

**ROTATION SPECIFIC OBJECTIVES**

*Division of Gastroenterology, Department of Medicine  
University of Toronto*

## **LIVER TRANSPLANTATION UNIVERSITY HEALTH NETWORK**

### **OVERVIEW**

Orthotopic liver transplantation (OLT) is the treatment of choice for end-stages of acute and chronic liver diseases of various etiologies. General and community gastroenterologists play a key role in the selection of potential candidates and their timely referral for evaluation of liver transplantation. Given the increasing demand for and the rising number of long-term survivors after liver transplantation, the (community-based) Gastroenterologist will be increasingly confronted with management issues in liver transplant candidates and liver transplant recipients. This rotation aims at providing you with the basic knowledge/skills to master these challenges. This rotation is usually assigned to PGY-5 Residents following completion of at least 2 months of Hepatology.

### **GENERAL GOALS**

- To expose the GI Resident to all aspects of liver transplantation
- To enable the GI Resident to appropriately contribute as treating gastroenterologist hepatologist to the selection of patients for liver transplantation, and to their pre- and long-term postoperative care

### **CANMEDS-BASED OBJECTIVES**

*At the end of the rotation, the GI Resident will be able to:*

#### **MEDICAL EXPERT**

- Demonstrate sufficient basic (immunology, pharmacology, cellular biology, molecular biology/genetics) knowledge relevant to transplantation
- Describe the indications and contraindications for liver transplantation
- Demonstrate knowledge of the outcomes of patients post liver transplantation, including rejection, infection, metabolic abnormalities, renal dysfunction and malignancy
- Demonstrate basic science knowledge about the mechanisms of rejection
- Demonstrate basic knowledge about the principles of Immunosuppression and the mechanism(s) of action/side effects of the major immunosuppressive agents, including calcineurin inhibitors, corticosteroids, azathioprine, Mycophenolate, Sirolimus etc.
- Demonstrate sufficient clinical knowledge relevant to transplantation to manage common problems occurring in pre- and post-liver transplant patients (e.g. SBP, HRS, acute cellular rejection, recurrent HCV)

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- Demonstrate sufficient clinical knowledge to manage pre- and post-liver transplant patients under emergency conditions (e.g. fulminant hepatic failure, septic complications)
- Demonstrate clinical knowledge sufficient to aid with decision making regarding transplant candidacy and acceptance of candidates on the liver transplant waiting list
- Provide an appropriate diagnosis (after consideration of differential diagnosis) and investigation and treatment plan
- Demonstrate an understanding of the principles of common imaging studies in pre- and post-liver transplant patients (ultrasound, Doppler ultrasound, CT, MRI, MRCP)
- Perform upper endoscopic procedures in pre- and post-transplant patients appropriate for a gastroenterologist (i.e. variceal banding)
- Perform non-endoscopic procedures appropriate for a gastroenterologist (liver biopsy)
- Perform non-endoscopic procedures appropriate for an internist (paracentesis)
- Obtain informed consent for procedures (endoscopy, liver biopsy) and treatment (blood product transfusion)

**COMMUNICATOR**

- Communicate the results of investigations and a clear management plan to patients and their families
- Communicate with and counsel patients and their families effectively regarding the patient's status and issues surrounding transplantation

**COLLABORATOR**

- Participate effectively and appropriately in an interprofessional healthcare team with a focus on Hepatobiliary surgeons, charge nurse, pharmacists in the context of the transplant patient.
- Work effectively with other health care team members (nursing, allied health members and Hepatobiliary surgeons) to best manage the patient's care.

**LEADER**

- Manage time appropriately i.e. in-patient consultation service, endoscopy service, outpatient clinic, academic endeavors.

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**HEALTH ADVOCATE**

- Demonstrates and understanding of determinants of health in pre- and post-transplant patients (risk factors for underlying liver disease, such as HBV, HCV, but also risk factors for long-term post-transplant outcomes, including rejection, infection, malignancy, cardiovascular dysfunction, renal dysfunction and recurrent disease)
- Understand and address patient-centered limitations to management appropriately (e.g. psychosocial, financial, linguistic, cultural factors etc.)  
Demonstrate an understanding of the principles of the ethical issues related to transplantation, including an understanding of advocacy for patients to be moved up the list

**SCHOLAR**

- Demonstrate the ability to evaluate the medical literature and apply it critically to transplant patients.
- Attend and contributes to rounds (transplant rounds, Hepatobiliary rounds)
- Demonstrate effective teaching of other allied health professionals – nursing staff, dieticians, pharmacists.

**PROFESSIONAL**

- Show honesty, integrity, commitment, compassion and respect when working with patients, families, colleagues and allied health professionals
- Recognize and discuss ethical issues surrounding consent, urgency / utility, organ allocation and other health care resource utilization / costs of liver transplantation
- Demonstrate an understanding of privacy issues surrounding live organ donation