# Department of Medicine

**Internal Medicine Residency Training Program**

**Gastroenterology Rotation: Curriculum and Goals and Objectives**

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**Introduction**

The Inpatient Gastroenterology Consult Rotation is designed to provide exposure to a wide array of common and rare GI disease cases. Residents and interns evaluate new consults and discuss them with the Consult Attending and the fellow during rounds. Extensive experience is garnered managing a variety of acute medical problems on medical, surgical and maternity floors as well as in Intensive Care Unit. In addition, the Inpatient GI Consult experience offers the opportunity to acquire the skills necessary to design effective and efficient diagnostic and treatment plans; and work collaboratively with other healthcare personnel.

# Educational Setting/Clinical Expectations

* The Inpatient GI Consult Team typically includes a GI Attending, a fellow a first-, second- or third-year medical resident, a medical student.
* The consult volume is variable, but averages three new consults daily, in addition to the follow-up patients. The GI Fellow will assign new consults to the Residents and/or Medical Students. The Resident is responsible for the initial evaluation of the patient by gathering a detailed history, performing a thorough physical exam pertinent to the case, reviewing laboratory and radiologic tests; and most importantly, synthesizing this information into a differential diagnosis and plan of care. The resident formally presents the case to the entire consult team. The case is discussed and initial thoughts are generated. The entire team then visits the patients and pertinent aspects of the history and physical are reviewed and confirmed. The entire team then discusses the case again and formal recommendations are generated which are relayed to the team requesting the consult by the resident. The Resident is also expected to round on all patients initially evaluated by him/her and requiring follow up.

The teaching rounds occur daily, typically in the early afternoon. The time of rounds will be set up in advance by the Attending. In addition to new case discussion as above, all follow-up cases will be reviewed and discussed as well. Review of pertinent articles in the literature will be strongly emphasized and directed by the Attending and fellow. The Resident will usually be asked to perform a short didactic presentation involving a specific subject to answer an interesting question arising during rounds.

* The Ambulatory GI rotation occurs in different attendings depending on where their clinic is located. It provides the resident the opportunity to evaluate patients in the outpatient setting along with the Attending. The resident will be able to obtain pertinent history, examine the patient, review the pertinent laboratory and radiologic tests, and discuss a differential diagnosis and plan of care with the Attending.

**Educational Objectives**

The principle teaching methods used during this rotation are attending teaching rounds, bedside clinical rounds, review of laboratory and radiographic diagnostic studies, as well as discussion of relevant topics and articles from the literature.

Emphasis is placed on the development of bedside clinical skills in order to gather the essential information pertaining to the presentation and physical findings, on understanding and interpretation of a wide array of diagnostic information, and most importantly on thought process essential to build an appropriate differential diagnosis and treatment plan.

In this context, the major educational objectives of the rotation will include:

1. Understand the etiology and pathophysiology of GERD and its management
2. Understand the diagnostic criteria and management for Barretts esophagus
3. Review the various esophageal motility disorders, their diagnostic criteria and the management
4. Be able to recall the various medications that can cause medication induced esophagitis
5. Be able to recall the various mechanical esophageal disorders including webs, stricture and diverticula, their management and follow up
6. Be well versed in the diagnostic and management for varices
7. Be able to differentiate and suspect the various infectious esophagitis etiologies (including candida herpes simplex and CMV)
8. Other esophageal disorders such as eosinophilic esophagitis and their clinical criterion
9. Diagnosis, management and follow up for H.Pylori
10. Know other causes and management of PUD
11. Staging and management of stomach cancer
12. Be able to recall the various causes of diarrhea including but not limited to celiac disease (its diagnosis, management), bacterial overgrowth, short bowel syndrome, Whipple’s disease, mesenteric ischemia and ischemic colitis (diagnosis and management)
13. Be able to classify diarrhea into osmotic, post-surgical, bile salt induced, nocturnal and a gastric bypass complication and its management
14. Inflammatory bowel disease; diagnostic, screening and management startegies
15. Screening for colorectal cancer including polyposis syndromes and other genetic colon cancer syndromes
16. Diagnosis and management of diverticular disease
17. Diagnostic criteria and management of IBS
18. Understand radiation colitis pathophysiology, time of onset and management in the high risk population
19. Understand and recall various pancreatic disorders and their management including acute pancreatitis, chronic pancreatitis, cystic fibrosis, neuroendocrine tumors of the pancreas, pancreatic abscess and infection of the pancreatic abscess.
20. Cholelithiasis; diagnosis and treatment
21. Cholecystitis; etiology, diagnosis and management
22. Choledocholithiasis; diagnosis and management
23. Cholangitis; diagnostic criteria, indications of emergenct intervention and management
24. Viral hepatitis; acute and chronic
25. Cirrhosis; pathophysiology, diagnsosis, complications and management
26. Drug induced liver disease other than acetaminophen
27. Autoimmune hepatitis; diagnostic criteria and management
28. Other hepatic disorders including primary biliary cholangitis, Wilson’s disease, Liver disease of pregnancy, hepatic vein thrombosis, fatty liver and non-alcoholic steatohepatitis, fulminant hepatic failure, Gilbert’s syndrome
29. Alcoholic hepatitis; Maddrey’s score, management

