McGill University Health Centre
Fellowship Program
Hepatology and Liver Transplantation

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1. Training Objectives
The 12 month fellowship program in hepatology and liver transplantation is designed to offer specialized training in all aspects of transplant and nontransplant hepatology with a view to preparing candidates for a career in Academic Hepatology.

The focus is clinical, but all candidates are expected to complete at least one research project during the course of their fellowship year. Furthermore, candidates will be expected to take on an increasing role in the education of peers with regards to the field of hepatology and liver transplantation, in preparation for a career in Academic medicine.

The following clinical components are included (all durations approximate and subject to change)
   a) Hepatology / Liver Transplant Consultation Service (4 periods)
   b) Hepatology Outpatient clinics (4 periods)
   c) Hepatobiliary neoplasia clinic (1 period)
   d) Elective (1 period)
   e) Liver Pathology (1 period)
   f) Liver Radiology (1 period)
   g) Research (1 periods)
   h) Vacation (4 weeks – flexible)
   i) Longitudinal clinic – transplant and general hepatology (2 half-days per week).

During the course of the 12 month fellowship, candidates will attend at least one international liver meeting (generally AASLD).

2. Training Objectives
The advanced fellowship in Hepatology and Liver Transplantation is intended to provide training over and above that received in a core Gastroenterology fellowship, with the specific goal of preparing the candidate for the care of liver disease and liver transplant
patients in a Tertiary (or above) care setting. The expectation is that the candidate will meet the requirements of the United Network for Organ Sharing, and those of the American Board of Internal Medicine. The candidate’s training will allow them to be eligible for the Certificate of Added Qualification examinations in Transplant Hepatology. (Journal of Hepatology, Volume 44, Issue 4, Pages 655 – 657)

1. MEDICAL EXPERT/CLINICAL DECISION MAKER
The Hepatology trainee should demonstrate:

1.1 Diagnostic and therapeutic skills for effective care of patients with hepatobiliary disorders

1.2 Knowledge of:

- Physiology of the liver and biliary system.
- Detailed pathophysiology of the liver and biliary systems.
- Liver pathology, including histological interpretation and specific pathological techniques.
- Epidemiology and natural history of common and uncommon liver diseases and complications.

1.3 The following clinical skills:

- Participation in the peri-operative and post-operative care of at least 30 transplant recipients. The trainee should be involved in all aspects of the recipients’ care from the time of liver transplantation and should continue to follow them longitudinally during his/her training.
- Performance of diagnostic and therapeutic procedures, in particular, a minimum of 30 percutaneous liver biopsies and 20 abdominal paracenteses. The candidates should observe a minimum of three liver transplantations and three organ procurements.
- Diagnosis and management skills for effective care of patients with the following conditions of the liver and biliary tract:
  i) Acute hepatitis: Viral, drug, toxic.
  ii) Fulminant hepatic failure.
  iii) Chronic hepatitis and cirrhosis.
  iv) Complications of liver disease: ascites, hepatic encephalopathy, spontaneous bacterial peritonitis, hepatorenal syndrome.
  v) Prevention and treatment of bleeding varices and gastropathy.
  vi) Diagnosis and treatment of hepatocellular carcinoma.
  vii) Diagnosis and management of tumours of the biliary system including cholangiocarcinoma
  viii) Chronic liver diseases such as; alcohol, Wilson’s disease, primary biliary cirrhosis, autoimmune hepatitis, hemochromatosis, 1-antitrypsin deficiency.
  ix) Gallstone disease, including the appropriate use of medical and surgical therapies.
  x) Hepatobiliary disorders associated with pregnancy.
xi) Preoperative evaluation and postoperative management of patients with known disease of the liver or with evidence of hepatobiliary dysfunction.

xii) Pediatric and congenital hepatobiliary disorders.

xiii) Pre-, peri-, and post-operative care of the liver transplant recipient, including management of ensuing complications.

xiv) Assessment and selection of individuals for liver transplantation.

xv) Appropriate selection of individuals for partial liver resection.

- Use and side effects of antiviral and immunosuppressive agents in the treatment of liver disease.

- Management of the nutritional problems associated with chronic liver disease.

