

## **OPTN Machine Perfusion Data Collection Workgroup**

### **Meeting Summary**

**April 16, 2025**

**Conference Call**

**PJ Geraghty, MBA, CPTC, Chair**

### **Introduction**

The OPTN Machine Perfusion Data Collection Workgroup (the Workgroup) met via WebEx teleconference on 04/16/2025 to discuss the following agenda items:

1. Review of Normothermic Regional Perfusion (NRP) Data Elements
2. Continue Machine Perfusion Data Discussion

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

### **1. Review of NRP Data Elements**

#### Presentation Summary

The Chair reviewed the list of proposed NRP data elements.

Data elements awaiting implementation include:

- NRP Recovery
- Initiation of NRP
- Four Flush times

Data elements being added include:

- Second cross clamp time
- NRP Run Time, end time (start time awaiting implementation)
- Organs intended to be recovered using NRP
- Thoracoabdominal NRP vs Abdominal NRP
- Total Heparin Administered into the NRP Circuit
- SBP50 Intervals (Require OPO to enter vitals on minute-by-minute basis)
- Lactate Levels

#### Summary of Discussion:

**No decisions were made regarding this agenda item.**

#### *Hematocrit*

The Chair noted that the OPTN Membership and Professional Standards Committee recommended adding a data field for hematocrit and asked for feedback from the Workgroup. A member asked at which timepoints the hematocrit would be reported. The Chair suggested that hematocrit would be

reported similarly to lactate levels in that the system would not limit the number of values that would be reported. The system would allow for serial data collection which would also capture the date and time at which the value was collected, and the value would be reported out to two decimal places.

#### *Organs intended to be recovered using NRP*

The Workgroup discussed how to collect data for “organs intended to be recovered using NRP.” The Workgroup previously discussed reporting the “intent to recovery using NRP” within six hours of the donor operating room (OR) time. The Workgroup discussed that the OR time can be a moving target and it may be more appropriate to report this information prior to sending electronic organ offers. The Chair suggested there should be an option to report if a transplant program requests NRP recovery and whether it is permitted by the donor hospital. The Workgroup discussed how to document information in the system at the time a transplant program is receiving an offer if NRP is not planned for recovery but could be performed if requested by a transplant program. Organ Procurement Organizations (OPO) representatives noted that they typically provide information in Donor Highlights about the type of recoveries planned and/or available. The Chair asked if the information should be tied to the individual organ in terms of planned recovery type, but there would need to be some opportunity to change it if needed based on a request from a transplant program. A member noted that planning to do NRP and actually do NRP are different things that would need to be documented separately. The Workgroup discussed collecting these as separate data points to capture if NRP was planned but was not successful.

#### *Cross Clamp Time*

The Chair reviewed previous Workgroup discussions which recommended removing the current cross clamp time reporting and adding a second cross clamp time. The Chair noted that what the community commonly refers to “cross clamp time” is the time at which cold flush starts, and those times may differ for organs from the same donor. The Workgroup considered adding a new field for “NRP cross clamp” to document when A-NRP is used for abdominal organs while thoracic organs are being procured using standard rapid recovery. The Workgroup recommended referring to “flush time” instead of “cross clamp.” A member noted there would be a lot of other downstream changes in the forms used to document operating room procedures and recommended not making this change at this time when there are so many other new requirements being imposed on transplant programs. The member suggested creating a new data field rather than trying to redefine a concept that already exists. The Chair explained that historically, all organs had the same flush time which occurred at the time of cross clamp, but with NRP the organs may be flushed at different times e.g. the heart and lungs may be flushed and recovered while the abdominal organs are undergoing NRP. With only one cross clamp time documented in the system, some of the organs will have an incorrect ischemic time documented in the system. A member supported removing cross clamp time. A member suggested providing an option to report additional cross clamp times. The Chair noted that with TA-NRP, there is still only one cross-clamp time, so the extra reporting is only needed when thoracic organs are recovered via rapid recovery and the abdominal organs are recovered via NRP. The Chair requested that contractor staff provide recommendations for how to best address this need in the system in a way that minimizes disruptions to how information flows through the system. The Chair noted that the cross clamp time and flush time are essentially the same thing for the transplant program, so there may not be a need to change those forms, since it is the OPO who needs to document different times for different organs. A member said their transplant program forms refer to “donor cross clamp time.” The member said that the OPTN can document the historic definition of cross clamp time and provide for new data collection moving forward but it is a large effort. The Chair suggested documenting flush times by organ (not just thoracic vs. abdominal) to account for future evolution in recovery techniques. A member recommended making it clear in public comment that in the future, the flush times that would be collected would need to be

