

Rotation:
Gastroenterology Subspecialty Selective

Goals:

Provide medical residents and students with knowledge necessary to evaluate and treat common GI complaints that primary care physicians are likely to face in practice these include dysphagia, heartburn, nausea and vomiting, abdominal pain, diarrhea, constipation, gastrointestinal bleeding, jaundice and ascites.

Describe how GI **supspecialist approach** common and complex GI disorders and how they use available diagnostic tools to manage and treat the disorders.

Objectives:

By the end of the Gastroenterology subspecialty selective, all residents are expected to expand and cultivate skills and knowledge learned during previous training and to achieve the following objectives based on the six general competencies. The resident should exhibit an increasing level of responsibility and independency as he or she progresses throughout the year.

Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Patient Care	SPECIALTY SPECIFIC OBJECTIVES			
	Provide competent patient care - data acquisition, diagnosis, and management - for patient with GI complaints.	Clinical Teaching	Focused Observation	Daily
		Conferences and Didactic Sessions	ABIM Global Assessment Form	Monthly/Semi annual
		Self directed learning	AGA In-service Exam	Annual
	Recognize, evaluate, and treat the most common digestive disease emergencies.	Clinical Teaching	Focused Observation	Daily
		Conferences and Didactic Sessions	ABIM Global Assessment Form	Monthly/Semi annual
		Self directed learning	AGA In-service Exam	Annual
	Evaluate and treat common GI complaints that primary care physicians are likely to face in practice including: <ul style="list-style-type: none"> • Dysphagia • Heartburn • Nausea and vomiting • Abdominal pain • Diarrhea • Constipation • Gastrointestinal bleeding • Jaundice 	Clinical Teaching	Focused Observation	Daily
		Conferences and Didactic Sessions	ABIM Global Assessment Form	Monthly/Semi annual
Self directed learning		AGA In-service Exam	Annual	
		Procedure Log	Semi-annual	
		Endoscopy attending assessment	Monthly	

	<ul style="list-style-type: none"> • Ascites 		GI Lab staff assessment Complication rates from CORI	Monthly
	Obtain a complete medical history and perform a comprehensive physical examination.	Clinical Teaching	Focused Observation ABIM Global Assessment Form	Daily Monthly/Semi annual
	Evaluate, diagnose and manage the following gastrointestinal disorders including but not limited to: <ul style="list-style-type: none"> • Geriatric gastroenterology • GERD • Advanced liver disease • Cancer • Acute gastrointestinal bleeding from the upper and lower GI tract • Caustic ingestion and foreign body extraction • Acute abdomen • Intestinal obstruction • Severe diarrhea including acute presentations of IBD • Intestinal ischemia • Acute pancreatitis • Biliary tract obstruction and cholangitis • Acute hepatic failure • Motility disorders of the gastrointestinal tract. • Other gastrointestinal diseases/disorders outlined in the general objectives 	Clinical Teaching Conferences and Didactic Sessions Self directed learning	Focused Observation ABIM Global Assessment Form AGA In-service Exam Procedure Log Endoscopy attending assessment GI Lab staff assessment Complication rates from CORI	Daily Monthly/Semi annual Annual Semi-annual Monthly Monthly
	Interpret the following basic imaging modalities in the diagnosis and therapy of digestive diseases including but not limited to: <ul style="list-style-type: none"> • Upper and lower Barium contrast x-rays, recognizing ulcers, filling defects, masses, strictures, etc. • Ultrasonography • Computed tomography • Magnetic resonance imaging • Vascular, pancreatic, and biliary radiology • Invasive therapeutic techniques including transhepatic cholangiography and drainage, transhepatic liver biopsy, percutaneous gastrostomy placement, vascular embolization, and placement of internal proto-systemic shunts (TIPS) • Nuclear imaging and isotopically based tests including 	Clinical Teaching Conferences and Didactic Sessions Self directed learning	Focused Observation ABIM Global Assessment Form AGA In-service Exam Procedure Log Endoscopy attending assessment GI Lab staff assessment Complication rates from CORI	Daily Monthly/Semi annual Annual Semi-annual Monthly Monthly