- The ability to select the following diagnostic and therapeutic techniques based on indications, contraindications, limitations, interpretations and complications.

  i) Percutaneous liver biopsies and cytological aspiration of the liver.
  ii) Vascular radiologic procedures including hepatic angiography, and hepatic hemodynamic measurements.
  iii) Nuclear medicine procedures including biliary scanning.
  iv) Imaging procedures of the liver and biliary tract including ultrasound, MRI/MRA/MRCP and CT and PET scan.
  v) Diagnostic and therapeutic upper gastrointestinal endoscopic procedures, including sclerotherapy and variceal banding.
  vi) ERCP, including papillotomy, biliary stent placement, and other interventional biliary modalities (e.g. specialized biliary dilation procedures).
  vii) Transvenous liver biopsy.
  viii) Laparoscopy and laparoscopic cholecystectomy.

2. COMMUNICATOR
The Hepatology trainee should be able to:

- Recognize the need for patients and their families to understand the nature of their disease, goals and possible hepatobiliary investigations and treatment.

- Educate the patient in the relevant area of disease prevention, transmission, detection, progression, and therapy to promote liver health.

- Communicate and cooperate with allied health care personnel involved in the care of individual patients afflicted with hepatobiliary diseases.

3. COLLABORATOR
The Hepatology trainee should be able to:
- Identify the role and expertise of all members of interdisciplinary teams involved in the management of hepatobiliary disease and liver transplantation.
- Actively contribute to the plan of management proposed by the interdisciplinary team.

4. **MANAGER**
The Hepatology trainee should be able to:
- Work effectively and efficiently in the daily care of hospitalized and ambulatory patients with liver disease.
- Utilize time and resources effectively to provide optimum care to patients.

5. **HEALTH ADVOCATE**
The Hepatology trainee should be able to:
- Identify important determinants of health in liver diseases that affect patients. These include socio-economic status, education, social support systems, lifestyle, psychosocial and biologic factors.
- Understand and identify the current public policies of liver disease that effect health.
- Identify in hepatology practice the population at risk and provide the available knowledge about prevention. This involves knowing practice guidelines put forth by various provincial, national and international societies.
- Understand and identify subjects for prevention of hepatitis, screening for liver cancer, and genetic testing for hemochromatosis.

6. **SCHOLAR**
The Hepatology trainee should be able to:
- Recognize the importance of self-assessment in medical education in hepatology.
- Appraise and evaluate the medical literature in the field of Hepatology as it applies to clinical practice.
- Recognize his/her gaps in clinical knowledge around a particular clinical question and be able to fill this gap.
- Participate in the education of peers with regards to liver disease and developments in liver transplantation.

7. **PROFESSIONAL**
The Hepatology trainee should be able to:
- Offer the highest quality of care with integrity, honesty and compassion.
- Practice medicine ethically consistent with obligations of a physician.
- Exhibit appropriate personal and interpersonal professional behaviours.

a) **Teaching**
   Tues: 12:00 – 13:00 Medical Grand Rounds
Wed: 17:00 - 18:00 GI Grand Rounds
Thurs: 12:00-13:00 GI weekly rounds
Friday: 8:00-10:00 Liver pathology /Tumour Board
Friday: 12:00-13:30 Hepatology Rounds
*The Hepatology Trainee is expected to attend all liver related Rounds.

b) Clinical (confirm clinic times with individual staff members)
   Dr M. Deschenes
   Dr T. Chen
   Dr P. Ghali
   Dr N. Hilzenrat
   Dr G. Sebnastiani
   Dr. P. Wong

Useful Contacts / Information:
Hospital address:
1001 blvd Decarie
Montreal, QC H4A 3J1
Canada
Main Hospital # (RVH and MGH): 514-934-1934
Main Hospital # (JGH): 514-340-8222
Locating RVH 53333
   JGH 8232
GI Secretaries
RVH 31616
MGH 43906
In-patient Transplant ward (RVH):
   R3 35003
ICU 35886/35887 (spectralink phone)

Reading Lists:
Main Reference books: Zakim and Boyer – Hepatology or Schiff – Diseases of the Liver
or Oxford Textbook of Hepatology Sherlock and Dooley: Diseases of the Liver and
biliary System
Primer on Transplantation
CASL, AASLD and EASL practice Guidelines