compared to historic documentation of cross clamp time. Contractor staff noted that introduces some downstream impacts in terms of TransNet labeling and triggers for various notifications.

The Workgroup reviewed the flush time data fields that were approved by the OPTN Board of Directors in 2022 and are pending implementation. The Chair said that the abdominal aorta flush time should capture the abdominal organs and the thoracic aorta flush time should capture the heart and lungs. However, implementation of the flush time fields will not address the challenges with how cross clamp time is currently used across the OPTN Computer System. The Chair suggested changing the flush time definitions to be more organ-specific. The Workgroup discussed that any changes to the data fields pending implementation would need to be approved by the OPTN Board of Directors.

#### *SBP50*

The Workgroup supported creating policy requiring OPOs to enter vitals every minute from withdrawal of life support to declaration of death and eliminating the data definitions for warm ischemic time and agonal phase. The vitals include heart rate, systolic blood pressure, diastolic blood pressure, mean arterial pressure, and oxygen saturation. A member noted this would be more like a real-time flow sheet in the OPTN Donor Data and Matching System. The Chair noted that the information may not appear in the system every minute but the data could be uploaded so that it is ready for review. Contractor staff noted that a flow sheet for the DCD withdrawal process is being added to the system as part of the package that is pending implementation, except for respiratory rate, so respiratory rate could be added to that data collection as part of this project.

#### Next Steps:

Contractor staff will assess the impacts of moving away from cross clamp time and reporting organ flush times instead.

## **2. Continue Machine Perfusion Data Discussion**

### Presentation Summary

The Workgroup reviewed the proposed machine perfusion data collection.

Proposed fields:

- Normothermic vs. hypothermic
- Machine type
- On machine, date/time
- Off machine, date/time
- Who requested the use of machine perfusion
- Who performed the machine perfusion
- Lactate levels

Future collection: PO<sub>2</sub>, PCO<sub>2</sub>, pH, temp, bile, arterial flow, portal flow, IVC flow, arterial pressure, IVC pressure

Do not collect: Glucose clearance (OrganOx specific), machine serial number

### Summary of Discussion:

<b>No decisions were made regarding this agenda item.</b>
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The Chair suggested that there may be requests to include some of the data fields listed as “future collection” but recommended keeping the approach relatively simple at this stage. A member recommended starting to collect the “future collection” fields now since they are all a part of the process. The Chair noted that part of the challenge is collecting the right data points for each machine but suggested putting the fields out for public comment and requesting feedback.

Next Steps:

- The Workgroup will continue to review Machine Perfusion data elements.

**Upcoming Meeting**

- May 7, 2025

## **Attendance**

- **Workgroup Members**
  - PJ Geraghty
  - Anne Krueger
  - Stephen Gray
  - Chrstine Maxmeister
  - Anja DiCesaro
  - Kim Baltierra
- **SRTR Staff**
  - Katie Siegert
  - Jon Miller
- **UNOS Staff**
  - Robert Hunter
  - Kaitlin Swanner
  - Susan Tlusty
  - Ross Walton
  - Alina Martinez
  - Joel Newman
  - Sharon Shepherd
  - Kevin Daub