I. **Educational Purpose and Goals:** The purpose of the GI rotation is to expose the resident to common gastrointestinal and liver related problems that are frequently seen in the primary care setting, as well as to facilitate resident learning about gastrointestinal and liver diseases that are more frequently seen by gastroenterology subspecialty services. The resident will be expected to evaluate, develop an assessment, and propose appropriate diagnostic and management approaches for patients seen. There will be opportunity to observe and participate in gastroenterologic procedures.

II. **Principal Teaching Methods:**

1. **Supervised Direct Patient Care:** Residents evaluate and manage GI patients at Medical Center Hospital (MCH) and Midland Memorial Hospital (MMH) attended by physicians on clinical and full-time faculty at both institutions, including patients admitted to these gastroenterologists and patients referred to these physicians for GI consultation.

2. **Combined Management/Teaching Rounds:** Will occur after each patient encounter in the hospital and in the Gastrointestinal Subspecialty Clinic. Patients will be seen and examined by the residents who will formulate a hypothesis and a treatment plan and present it to the attending faculty. Both the resident and the attending will examine the patient and discuss the care.

3. **Didactic Lectures:** GI lectures are part of the Core Curriculum series of the Department of Internal Medicine. Residents on the GI rotation are required to attend all of the Core Curriculum lectures.

4. **Self-Study:** All residents are expected to read independently about patients seen in the hospitals and in clinics, on pulmonary topics assigned by faculty, and in preparation for core curriculum lectures.

III. **Rationale:** The goal of this rotation is aimed at broadening the Resident’s clinical decision making in gastroenterology and hepatology. This usually falls into one of the following three categories:

   a. Deciding whether to apply a specific diagnostic test in arriving at an explanation of a patient’s problem or determining the status of the patient’s disease.

   b. Deciding among a number of interventions available for managing a patient’s problem. This is extremely important keeping in view the recent explosion of gastroenterology and hepatology diagnostic techniques, imaging modalities and therapy. The resident will be in a supervised position by an attending in the evaluation and management of patients with common gastrointestinal problems, including the luminal tract, pancreas, biliary tract and the liver. Both primary gastrointestinal disorders and gastrointestinal manifestations of non-GI disorders will be covered.

   c. Offering a prognosis to the patient.
IV. **Objectives:**
   a. To interview and examine patients with common gastroenterology and hepatology disorders.
   b. To recognize pertinent clinical signs related to particular disease processes in gastroenterology.
   c. To describe the pathophysiology of common gastroenterology and hepatic disorders.
   d. To understand the indications and limitations of commonly ordered gastroenterology investigative tools along with serology with particular reference to patients with hepatic disorders.

V. **Educational Content:**
   1. **Patient characteristics:** Patients seen by the residents range from young adolescents with mild GI problems to elderly with advanced diseases. Patients are of different race and socioeconomic background and are seen in the GI clinic and the hospital.
   2. **Disease Mix:** Disease mix is quite broad, including acute and chronic GI complaints. GI Bleeding, hepatic diseases, gall bladder diseases, inflammatory bowel disease, and pancreatic diseases are commonly encountered.

**Examples of Area Covered Include:**

<table>
<thead>
<tr>
<th>Abdominal Pain and Distension</th>
<th>Heartburn</th>
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</thead>
<tbody>
<tr>
<td>Abnormal Liver Function Test</td>
<td>Hematemesis</td>
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<tr>
<td>Anorectal Bleeding and Pruritus</td>
<td>Indigestion</td>
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<td>Anorexia-Weight Loss</td>
<td>Iron Def</td>
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<td>Ascites</td>
<td>Jaundice</td>
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<td>Constipation</td>
<td>Liver Failure</td>
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<td>Diarrhea</td>
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<td>Dysphagia</td>
<td>Malnutrition</td>
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<tr>
<td>Fecal Incontinence</td>
<td>Nausea/vomi</td>
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<tr>
<td>Gastrointestinal Bleeding</td>
<td>Non CP</td>
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<tr>
<td>Acute and Chronic Hepatitis</td>
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<tr>
<td>Cirrhosis of Liver and its complications</td>
<td></td>
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<tr>
<td>Cholelithiasis</td>
<td></td>
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<tr>
<td>Pancreatitis</td>
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</tr>
</tbody>
</table>

3. **Learning Venues, Types of Clinical Encounters, Procedures and Services:**
   i. Fifty percent Inpatient/hospital consultations with Primary GI care and the rest of the time the resident is involved in outpatient care of the patients and learning endoscopic evaluations. Three ½ days per week are spent in a GI outpatient office. Residents also continue to attend their own Primary Care Continuity Clinics.
   ii. The residents are expected to examine and evaluate the new and established consultation patients and present them to the faculty and develop a management plan and discuss with the faculty.
   iii. Endoscopy suites are present in the inpatient settings. Residents will observe endoscopy and may learn endoscopy techniques with supervision of the GI attending.
4. **Structure of Rotation:** The rotation is a 4-week block. Residents see patients on the hospital consultative service. They also see patients in the GI clinic for three half days per week. Residents continue to attend their Primary Care Continuity Clinic two ½ days a week throughout the rotation. They also attend the mandatory weekly residency conferences.

