

**Name of Institution:** Division of Gastroenterology, McGill University Health Center

**Location:** Montreal General Hospital site, D7-102.

**Type of Fellowship:** Endoscopic Ultrasonography (EUS)

**Program Information:** See appended description

**EUS Fellowship Program Director:** Kevin Waschke

**Teaching Faculty:** Kevin Waschke, Josee Parent

**Academic Facilities:**

The MGH site has a fully equipped EUS unit, with both radial and linear EUS probes and an Aloka processor. The unit utilizes endoscopic reporting software that allows report creation, collection of records via a database and capture of both endoscopic image and video. A variety of books, video cassettes and DVDs are available for perusal during the fellowship.

**Fellow Duties and Responsibilities:**

The EUS fellows' main responsibility is to see the patients on the EUS service, which is mainly comprised of out patients coming for scheduled appointments for EUS examinations. Depending on the nature of endoscopy requests, the EUS fellow will be expected to occasionally see patients who are in the emergency room, admitted to the ward, or in clinics that may require consultation prior to EUS. The majority of time is spent performing consultation and endoscopy under the supervision of the teaching faculty.

The fellow will be expected to assist in the supervision and teaching of gastroenterology residents who may attend the EUS cases as part of elective rotations or who attend during their core gastroenterology residency. The nature of these responsibilities will be graded depending on the individual resident's needs in keeping with the EUS fellow's abilities and comfort level and will be done in a manner so as not to impede the EUS fellow's acquisition of competence in EUS.

The EUS fellow is expected to attend and actively participate in all academic activities involving residents, for example MUHC medical and GI rounds, lunch

time informal seminars, MUHC hepatobiliary rounds, morbidity and mortality rounds. The EUS fellow will specifically be responsible to prepare cases for hepatobiliary rounds and will be expected to present on at least one occasion at MUHC GI rounds.

The support staff available to the fellow will be the GI residency program coordinator.

With respect to meetings to be attended by the fellow, the main meeting in EUS is held biannually in rotating sites. There are numerous gastroenterology meetings held annually which are less EUS specific. There is no specific funding available to the fellow from the program for attending meetings, and the specific meetings to be attended will depend on the fellow's profile (i.e. whether a fellow is presenting research for example).

Fellows are highly encouraged to participate in the design, implementation and eventual publication of a research project during their EUS year, however this is not a mandatory part of the fellowship. This is typically done under the supervision of one of the teaching faculty, but projects can be done with supervision of attending staff within the gastroenterology program or therapeutic endoscopy fellowship in certain instances. Normally this project is done within the time frame of the fellowship, as there is protected reading/teaching/research time built into each week, however additional time can be arranged depending on the nature of the research project and the fellow's progression with respect to the training objectives after discussion with the program director.

### **Curriculum**

The expected caseload of the EUS fellow may vary from year to year, but based on past experience can range from 800-1000 cases per year. The exposure of the fellow will be a combination of hands-on endoscopy and observation, depending on the number of fellows on the rotation. Typically one or two fellows are chosen per year, and the caseload is split evenly.

Regular reading materials are not provided to the resident, however an extensive reference list and collection of textbooks, videos and DVDs are available for discussion around cases.

Conference weekly schedules are available for consultation upon the Division of Gastroenterology website.

**McGill University Health Centre  
Fellowship Program  
Endoscopic Ultrasonography**

1. Training Outline
2. Objectives
3. Weekly Schedules
4. Recommended reading

Prepared by Kevin Waschke

## 1. Training Outline

The 12 month fellowship program in Endoscopic Ultrasonography (EUS) is designed to offer specialized training in all aspects of EUS with a view to preparing candidates for an academic career.

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 EUS, in preparation for a career in Academic medicine.

The following clinical components are included (all durations approximate and subject to change)

- a) Endoscopic Ultrasonography
- b) Radiation Oncology (esophageal cancer and rectal cancer staging and treatment)
- c) Research (1-3 periods)

During the course of the 12 month fellowship, candidates are free to attend at least one international EUS or advanced endoscopy meeting (e.g. international EUS meeting held biannually, or ASGE meetings (DDW)).

## 2. Objectives

The advanced fellowship in Endoscopic Ultrasonography is intended to provide specialized training not provided in a core Gastroenterology fellowship, with the specific goal of preparing the candidate for the practice in EUS in a Tertiary (or above) care setting.

## **1. MEDICAL EXPERT/CLINICAL DECISION MAKER**

The EUS trainee should demonstrate:

- 1.1 Diagnostic and therapeutic skills for effective care of patients with pancreatobiliary disorders
- 1.2 Knowledge of:
  - Anatomy of the mediastinum, pancreatobiliary system, abdominal vasculature, digestive tract, lymphatic system of the thorax and abdomen.
  - Principles of ultrasonography.
  - Epidemiology and natural history of common and uncommon diseases that affect the gastrointestinal tract and their complications, with a particular emphasis on:
    - Staging and diagnosis of malignancy
      - Lung cancer
      - Lymphoma
      - Pancreatic cancer
      - Cholangiocarcinoma
      - Ampullary cancer
      - Gallbladder cancer
      - Esophageal cancer
      - Gastric cancer
      - Anorectal cancer
      - Neuroendocrine tumors
    - Subepithelial digestive tract lesions
      - GISTs
      - Duplication cysts
      - Schwannoma
      - Varices
    - Pancreatobiliary disease
      - Gallstones and their related conditions
      - Pancreatic cysts
      - Acute pancreatitis
      - Chronic pancreatitis
    - Anal sphincter abnormalities
- 1.3 The following clinical skills:
  - Participation in the pre-diagnostic and post-diagnostic management of patients with newly diagnosed malignancies. During the course of the care of these patients the trainee should demonstrate an ability to evaluate the risks, benefits and alternatives of the various treatment options on a case-by-case

basis. In addition, the trainee should be able to discuss diagnostic and therapeutic options with the patient and his or her family. The trainee should be able to give bad news with respect, dignity and care for the patient.

