Lahey Clinic Internal Medicine Residency Program: Curriculum for Gastroenterology

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Overview

The Department of Gastroenterology is a busy inpatient and outpatient practice that sees a full spectrum of diseases of the luminal gut, pancreas and liver. There are subspecialties within the division that further specialize in inflammatory bowel disease, biliary tract disease, malnutrition and liver disease. In addition, the department is active in performing endoscopic procedures. These include diagnostic and therapeutic upper endoscopy and colonoscopy, therapeutic endoscopic retrograde cholangiopancreatography (ERCP), luminal stenting and endoscopic ultrasound.

Residents and medical students can participate in a gastroenterology elective in the ambulatory clinic or inpatient service. Lahey Clinic residents may spend time with various attending physicians in the ambulatory clinic seeing patients. Most rotations are on the inpatient service and span from one week to four weeks. While on the inpatient rotation, residents will perform gastroenterology consultations by reviewing the history, physical exam, lab and radiologic data of patients. These patient evaluations are presented to the gastroenterology attending physician of the week. Then the patients are followed longitudinally by the residents, who are urged to participate in any endoscopic evaluation of the patients and in ongoing patient management.

There is no call or weekend responsibility with the elective rotation. Residents will participate in daily gastroenterology work rounds with the gastroenterology fellows and attending physician. Additional conference attendance is encouraged and is outlined below. The attending physician evaluates residents on a weekly basis and all evaluations are compiled and submitted to the website, Myevaluations.com. There is also an opportunity to discuss evaluations with the attending physician.

Conferences

Endoscopy Conference

(Twice a month on Wednesdays, 12:30 to 1:30 pm)

This interactive, fast-paced conference discusses endoscopic techniques by reviewing photographs, videotapes and radiographs of recent cases. Fellows and attendings informally share interesting endoscopic findings, radiological correlations and management decisions. Pertinent literature pertaining to cases is reviewed.

Summer Core Lecture Series

(Mondays and Thursdays, 12:30 to 1:30 pm)

Attending physicians cover pertinent and practical diagnostic and management issues in hepatology and gastroenterology. This lecture series is geared to the needs of the fellows as they transition from internists to gastroenterologists.

Pathophysiology Lecture Series

(Once a month on Mondays, 12:30 to 1:30 pm)

Fellows will be responsible for reviewing the pertinent literature on selected topics in gastrointestinal (GI) and liver pathophysiology. Emphasis on the mechanisms of disease provides a strong foundation for later clinical experience.

Combined Gastroenterology, Radiology and Surgery Conference

(Thursday mornings, 7 to 8 am)

This weekly conference combines the expertise of GI radiology, invasive imaging, general and colorectal surgery, as well as gastroenterology in reviewing and discussing the best and most challenging cases seen throughout Lahey Clinic in the preceding weeks. Fellows present cases from all of the subspecialties with the emphasis on radiologic correlation of surgical and endoscopic findings, case management and clinical decision-making.

Inter-Hospital Gastroenterology Rounds

(Last Tuesday of the month, 7:30 to 9 pm)

This rotating monthly conference brings Boston's major teaching hospitals together to present and discuss fascinating cases. Lahey Clinic sponsors the event one month out of the year, with the fellows presenting and briefly discussing the most unique and interesting cases seen in the preceding year.

Teaching Goals

The following curriculum is an organ-specific outline, which the resident may use to organize his or her study of a particular disease entity seen on the rotation.

Diseases of the Esophagus

- 1) To gain an understanding of the pathophysiology of gastroesophageal reflux disease (GERD)
- 2) To become familiar with the myriad presenting symptoms of GERD
- 3) To develop an understanding of the various diagnostic modalities used in the diagnosis of GERD
- 4) To understand the stepwise approach for the management of GERD, from lifestyle modification and over-the-counter antacids to laparoscopic fundoplication
- 5) To gain an understanding of the pathophysiology of swallowing disorders
- 6) To develop an understanding of the various diagnostic modalities used in the diagnosis of dysphagia

