Division of Gastroenterology, Department of Medicine University of Toronto

HEPATOLOGY - INPATIENT - UNIVERSITY HEALTH NETWORK

The Hepatology Inpatient Consult service at TGH/ MSH and PMH provides a unique experience for GI trainees at UHN. TGH is home to the Toronto Centre for Liver Disease, the largest ambulatory care clinic and research unit devoted to liver disease in Canada. TGH is also home to the largest liver transplant program in Canada. TGH also has dedicated and talented expertise in liver-related imaging, liver histopathology, liver cancer care, interventional radiology and hepatobiliary surgery. TGH is the major referral resource for liver disease for the entire province. The service often sees interesting and complex consultations in liver disease from other hospitals, allowing trainees the opportunity to become medical experts in rare liver conditions. Throughout the rotation, trainees will have exposure to patients with complications of cirrhosis (variceal bleed, ascites, encephalopathy, hepatocellular carcinoma, acute kidney injury/ hepatorenal syndrome), severe chronic hepatitis and acute liver failure, liver disease in cancer patients, transplant and immunosuppressed patients. Trainees will become familiar with the role of liver transplantation and become familiar with palliation for those with end stage liver disease. Trainees will also learn to optimize hospital minimize repeat hospitalizations through collaboration with staff in the Urgent Liver Clinic, Medical Day Unit, Endoscopy Unit by providing urgent consultation, therapeutic paracentesis / thoracentesis, and/ or endoscopy as appropriate. An advanced nurse practitioner may also be able to see some patients post discharge.

COMPETENCY-BASED OBJECTIVES

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

MEDICAL EXPERT

- Formulate an appropriate patient assessment with demonstration of proficiency in performing:
 - a focused liver history
 - a targeted physical examination relevant to liver disease
 - interpretation of liver enzyme and function tests
 - Interpretation of basic viral hepatitis serology
 - interpretation of basic liver imaging studies
 - review of liver histology
 - o focused differential diagnosis in liver disease
- Manage inpatient emergencies of the cirrhotic patient:
 - ascites
 - spontaneous bacterial peritonitis
 - hepatorenal syndrome

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- hepatic encephalopathy
- variceal bleeding/ banding
- · Manage outpatient liver disease
- Workup of elevated liver enzymes NYD
- Medical care of compensated cirrhosis
- Follow-up of patients with chronic HBV infection (on/off therapy)
- Follow-up of patients with chronic HCV infection (on/off therapy)
- Screening for HCC
- Screening for gastroesophageal varices
- Initiate appropriate liver transplant workup
- Effectively interpret imaging studies (US, CT, MRI)
- Demonstrate knowledge of the role of liver biopsy and key histopathological findings
- Incorporate basic science knowledge about immunology, virology, anatomy into clinical care
- Demonstrate an understanding of the role of gastroscopy in liver disease
- Demonstrate an understanding of the principles of conscious sedation in the context of liver disease
- Recognize relevant pathology
- · Manage varices that have not bled
- Demonstrate an understanding of emergency endoscopy management of active bleeding
- Obtains informed consent for procedures (gastroscopy, biopsy, paracentesis)

COMMUNICATOR

- Effectively discuss the natural history and management of life threatening conditions
- Effectively communicate with patients and families:
 - Diagnosis and natural history of diagnosis
 - Cirrhosis
 - Acute liver failure
 - Acute hepatitis
 - Hepatocellular carcinoma
 - Management options (immediate)
 - Management of ascites (diet, diuretics, TIPS)
 - Management of encephalopathy (lactulose, rifaximin)
 - Management options (long term)
 - Need for regular follow-up, bloodwork and imaging studies
 - Potential need for long-term or short-term antiviral therapy
 - Indications for liver transplantation
 - Ablative therapies for HCC
 - Role of palliative care

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COLLABORATOR

- Effectively help transition of care between referring physicians and other consultants
- Effectively coordinate care with other members of the healthcare team (Radiology, Pathology, Surgery, Internal Medicine, Liver Transplant, Endoscopy Unit, Medical Day Unit)
- Work well with other team members and housestaff in sharing responsibilities including educational rounds, consult service and clinic, and patient hand-overs

LEADER

- Facilitate effective/ efficient patient triage between emergency room, inpatient ward and ambulatory care settings to optimize patient care
- Demonstrate an understanding of evidence-based, cost-appropriate investigations and care of patients with complex liver disease including hepatocellular carcinoma, end-stage liver disease, liver transplantation
- Demonstrate the ability to supervise junior trainees on the hepatology consultation service, including appropriate delegation of the clinical workload with team members
- Demonstrate the ability to effectively manage time with regard to clinical responsibilities
- Demonstrate an understanding of the utility of tests ordered and how they may or may not affect management; appreciation of costs of tests ordered
- Manage time and coordinate care with other residents and fellows appropriately regarding coverage of the in-patient consultation service, out-patient clinics, endoscopy service
- Identify areas of healthcare where quality might be improved

HEALTH ADVOCATE

- Advocate to prevent hospital re-admission by identifying and addressing and proposing measures to manage ascites, hepatic encephalopathy and prevent infection, variceal bleeds after discharge from hospital
- Help patients plan for end stage liver disease by advocating liver transplantation where appropriate versus plans for palliation, including discussions of code status, power of attorney, etc.
- Become familiar with drug cost as a barrier to care. Be aware of different mechanisms to obtain medications for patients post discharge, such as the Ontario Drug Benefit Program

SCHOLAR

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- Demonstrate the ability to critically appraise the literature relevant to management of patients with decompensated liver disease
- Demonstrate awareness for recent GI/ liver literature and or research findings
- Demonstrate effective presentation skills rounds, journal club rounds
- Identify areas of healthcare where the quality of care might be improved based on evidence
- Effectively teach other allied health professionals nursing, pharmacists and peer and junior housestaff

PROFESSIONAL

- Demonstrate respect for patients in a multicultural and multi-ethnic setting, including those who acquired disease via high risk practices (i.e. substance abuse, alcohol), at all times
- Demonstrate respect for other members of the team: shows up on time for teaching rounds, clinics, and notify team early of potential absenteeism
- Complete all documentation/ dictations and electronic medical records in a timely manner
- Demonstrate reliability and a professional work attitude
- Demonstrate an understanding of the ethical relationship with pharmaceutical industry representatives, as defined by the University of Toronto, RCPSC and CMA