- Performance of diagnostic and therapeutic procedures, in particular, a minimum of 400 diagnostic EUS and 50 EUS guided fine needle aspirations (the exact amount will depend on the case volume which may vary from year to year and will be based on the trainees progression of skill level).
- Diagnosis and management skills for effective care of patients with the following conditions::
  - o Staging and diagnosis of malignancy
    - Lung cancer
    - Lymphoma
    - Pancreatic cancer
    - Cholangiocarcinoma
    - Ampullary cancer
    - Gallbladder cancer
    - Esophageal cancer
    - Gastric cancer
    - Anorectal cancer
    - Neuroendocrine tumors
  - o Subepithelial digestive tract lesions
    - GISTs
    - Duplication cysts
    - Schwannoma
    - Varices
  - o Pancreatobiliary disease
    - Gallstone disease – both medical and surgical management
    - Pancreatic cysts
    - Acute pancreatitis
    - Chronic pancreatitis
  - o Anal sphincter abnormalities
- The ability to select the following diagnostic and therapeutic techniques based on indications, contraindications, limitations, interpretations and complications.
- Fine needle aspiration (for cytological analysis) of lesions in the lymphatic system, mediastinum, pancreas, biliary tract, esophagus, stomach, duodenum, anorectum.
- Nuclear medicine procedures including biliary scintigraphy.

- Imaging procedures including ultrasound, MRI/MRCP and CT and PET scan.
- Diagnostic and therapeutic upper gastrointestinal endoscopic procedures, including dilation of intestinal strictures, and variceal banding.
- ERCP, including papillotomy, biliary stent placement, and other interventional biliary modalities.
  - i) Enteral stent placement.
  - ii) Laparoscopy and laproscopic cholecystectomy.
  - iii) Cyst and pseudocyst drainage.

## **2. COMMUNICATOR**

The EUS 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.
- Communicate and cooperate with allied health care personnel involved in the care of individual patients afflicted with diseases requiring investigation by EUS.

## **3. COLLABORATOR**

The EUS trainee should be able to:

- Identify the role and expertise of all members of interdisciplinary teams involved in the management of diseases requiring EUS imaging.
- Actively contribute to the plan of management proposed by the interdisciplinary team.

## **4.- MANAGER**

The EUS trainee should be able to:

- Work effectively and efficiently in the daily care of hospitalized and ambulatory patients requiring investigation by EUS.
- Utilize time and resources effectively to provide optimum care to patients.

## **5. HEALTH ADVOCATE**

The EUS trainee should be able to:

- Identify important determinants of health in diseases that affect patients undergoing EUS. These include socio-economic status, education, social support systems, lifestyle, psychosocial and biologic factors.
- Understand and identify the current public policies of screening and staging of malignancies that affect health.
- Identify in EUS practice the population at risk (e.g. for colon cancer, gastric cancer, esophageal cancer, chronic pancreatitis, etc) 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 screening for hereditary malignancies.

## **6. SCHOLAR**

The EUS trainee should be able to:

- Recognize the importance of self-directed learning, intrinsic motivation and reflection in medical education in EUS.
- Appraise and evaluate the medical literature in the field of EUS 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 EUS and developments in endoscopy.

## **7. PROFESSIONAL**

The EUS 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.

### **Weekly Schedule (as of September 2008)**

#### **a) Teaching**

Tues: 12:00 – 13:00	Medical Grand Rounds	Osler amphitheatre
1730 – 1900 (monthly)	Hepatobiliary rounds	D5-928 MGH
Wed: 16:00 -17:00	GI Trainee Rounds	JGH Block Amphitheatre
17:00 -18:00	GI Grand Rounds	JGH Block Amphitheatre
Thurs: 13:00 -1400	MGH GI “brown bag rounds”	MGH GI conference

\*The EUS Trainee is expected to attend all GI related Rounds.

#### **b) Clinical (confirm with individual staff members as subject to change)**

Dr K. Waschke

Endoscopy clinics

Monday 0800 –1700

Friday 0800-1700

Montreal General Hospital D7

Montreal General Hospital D7

Dr J. Parent

Endoscopy clinics

Tuesday 0800-1700 Montreal General Hospital D7

Wednesday 0800-1700 Montreal General Hospital D7

c) Protected research / academic time / flex time for specific interests (to be determined in conjunction with program director)

Thursday 0800 - 1700

Recommended reading :

Main Reference book:

Hawes and Fockens – Endosonography (2006)

Supplemental reading:

Gress and Bhattacharya – Endoscopic Ultrasonography (2001)

Sivak - Gastrointestinal Endoscopy, Volume 1 and 2 (2002)

Cotton and Williams - Practical Gastrointestinal Endoscopy

**Journals:**

Gastrointestinal endoscopy

Endoscopy

American Journal of Gastroenterology

Gastroenterology

Clinical Gastroenterology and Hepatology