**Core Reading (CR)**

It is expected that during the Inpatient GI Consult Rotation, the Resident will

read extensively on each case he (or she) has consulted on, by reviewing the relevant sections on ***UpToDate***.

Residents are encouraged to review the ***NEJM 360*** Gastroenterology section before starting the rotation (https://resident360.nejm.org)

Literature search using ***Pubmed*** is commonly performed to help practicing evidence-based medicine.

The Resident is also encouraged to master the section of GI in the ***MKSAP*** while rotating on the Inpatient GI Consult service.

# Formal Didactic Teaching

In addition to the didactic GI lectures incorporated in noon conferences targeting all internal medicine residents through the year, residents on the GI rotation are given an opportunity to review in depth most of the core curriculum topics using ***UpToDate*** and other sources.

Short didactic presentations involving specific topics will be performed by the GI consult team members.

Patient based teaching includes direct interaction between resident and attending physicians, bedside teaching, discussion of pathophysiology, and the use of current evidence in diagnostic and therapeutic decisions.

**High-Value Care**

The GI curriculum attributes to high-value care education for residents.

The five-step model for thinking about high-value cost-conscious care will be emphasized with the residents during this rotation:

*Step 1*: Understand the benefits, harms, and relative costs of the interventions being considered;

*Step 2:* Decrease or eliminate the use of interventions that provide no benefits and/or may be harmful;

*Step 3:* Choose interventions and care settings that maximize benefits, minimize harm, and reduce costs;

*Step 4*: Customize a care plan with each patient that incorporates the patient’s values and addresses patient and family concerns;

Step 5: Identify system level opportunities to improve outcomes, minimize harm, and reduce healthcare waste.

To bring value and cost into daily practice, the list of top 5 “Things Providers and Patients Should Question” that has been developed and endorsed by the American Society of Gastroenterology is posted on the Choosing Wisely website (<http://www.choosingwisely.org>) and includes:

1. For a patient with functional abdominal pain syndrome, CT scan should not be repeated unless there is a major change in clinical findings or symptoms.
2. For a patient who is diagnosed with Barretts esophagus, who has undergone second endoscopy that confirms the absence of dysplasia on biopsy, a follow-up surveillance should not be performed in less than three years as published by guidelines.
3. Do not repeat colonoscopy for at least 5 years for patient who have one or two small (<1cm) adenomatous polyps, without high grade dysplasia or villous histology, completely removed via a high quality colonoscopy
4. Do not repeat colorectal cancer screening for 10 years (by any method) after a high quality colonoscopy that does not detect neoplasia.
5. For pharmacological treatment of patients with GERD, long term acid suppression, should be titrated to the lowest effective dose needed to achieve therapeutic goals.

Other highvalue care recommendations are available on MKSAP

**Directly Supervised Procedures (DSP)**

Not applicable.

## Supervision and Lines of Responsibility

Interns and residents will work directly under the supervision of the attending physician. The chief medical residents, program director, and associate program directors are available 24 hours per day/7 days per week to discuss patient care issues and provide additional supervision if needed.

**Methods used to Evaluate the Resident during the Rotation**

The resident will be evaluated during this rotation by monitoring his/her attendance to rounds; reviewing his/her inpatient consult notes (including history of present illness, physical examination, assessment or differential diagnosis and plan or recommendations) and daily consult progress notes; evaluating his/her communication (with peers and patients) and professionalism; observing his/her clinical competency; as well as evaluating his/her short didactic sessions or other assignments.