	<p>breath analysis and cyanocobalamin absorption</p> <ul style="list-style-type: none"> • Plain X-rays of the abdomen • RUQ ultrasound, recognizing common ultrasound abnormalities such as ascites, gallstones, intrahepatic biliary tract dilatation, and liver and abdominal abscesses. • Cholangiograms and pancreatograms and recognize stones, strictures, neoplasms, and the signs of chronic pancreatitis. 			
	<p>Formulate a prioritized differential diagnosis and develop a logical diagnostic and management plan.</p>	<p>Clinical Teaching</p> <p>Conferences and Didactic Sessions</p> <p>Self directed learning</p>	<p>Focused Observation</p> <p>ABIM Global Assessment Form</p> <p>AGA In-service Exam</p>	<p>Daily</p> <p>Monthly/Semi annual</p> <p>Annual</p>
	<p>Educate and counsel patients about his/her gastrointestinal illness.</p>	<p>Clinical Teaching</p> <p>Conferences and Didactic Sessions</p> <p>Self directed learning</p>	<p>Focused Observation</p> <p>ABIM Global Assessment Form</p> <p>AGA In-service Exam</p>	<p>Daily</p> <p>Monthly/Semi annual</p> <p>Annual</p>
	<p>Perform the following gastrointestinal procedures under direct supervision, including but not limited to:</p> <ul style="list-style-type: none"> • Flexible sigmoidoscopies to a depth of 60+ cm recognizing common colorectal pathology (hemorrhoids, polyps, and cancer). • Biopsies, manipulating forceps • Polypectomy, using both biopsy and snare techniques • Sclerotherapy and banding with variceal hemorrhages • Injection therapy, heater probe, and electrocautery with bleeding lesions of the upper and lower gastrointestinal tract • Percutaneous endoscopic gastrostomy • Placement of feeding tubes • Placement of Sengstaken-Blakemore or Minnesota tubes for tamponade of bleeding varices • Percutaneous liver biopsy, identify suitable biopsy site by percussion/palpation or ultrasound • Paracentesis, including the ability to diagnose ascites using percussion (shifting dullness) and ultrasound • Capsule Endoscopy • Basic endoscopy including: intubating the esophagus 	<p>Clinical Teaching</p> <p>Conferences and Didactic Sessions</p> <p>Self directed learning</p>	<p>Focused Observation</p> <p>ABIM Global Assessment Form</p> <p>AGA In-service Exam</p> <p>Procedure Log</p> <p>Endoscopy attending assessment</p> <p>GI Lab staff assessment</p> <p>Complication rates from CORI</p>	<p>Daily</p> <p>Monthly/Semi annual</p> <p>Annual</p> <p>Semi-annual</p> <p>Monthly</p> <p>Monthly</p>

	<p>under direct visualization, understanding normal and post-surgical anatomy, and reaching the proximal small bowel during an upper endoscopy and the cecum during a colonoscopy in almost all patients.</p> <ul style="list-style-type: none"> • pH studies and basic esophageal and anorectal motility studies. 			
	Generate the nutritional assessment and planning for a gastrointestinal patient.	<p>Clinical Teaching</p> <p>Conferences and Didactic Sessions</p> <p>Self directed learning</p>	<p>Focused Observation</p> <p>ABIM Global Assessment Form</p> <p>AGA In-service Exam</p>	<p>Daily</p> <p>Monthly/Semi annual</p> <p>Annual</p>
	Recognize common disease processes such as ileus, bowel obstruction, volvulus, free air in the peritoneal cavity or mediastinum, bowel wall edema (thumbprinting), fecal impaction, calcifications, etc.	<p>Clinical Teaching</p> <p>Conferences and Didactic Sessions</p> <p>Self directed learning</p>	<p>Focused Observation</p> <p>ABIM Global Assessment Form</p> <p>AGA In-service Exam</p>	<p>Daily</p> <p>Monthly/Semi annual</p> <p>Annual</p>
	Recognize commonly seen lesions on abdominal and pelvic computed tomography, such as pancreatic tumors, pancreatic inflammation and its sequelae, in addition to those conditions listed above for ultrasonography.	<p>Clinical Teaching</p> <p>Conferences and Didactic Sessions</p> <p>Self directed learning</p>	<p>Focused Observation</p> <p>ABIM Global Assessment Form</p> <p>AGA In-service Exam</p>	<p>Daily</p> <p>Monthly/Semi annual</p> <p>Annual</p>
Medical Knowledge	SPECIALTY SPECIFIC OBJECTIVES			
	Develop the basic medical knowledge needed to evaluate and manage patients with a broad mix of GI diseases and complaints.	<p>Clinical Teaching</p> <p>Conferences and Didactic Sessions</p> <p>Self directed learning</p>	<p>Focused Observation</p> <p>ABIM Global Assessment Form</p> <p>AGA In-service Exam</p>	<p>Daily</p> <p>Monthly/Semi annual</p> <p>Annual</p>
	Develop the basic technical skills leading to competency in the performance of all endoscopic procedures required for ABIM certification in the subspecialty of gastroenterology.	<p>Clinical Teaching</p> <p>Conferences and Didactic Sessions</p> <p>Self directed learning</p>	<p>Focused Observation</p> <p>ABIM Global Assessment Form</p> <p>AGA In-service Exam</p>	<p>Daily</p> <p>Monthly/Semi annual</p> <p>Annual</p>
	Develop an understanding of relevant laboratory studies, imaging, and endoscopic findings.	Clinical Teaching	Focused Observation	Daily