Diseases of the Stomach and Duodenum

- 1) To understand the pathogenesis of peptic ulcer disease caused by Helicobacter pylori infection and nonsteroidal anti-inflammatory drugs (NSAIDs)
- 2) To become familiar with the presenting signs and symptoms of peptic ulcer disease (bleeding, perforation, obstruction)
- 3) To refine knowledge and grasp the importance of general medical resuscitation in the management of upper GI bleeding
- 4) To understand the role of upper endoscopy for diagnosis, prognosis and therapy in the management of upper GI bleeding
- 5) To understand the pathogenesis, diagnosis and therapy for celiac disease, which has a high prevalence in Lahey Clinic population

Diseases of the Pancreas

- 1) To familiarize oneself with the models of pathogenesis of acute and chronic pancreatitis
- 2) To grasp the differential diagnosis of acute pancreatitis
- 3) To refine knowledge of the management of acute pancreatitis, particularly in regards to distinguishing between interstitial and necrotizing pancreatitis, and to understand the role of computed tomography (CT) scan in making this distinction and guiding treatment
- 4) To familiarize oneself with the presenting signs and symptoms of adenocarcinoma of the pancreas
- 5) To develop an understanding of the theories of the pathogenesis of chronic pancreatitis
- 6) To become familiar with the medical and surgical management of chronic pancreatitis
- 7) To understand the roles of the various modalities in the diagnosis and staging of adenocarcinoma of the pancreas
- 8) To become familiar with endoscopic palliation in pancreatic adenocarcinoma

Diseases of the Liver

- 1) To become more comfortable with the differential diagnosis of elevated liver function tests (LFTs)
- 2) To improve proficiency in the evaluation of the patient with elevated LFTs
- 3) To become familiar with the diagnosis, staging and therapy of chronic hepatitis C infection (HCV)
- 4) To understand the various modalities used in the diagnosis of cirrhosis
- 5) To become more comfortable in the management of cirrhosis and its complications (bleeding, infection and encephalopathy)
- 6) To become familiar with the pathogenesis of alcoholic liver diseases and understand the disease spectrum of alcoholic liver disease (fatty liver, alcoholic hepatitis, cirrhosis)

Diseases of the Biliary Tree

- 1) To become familiar with the pathophysiology and presenting signs and symptoms of biliary colic from cholelithiasis and choledocholithiasis
- 2) To understand the difference in liver chemistries between uncomplicated biliary colic, acute cholecystitis and choledocholithiasis
- 3) To understand the role of endoscopic retrograde cholangio-pancreatography (ERCP) in the management of choledocholithiasis

- 4) To become familiar with the role of ERCP in the management of gallstone pancreatitis
- 5) To understand the role of cholecystectomy in the management of these disorders
- 6) To familiarize oneself with the epidemiology and pathogenesis of cholangiocarcinoma
- 7) To understand the presenting signs and symptoms of cholangiocarcinoma
- 8) To understand the roles of surgery, endoscopy and interventional radiology in the management of cholangiocarcinoma

Diseases of the Colon

- 1) To develop some familiarity with colorectal carcinoma pathogenesis and epidemiology
- To understand the importance of colorectal cancer screening and the various screening strategies that is utilized by primary care physicians and gastroenterologists
- 3) To understand clearly the utility of colonoscopy in colorectal polyp detection, removal and surveillance
- 4) To understand the pathogenesis of diverticular disease (diverticulitis and bleeding diverticula)
- 5) To become familiar with the broad spectrum of clinical presentations of symptomatic diverticular disease, from pain to diverticular abscess with sepsis
- 6) To understand the fundamental differences in histopathology, clinical presentation and treatment between ulcerative colitis and Crohn's disease
- 7) To become familiar with the medical and surgical management of ulcerative colitis and Crohn's disease, including the various roles of topical vs. systemic therapy, 5-ASA drugs, and immunosuppression
- 8) To refine one's knowledge of the differential diagnosis of lower GI bleeding, and to review the importance of general resuscitation in lower GI bleeding
- 9) To understand the importance of a multidisciplinary approach to the management of lower GI bleeding, grasping the roles of gastroenterology/endoscopy, radiology/angiography and surgery

Basic Principles of Endoscopy

- 1) To acquire an overview of the practice of endoscopy
- 2) To understand the most common indication for upper endoscopy and colonoscopy
- 3) To understand the diagnostic and therapeutic role of endoscopy in GI bleeding
- 4) To become familiar with contraindications and complications related to endoscopic procedures