### Principle Educational Goals by Relevant Competency and PGY Level

In the tables below, the principle educational goals for the Inpatient GI Consult Rotations are indicated for each of the six ACGME competencies and stratified by PGY level. It is expected that PGY2 and PGY3 residents continue to demonstrate those goals from the previous years in the program. The second column of the table indicates the method used to evaluate that goal.

**1) Patient Care**

|  |  |
| --- | --- |
| **PGY1** | **Evaluations Tools:** *Multisource, Direct Observation* |
| Obtain a complete History |  |
| Perform a Prioritized Exam |  |
| Define and identify the main problems which generated the consult |  |
| Generate and prioritize differential diagnoses for each problem |  |
| Initiate recommendations for common GI diseases conditions |  |
| **PGY2** | **Evaluations Tools:** *Multisource, Direct Observation* |
| Effectively communicate with primary/referring team after consultation |  |
| Being able to provide a broader differential diagnosis and appropriate therapeutic plan for common GI diseases conditions |  |
| Understand the approach to diagnose rare GI diseases conditions |  |
| **PGY3** | **Evaluations Tools:** *Multisource, Direct Observation* |
| Able to provide a broader differential diagnosis for rare or unusual GI diseases conditions |  |

**2) Medical Knowledge**

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| --- | --- |
| **PGY-1** | **Evaluation Tools:** *Multisource* |
| Able to apply knowledge of the basic and clinical sciences to common GI diseases problems |  |
| Able to formulate clinical questions to expand current knowledge base |  |
| **PGY-2** | **Evaluation Tools:** *Multisource* |
| Demonstrates knowledge of pathophysiology of uncommon diseases |  |
| Understands and demonstrates the use of literature in the management of patients |  |
| **PGY-3** | **Evaluation Tools:** *Multisource* |
| Able to utilize medical literature to solve clinical problems |  |
| Demonstrates ability to fill in gaps in knowledge that are relevant to current patient’s management without prompting |  |
| Demonstrates ability to teach underlying pathophysiology of medical conditions to primary/referring team |  |
|  |  |

**3) Practice-Based Learning and Improvement**

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| --- | --- |
| **PGY-1** | **Evaluation Tools:** *Multisource* |
| Able to identify and acknowledge gaps in personal knowledge and skills in the care of hospitalized patients |  |
| Able to identify quality improvement opportunities within the inpatient setting |  |
| **PGY-2** | **Evaluation Tools:** *Multisource* |
| Demonstrates knowledge in the quality improvement cycle |  |
| Demonstrates knowledge of inpatient quality measures |  |
| **PGY-3** | **Evaluation Tools:** *Multisource* |
| Cites and utilizes quality data to justify and adjust practice |  |
| Demonstrates multidisciplinary collaboration in solving clinical problems |  |
|  |  |

**4) Interpersonal Skills and Communication**

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| --- | --- |
| **PGY-1** | **Evaluation Tools:** *Direct Observation* |
| Communicates care plan effectively with patients and families |  |
| Communicate effectively with all non-physician members of the health care team to assure comprehensive and timely care of hospitalized patients |  |
| Present patient information concisely and clearly, verbally and in writing to peers and conducts handoffs appropriately |  |
| **PGY-2** | **Evaluation Tools:** *Direct Observation* |
| Teach colleagues effectively |  |
| Communicates effectively to multidisciplinary team |  |
| Able to communicate with patients and families concerning goals of care |  |
| **PGY-3** | **Evaluation Tools:** *Direct Observation* |
| Demonstrates effective communication with difficult patients |  |
|  |  |

**5) Professionalism**

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| --- | --- |
| PGY-1, 2, 3 | **Evaluation Tools:** *Direct Observation* |
| Behave professionally towards patients, families, colleagues, and all members of the health care team |  |

**6)Systems-Based Practice**

|  |  |
| --- | --- |
| PGY-1 | Evaluation Tools: *Multisource* |
| Understand the roles of the members of the multidisciplinary team. |  |
| Provides succinct written consultation notes |  |
| Has an understanding of the principles of cost-effective, evidence-based care |  |
| **PGY-2** | Evaluation Tools: *Multisource* |
| Proposes cost-effective diagnostic and treatment plans |  |
| **PGY-3** | Evaluation Tools: *Multisource* |
| Utilizes all members of the multidisciplinary team to effectively provide care to high-risk patients |  |