sonnenday
 - Christine Maxmeister
 - Jason Smith
 - Matthew Hartwig
 - Reza Saidi
 - Anja DiCesaro
 - Snehal Patel

- **HRSA Representatives**
 - Raymond Lynch

- **SRTR Staff**
 - Katie Audette
 - Jonathan Miller

- **UNOS Staff**
 - Robert Hunter
 - Kayla Temple
 - Alina Martinez
 - Houlder Hudgins
 - Kaitlin Swanner
 - Kevin Daub
 - Joel Newman