

**NIDDK Liver Transplantation Database  
MANUAL OF OPERATIONS (MOOP) DEFINITION**

**FORM: DR (DONOR LIVER RECOVERY)**

**Page 1 of 4**

Purpose: To document the hepatectomy times, the flush and medications used, and the events (such as hypoxemia, acidosis, cardiac arrest) that may have occurred at the time of the donor liver recovery.

Person(s) Responsible: Technician or other member of the organ procurement team, LTD Clinical Coordinator.

Source(s) of Information: Donor chart, documents from the organ procurement team.

General Instructions: This form should be completed by a member of the organ procurement team at the time of the harvest, or by the LTD Clinical Coordinator using information provided by the procurement team. In the situation of an outside procurement (ie. other than an LTD Center procurement team), they should be instructed to supply the information requested by the LTD. In any case, if the donor chart is available, it should be used as the source of information to check for accuracy of the DR form. Any discrepancies should be resolved with the procurement technician.

**NIDDK Liver Transplantation Database  
MANUAL OF OPERATIONS (MOOP) DEFINITION**

**FORM: DR (DONOR LIVER RECOVERY)**

**Page 2 of 4**

**RECIPIENT ID, TRANSPLANT NO.**

The Recipient ID and Transplant Number will be recorded/assigned by the Clinical Center Coordinator before entry. The transplant number should be the 1st, 2nd or 3rd, etc., transplant for this recipient.

Completing Form: Record the Recipient ID and Transplant Number.

**I.1 HEPATECTOMY START TIME (INCISION)**

Date and time of the start of the hepatectomy procedure, according to the time zone of the LTD Clinical Center in military time. Note that the date may be different than that given for the cross-clamping at the time of the hepatectomy.

Completing Form: Record the date as month, day, year; record the time as hours and minutes using military time.

**I.2 HEPATECTOMY CROSS-CLAMP/FLUSH TIME**

Date and time of the aortic cross-clamping and flushing of the liver with preservation solution according to the time zone of the LTD Clinical Center in military time. Note that the date may be different than that given for the hepatectomy start time.

Completing Form: Record the date as month, day, year; record the time as hours and minutes using military time.

**II.1 FLUSH TYPES**

This includes flush solutions and additives used for portal vein, aorta and organ preservation. Preservation solution is the type of solution used to bathe the liver from the time of removal from the donor and the liver is placed in ice until the time it is placed into the recipient. The commonly used solutions are the UW solution (Viaspan) and Lactated Ringers.

Completing Form: For the UW solution and Lactated Ringers, check whether used as portal vein flush, aorta flush or preservation solution, and record the total volume (cc) used. If not used, enter 0. If a solution other than the UW solution or Lactated Ringers is used, specify the solution and check the category(ies) for which it was used. Record the total volume in cc's. If more than one "other" is used, record the remainder under "COMMENTS" (Section VIII) starting with the section no. and item name (e.g. "II.1.4 Other flush types...").

**II.2 WERE MEDICATIONS ADDED TO FLUSH?**

**NIDDK Liver Transplantation Database  
MANUAL OF OPERATIONS (MOOP) DEFINITION**

**FORM: DR (DONOR LIVER RECOVERY)**

**Page 3 of 4**

This includes medications added to the portal vein and/or aorta flush. Commonly used medications include: 1) Calciparine, 2) D50, 3) Heparin, 4) Mannitol, 5) Solumedrol (dexamethasone/decadron), 6) insulin, 7) penicillin.

Completing Form: Check whether medications were added to flush. If "no", proceed to section III. If "yes", proceed to the boxed medications list. For each medication listed, check whether it was added to portal vein flush or aorta flush. If not used, leave columns blank. Heparin requires a total dosage specification in UNITS. For medications other than those listed, specify type under "Other", one medication/line, and check the appropriate column(s). If more than two "other" medications are used, record the remainder under "COMMENTS" (Section VIII) as instructed.

**III.1 BLOOD PRESSURE AT TIME OF INCISION**

Blood pressure, systolic and diastolic (if available), taken at the time of incision for hepatectomy.

Completing Form: Occasionally only a systolic blood pressure will be recorded. Indicate diastolic as "unk" if that is the case. If systolic is "palpable", record 0 for systolic and "unk" for diastolic.

**III.2 BLOOD PRESSURE AT CROSS CLAMP**

Blood pressure, systolic and diastolic (if available), taken at the time just prior to aortic cross-clamping.

Completing Form: Occasionally only a systolic blood pressure will be recorded. Indicate diastolic as "unk" if that is the case. If systolic is "palpable", record 0 for systolic and "unk" for diastolic.

**III.3 LOWEST BLOOD PRESSURE (SUSTAINED FOR AT LEAST 30 MINUTES)**

This is the lowest blood pressure, systolic and diastolic (if available), from the time of incision to the time of aortic cross-clamping sustained for at least 30 minutes.

Completing Form: Occasionally only a systolic blood pressure will be recorded. Indicate diastolic as "unk" if that is the case. If systolic is "palpable", record 0 for systolic and "unk" for diastolic.

**IV.1-3 EVENTS**

This section is divided into events occurring at the start of harvest and during harvest. Start of harvest is defined as the time of incision. During harvest is defined as incision time through cross-clamp time.

**NIDDK Liver Transplantation Database  
MANUAL OF OPERATIONS (MOOP) DEFINITION**

**FORM: DR (DONOR LIVER RECOVERY)**

**Page 4 of 4**

- 1) Hypoxemia: PaO<sub>2</sub> < 60 mmHg on FiO<sub>2</sub> > 70%
- 2) Acidosis: pH < 7.3
- 3) Cardiac arrest during liver recovery

Completing Form: Check whether any of the three listed events occurred at the specified times. If it is unknown, check "unk".

**V. WHOLE BLOOD AND/OR PACKED RED BLOOD CELLS GIVEN?**

Refers to whole blood or packed red blood cells given at any time during the harvest surgery.

Completing Form: Check whether whole blood and/or packed red blood cells were given during the harvest surgery. If unknown, check "unk".

**VI. MEDICATIONS DURING SURGERY**

Include boluses given as well as continuous infusions.

Completing Form: Record the medication(s) given and provide the code as listed in the Medications List (Appendix I). If a medication is not coded on the list, check with your PI regarding its indication, and whether it should be documented. If so, inform the Coordinating Center as soon as possible to assign a code for this new medication.

**VII. OTHER ORGANS RECOVERED**

Frequently multiple organs are recovered from a single donor. Any portion of the organ (e.g. cornea vs. whole eye) may be recovered.

Completing Form: Check the appropriate items. If "Other" is checked, specify the organ(s) in the space(s) provided, one organ/line. If more than two "other" are specified, record the remainder under "COMMENTS" (Section VIII) as instructed.

**VIII. COMMENTS**

Comments should be confined to events that took place during the surgical procedure only and which have not been mentioned elsewhere in this form.

Completing Form: Check whether there are any comments to be made. If "yes" write in the pertinent comments. If a comment pertains to a specific item in the form, precede the comment with the section and item numbers (e.g. "VII.10 Other organs recovered . . .").