Principle Educational Goals Based on the ACGME General Competencies

In the tables below, the principle educational goals of the Gastroenterology curriculum are listed for each of the six ACGME competencies:

- 1) Patient Care
- 2) Medical Knowledge
- 3) Practice-Based Learning and Improvement
- 4) Interpersonal and Communication Skills

- 5) Professionalism
- 6) Systems-Based Practice

1) Patient Care

Objective	Learning Environment	Evaluation Method
Perform a comprehensive	Consult rounds	Global assessment
history and physical with		Small group participation
particular attention to the		with GI fellows
GI tract		
Formulate a management	Consult rounds	Global assessment
plan		Small group participation
Clearly document patient	Consult rounds	Global assessment
management in the		
medical record		

2) Medical Knowledge

Objective	Learning Environment	Evaluation Method
Recognize GI symptom	Consult rounds	Global assessment
history	Assigned readings	Small group participation
Use diagnostics	Consult rounds	Global assessment
appropriately		Small group participation
Recognize major GI	Consult rounds	Global assessment
diseases		Small group participation
Use diagnostic and	Consult rounds	Global assessment
therapeutic endoscopy		Small group participation
appropriately		
Recognize the unstable	Consult rounds	Global assessment
patient and appropriate		Small group participation
triage		

3) Practice-based Learning and Improvement

Objective	Learning Environment	Evaluation Method
Be able to perform a	Consult rounds	Global assessment
literature search to answer		Small group participation
clinical questions		
Be able to interpret	Consult rounds	Global assessment
laboratory and radiologic		Small group participation
data		
Facilitate team member	Consult rounds	Global assessment
education		Small group participation

4) Interpersonal and Communication Skills

Objective	Learning Environment	Evaluation Method
Communicate a plan of	Consult rounds	Global assessment

action and follow-up		Small group participation
effectively to patients and		
other team members		
Communicate potential	Consult rounds	Global assessment
risks of endoscopic		
therapy		
Relate endoscopic findings	Consult rounds	Global assessment
to other team members		Small group participation

5) Professionalism

Objective	Learning Environment	Evaluation Method
Interact with patients, colleagues and hospital staff in a respectful manner	Consult rounds	Global assessment Small group participation
Maintain patient confidentiality and HIPAA guidelines	Consult rounds	Global assessment Small group participation

6) Systems-Based Practice

Objective	Learning Environment	Evaluation Method
Mobilize floor or ICU for	Consult rounds	Global assessment
appropriate management		
of hemodyamically		
unstable patients		
Work with fellows and staff	Consult rounds	Global assessment
as part of an		Small group participation
interdisciplinary team		

Gastroenterology Curriculum Checklist

	Setting: I (inpatient) O (outpatient)	Date
Acute abdomen		
Acute appendicitis		
Ascites		
Diarrhea		
Acute		
Chronic		
Gastroesophageal reflux disease (GERD)		
Uncomplicated GERD		
Esophageal stricture		
Barrett's esophagus		

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Gastrointestinal bleeding		
Lower		
Occult		
Upper		
Inflammatory bowel disease		
Intestinal disorders		
Diverticulitis		
Hemorrhoids		
Irritable bowel syndrome		
Diverticular abscess		
Malabsorption		
Mesenteric vascular		
disease		
Malnutrition		
Motility disorders		
Esophagus		
Colon		
Gastroparesis		
Small intestine		
Neoplasm Cancer (including		
henatohiliary)		
hepatobiliary) Colonic polyps		
Peptic ulcer disease		
Bleeding ulcer		
Helicobacter gastritis		
Uncomplicated ulcer		
Perforation, obstruction		
Peritoneal disease		
Biliary tract disease		
Acute cholecystitis		
Biliary obstruction		
Cholelithiasis		
Cholangitis		
Cholestatic liver disease		
Primary biliary cirrhosis		
Primary sclerosing		
cholangitis		
Cirrhosis (including		
complications)		
Hepatitis		
Drug-induced		
Viral		
Infiltrative liver diseases		
Other acquired		
Inherited		
Metabolic		
Pancreatitis		
Acute		
Chronic		
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