		Conferences and Didactic Sessions	ABIM Global Assessment Form	Monthly/Semi annual
		Self directed learning	AGA In-service Exam	Annual
Develop a basic understanding of the clinical manifestations, natural history, pathophysiology, and treatment of common gastrointestinal and hepatic diseases including: <ul style="list-style-type: none"> • Disorders of the esophagus including esophagitis, esophageal spasm, and achalasia • Acid-peptic disease of the stomach • Intestinal motility disorders • Malabsorption and maldigestion including mucosal diseases and pancreatic insufficiency • Infectious diseases of viral, bacterial, mycotic, or parasitic etiology including HIV and its gastrointestinal manifestations • Immunologically-based diseases • Etiologies of hepatitis and cholestasis • Pathophysiology and treatment of portal hypertension • Premalignant and malignant processes • Crohn’s disease, ulcerative colitis and proctitis 	Clinical Teaching	Focused Observation	Daily	
	Conferences and Didactic Sessions	ABIM Global Assessment Form	Monthly/Semi annual	
	Self directed learning	AGA In-service Exam	Annual	
Demonstrate knowledge of gastrointestinal and hepatic physiology including: <ul style="list-style-type: none"> • Anatomy and blood supply of the gastrointestinal tract • Peristaltic activity of the esophagus, stomach, small intestine, and colon • Role of the stomach, pancreas, and bile with respect to digestion • Mechanisms and sites of nutrient and electrolyte absorption by the small intestine and colon • Regulation of gastric, pancreatic, biliary, and intestinal secretion • The role of the liver in the: synthesis and release of essential metabolic factors such as albumin and prothrombin into the blood, metabolism and detoxification of a number of substances, and synthesis and secretion of bile 	Clinical Teaching	Focused Observation	Daily	
	Conferences and Didactic Sessions	ABIM Global Assessment Form	Monthly/Semi annual	
	Self directed learning	AGA In-service Exam	Annual	
Recognize common inflammatory and neoplastic condition involving the gastrointestinal tract and liver.	Clinical Teaching	Focused Observation	Daily	
	Conferences and Didactic Sessions	ABIM Global Assessment Form	Monthly/Semi annual	

		Self directed learning	AGA In-service Exam	Annual
Develop the knowledge of pathologic features that: separate a Barrett's from non-Barrett's epithelium; differentiate various intestinal diseases that can lead to malabsorption; recognize histologic features of Crohn's disease and ulcerative colitis; and understand the histologic features of hepatitis, cholestasis, and cirrhosis of the liver.	Clinical Teaching	Focused Observation	Daily	
	Conferences and Didactic Sessions	ABIM Global Assessment Form	Monthly/Semi annual	
	Self directed learning	AGA In-service Exam	Annual	
Develop an understanding of the indications for endoscopic procedures and liver biopsies and be able to estimate the risk and benefits of interventions performed for diagnostic and therapeutic reasons.	Clinical Teaching	Focused Observation	Daily	
	Conferences and Didactic Sessions	ABIM Global Assessment Form	Monthly/Semi annual	
	Self directed learning	AGA In-service Exam	Annual	
Describe the accepted complication rate for each procedure.	Clinical Teaching	Focused Observation	Daily	
	Conferences and Didactic Sessions	ABIM Global Assessment Form	Monthly/Semi annual	
	Self directed learning	AGA In-service Exam	Annual	
Distinguish between the pharmacology of medications used for conscious sedation, contraindications to their use, side effects and the treatment of side-effects.	Clinical Teaching	Focused Observation	Daily	
	Conferences and Didactic Sessions	ABIM Global Assessment Form	Monthly/Semi annual	
	Self directed learning	AGA In-service Exam	Annual	
Demonstrate basic knowledge of age-related dosing adjustments and the interactions of sedative medications.	Clinical Teaching	Focused Observation	Daily	
	Conferences and Didactic Sessions	ABIM Global Assessment Form	Monthly/Semi annual	
	Self directed learning	AGA In-service Exam	Annual	
Demonstrate a familiarity with the endoscopic appearance of inflammatory, vascular, and neoplastic processes and know the characteristics that help to separate benign from malignant disease.	Clinical Teaching	Focused Observation	Daily	
	Conferences and Didactic Sessions	ABIM Global Assessment Form	Monthly/Semi annual	
	Self directed	AGA In-service Exam	Annual	

