

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

**FORM: IS (INTRA-OPERATIVE SURGEON ASSESSMENT)**

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Purpose: To document the surgeon's assessment of the donor liver, the type of surgical procedure(s) performed, and the condition of the patient at the end of surgery.

Person(s) Responsible: Surgeon (or most senior surgeon) who performed the surgery, LTD Clinical Coordinator.

Source(s) of Information: Surgeon performing the surgery.

General Instructions: This form should be completed by the surgeon as soon as possible after the end of surgery. The completed form should be checked by the LTD Clinical Coordinator for completeness.

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**TRANSPLANT NUMBER**

This is the transplant number for the current liver transplantation (OLTX) for this patient.

Completing Form: Record whether this is the 1st, 2nd, 3rd, . . . OLTX for this patient.

**DATE OF TRANSPLANT**

The date of closure for the operation (end of case as recorded by the anesthesiologist) should be recorded, and not the date of initial incision (which may occur the day before).

Completing Form: Record the date of closure for the transplant as month, day, year.

**I. SURGEON ASSESSMENT OF DONOR LIVER**

Time frame for assessment of the donor liver is after biliary reconstruction.

Completing Form:

1. Assessment of liver: check "yes" or "no" for each of the following categories: 1) Consistency/texture: normal; 2) Perfusion/color: well perfused; 3) Injury/trauma present.
2. Overall quality of liver: check "good", "fair" or "poor" to describe the overall quality of the liver.
3. Bile production: check "good", "fair" or "poor" to describe the bile production.

**II. TYPE OF ARTERIAL ANASTOMOSIS (FINAL)**

Final connection of donor artery to recipient artery (i.e. if the procedure was redone, document the final connection only).

Completing Form: Check the appropriate category to indicate the donor vessel and recipient vessel used for arterial anastomosis. If vessel is not listed, check "other" and specify in the space provided. If an iliac interposition graft was used, check "yes". Otherwise, check "no". If anastomosis was redone, check "yes" and check whether the reason was "poor blood flow" or "other". Specify reason if "other" is checked. If anastomosis was not redone, check "no".

**III. TYPE OF PORTAL VEIN RECONSTRUCTION (FINAL)**

Final connection of donor portal vein to a recipient vein (i.e. if the procedure was redone, document the final connection only).

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Completing Form: Check the appropriate category to indicate to which recipient vessel the donor portal vein was anastomosed. If the vessel is not listed, check "other" and specify in the space provided. If reconstruction was redone, check "yes" and specify reason; otherwise check "no".

**IV. BILIARY ANASTOMOSIS PERFORMED**

Connection of donor bile duct to recipient, most commonly 1) choledochocholedochostomy with T-tube (surgical anastomosis of common bile duct with an inclusion of a T tube); 2) choledochojejunostomy (surgical anastomosis of common bile duct to jejunum).

Completing Form: Check which type of biliary anastomosis was performed. If neither of the choices apply, check "other" and specify in the space provided.

**V. INTRAOPERATIVE SURGICAL PROCEDURES**

Other procedures that may have been performed during the operation include: 1) bowel perforation/resection; 2) splenectomy; 3) ligate splenic artery; 4) graft size reduction; 5) umbilical hernia repair; 6) ligation of prior portosystemic shunt, 7) Others.

Completing Form: Check whether any other intraoperative surgical procedures were performed. If "yes", check all that apply. If a graft reduction was performed, check to indicate which segments were transplanted (refer to diagram on opposite page of form). If the procedure is not listed, check "other" and specify in the space provided. If there were more than two "other", record the remainder under "COMMENTS" (Section X), starting with the section no. and item name (e.g. V.9 "Other intraoperative surgical procedures . . .").

**VI. PREVIOUS ABDOMINAL/SHUNT SURGERIES**

Abdominal/shunt surgeries of interest include: 1) biliary enterostomy, 2) portosystemic shunts, 3) peritoneal (LeVeen, Denver) shunts, 4) proctocolectomy, 5) cholecystectomy, 6) previous ulcer surgery, 7) splenectomy, 8) gynecological surgery, 9) others such as colectomy and open biopsy.

Completing Form: Check whether the patient had any previous abdominal or shunt procedure(s). If "yes", check all that apply. If a portosystemic shunt had been done, indicate if it was taken down during the surgery. If previous ulcer surgery had been done, specify the type of surgery in the space provided. If the procedure is not listed, check "other" and specify. If there were more than two "other" previous surgeries, record the remainder under "COMMENTS" (Section X), starting with the section and item number (e.g. "VI.11 Previous abdominal surgery . . .").

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**VII. MISCELLANEOUS INFORMATION ITEMS**

These include: 1) ascites at time of initial opening; 2) other organ transplantations performed at the time of the liver transplantation.

Completing Form:

1. Check whether the patient had ascites at the time of initial opening. If "yes" specify the quantity removed in "liters".
2. Check whether other organ transplantations were performed at this time. If "yes", check all the categories that apply. If the organ is not listed, check "other" and specify in the space provided.

**VIII. PATIENT'S CONDITION AT THE END OF SURGERY**

Classification of the patient's condition at the end of surgery:

1. Did not survive surgery.
2. Unstable blood pressure requiring vasopressors.
3. Stable blood pressure, urine output  $\leq$  1 ml/kg/hr.
4. Stable blood pressure, urine output  $>$  1 ml/kg/hr.

Completing Form: Check the category that best describes the patient's condition at the conclusion of the surgery.

**IX. SURGEON OF RECORD**

The ID of the most senior surgeon should be used.

Completing Form: Record the LTD center prefix and first 3 letters of the surgeon's last name.

**X. COMMENTS**

Comments should be limited to information not already included in this form that the surgeon considers to be of relevance to the transplanted liver.

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, precede the comment with the section and item number (e.g. "VII.2.2.7 Other transplant done . . .").