		learning		
	Demonstrate a basic understanding of neuromuscular physiology of the gastrointestinal tract.	Clinical Teaching Conferences and Didactic Sessions Self directed learning	Focused Observation ABIM Global Assessment Form AGA In-service Exam	Daily Monthly/Semi annual Annual
	Recognize characteristic manometric findings in patients with common motility disorders (e.g. achalasia, esophageal spasm, reflux disease, Hirshsprungs Disease)	Clinical Teaching Conferences and Didactic Sessions Self directed learning	Focused Observation ABIM Global Assessment Form AGA In-service Exam	Daily Monthly/Semi annual Annual
	Develop the basic understanding of the approach to diagnosing colonic inertia and pelvic floor dysfunction and be familiar with the usefulness and limitations of diagnostic studies designed to study constipation and incontinence.	Clinical Teaching Conferences and Didactic Sessions Self directed learning	Focused Observation ABIM Global Assessment Form AGA In-service Exam	Daily Monthly/Semi annual Annual
	Demonstrate an understanding of the significance of nutritional needs in gastrointestinal patients including: <ul style="list-style-type: none"> • enteral access and enteral preparations indications and contraindications of parenteral nutrition • formulations and complications of total parenteral nutrition • vitamins, mineral, and fiber • overfeeding syndrome and secondary organ failure • medical consequences of obesity • medical and surgical treatment of obesity 	Clinical Teaching Conferences and Didactic Sessions Self directed learning	Focused Observation ABIM Global Assessment Form AGA In-service Exam	Daily Monthly/Semi annual Annual
	Demonstrate the understanding of the indications and contraindications of capsule endoscopy	Clinical Teaching Conferences and Didactic Sessions Self directed learning	Focused Observation ABIM Global Assessment Form AGA In-service Exam	Daily Monthly/Semi annual Annual
Practice-Based Learning and Improvement	SPECIALTY SPECIFIC OBJECTIVES			
	See General Internal Medicine Objectives			
Interpersonal and	SPECIALTY SPECIFIC OBJECTIVES			

Communication Skills	See General Internal Medicine Objectives			
Professionalism	SPECIALTY SPECIFIC OBJECTIVES			
	See General Internal Medicine Objectives			
Systems-Based Practice	SPECIALTY SPECIFIC OBJECTIVES			
	See General Internal Medicine Objectives			

Learning Venues:

A. In-patient GI Consultation Services will form the anchor of the rotation. Residents will be assigned to either the Med GI consultation service or the VA GI consultation service. Each will be staffed by a GI attending and a GI fellow. Residents will obtain histories and perform physical examinations on patients with GI disorders and present them daily on attending rounds. Learning will be primarily case-based and patient centered.

B. Out-patient GI and Hepatology Clinics 2-3 half-days per week will provide residents with exposure to patients with GI problems in the ambulatory setting. Emphasis will be on patients presenting with new complaints so that initial evaluation, diagnostic work-up, and management can be stressed. Exposure to patients with chronic GI complaints who are returning for follow-up will also be provided. Learning in this venue will also be primarily case-based and patient centered.

C. GI Endoscopy Labs at The Med and the VA will provide residents with exposure to the technical aspects of gastroenterology. Residents are required to observe all endoscopic procedures performed on in-patients that they have seen in consultation. This allows for clinical correlation between patient symptoms and actual GI pathology. Residents are also encouraged to observe as many different endoscopic procedures they can to appreciate the advantages and disadvantages, risks and benefits of routine endoscopy. For residents interested in learning how to perform flexible sigmoidoscopy, hands-on training will be provided (this is optional). Documentation of a minimum of 25 supervised procedures and approval by a staff endoscopist following observation of a performed procedure is required to obtain a letter certifying competence.

D. Reading Materials will be provided at the beginning of each rotation. The syllabus provided will span the broad spectrum of GI and liver disorders and will cover topics that may not present themselves in the in-patient or outpatient teaching venues. It will be comprised mostly of NEJM review articles, aimed at the internist rather than the subspecialist. The resident is expected to read each of these articles during the month rotation (~1 article per day). Exam questions will come from information in these articles.

E. Didactic Teaching sessions will be used to supplement the educational experience. These include GI and Hepatology journal clubs, a pathophysiology conference, pathology conferences, and a multi-disciplinary GI-surgery-radiology conference. Residents are required to attend these conferences. In addition, specific teaching rounds by GI fellows and/or attendings on the in-patient consultation services will be offered as time permits.

These will focus on topics not well covered in the in-patient and outpatient venues or may serve as venue for reviewing information covered in the reading materials.

Competency Evaluation:

ABIM Global Assessment Form - All six competencies must be rated as satisfactory or superior. Written examination at end of rotation - to assess medical knowledge and patient care, 80% must be correct. Procedure log for assessment of flexible sigmoidoscopies.

Outcomes Assessment:

The educational success of our elective in gastroenterology will be based on two criteria:

(1) GI subsections scores on the in-service examination of all residents who have successfully complete the elective and (2) GI subsections scores on the ABIM certifying examination in internal medicine taken by medical graduates. Our goal is all residents scoring at the 50th percentile or higher.