VI. **Principal Ancillary Educational Materials:**
   a. At the beginning of the rotation, each resident receives a copy of the Gastroenterology curriculum’s Goals and Learning Objectives.
   b. At the beginning of each rotation materials are given to each resident including reading list and articles from the current literature and text books.
   c. Endoscopy virtual simulator is available for hand on training for flexible sigmoidoscopy.

VII. **Methods of Evaluation:**
   1. **Resident Performance:** Gastroenterology faculty complete written resident evaluation forms provided by the Internal Medicine Residency coordinators. The evaluation is competency-based, and uses a detailed assessment of resident’s effort, progress and achievement on each core competency component. Faculty review the written evaluation in person with each resident and provide detailed feedback on resident’s performance. In addition, the following sources and methods of evaluation are included in assessing residents performance: a) mini-CEX and CEX. b) all other (verbal, written) evaluation comments provided to the Program Director/Associate Program Director by faculty and community physicians interacting with the resident during GI rotation are documented in writing. f) performance on the periodic Gastroenterology exam administered as part of the monthly subspecialty exams. All evaluations are available for resident review (excluding direct review of evaluations completed by resident colleagues). All evaluations are part of the resident file and are incorporated into the semiannual performance review for directed resident feedback.
   2. **Procedures:** Residents submit documentation of any procedures performed during the rotation, on a hard-copy form, completed by supervising faculty. Procedure forms include supervisors’ evaluation of resident’s performance.

VIII. **Institutional Resources: Strengths and Limitations:**
   1. **Strengths:** Excellent volume and variety of patients creating an outstanding opportunity to learn gastroenterology and hepatology including endoscopic procedures.
   2. **Limitations:** Staff shortages in Gastroenterology sometime make it difficult to deliver adequate one to one interaction time between the faculty and the resident.

IX. **Rotation Specific Competency Objectives:**
   1. **Patient Care:**
      i. By the end of the rotation, residents of all years must be able to complete a comprehensive GI consultation including identification, chief complaint, history of present illness, past history, review of systems, personal and social history and complete physical examination with particular focus on the GI examination, and demonstrate ability to clearly and accurately communicate findings verbally and in writing.
ii. Residents will understand the indications and limitations of commonly ordered gastroenterology investigative tools (endoscopy, radiology, nuclear medicine etc) along with serology with particular reference to hepatic disorders.

iii. The resident will attempt to understand indications and limitations of drug therapy related to commonly encountered gastrointestinal and hepatic disorders.

iv. Residents will attempt to observe and participate in the performance of gastrointestinal endoscopies during the rotation.

2. Medical Knowledge:
   i. By completion of the rotation, the resident must be able to do a work-up of common gastrointestinal problems including GI bleeding, jaundice, acute and chronic diarrhea and acute abdominal pain. The resident should be able to apply clinical skills and analyze laboratory findings to obtain a differential diagnosis of the above problems.

   ii. Residents will develop satisfactory skill and competence in the use of specific gastrointestinal drugs.

3. Practice Based Learning and Improvement:
   i. The resident will be able to locate, critically appraise, and assimilates evidence from scientific studies and applies to own patients' health problems.

   ii. The resident will be able to use information technology to manage information, access on-line medical resources, and support self-education, patient care decisions and patient education.

4. Interpersonal and Communication Skills:
   i. Residents are expected to demonstrate professional communication skills throughout their interactions with gastroenterology patients and their families, GI attending and other clinicians and non clinical staff involved in patients' care. Residents are expected to act as a constructive and proactive member of the GI rounding team.

   ii. The resident will develop and demonstrate skill communicating with patients who severe and life threatening GI conditions and communicate effectively with the families of very ill patients.

   iii. The resident will create and sustain a therapeutic and ethically sound relationship with patients and their families.

   iv. The resident will demonstrate ability to communicates effectively and demonstrate caring, compassionate, and respectful behavior.

5. Professionalism:
   i. Throughout the rotation, residents are expected to exhibit reliability in their clinical duties, as well as integrity and respect in their interactions with patients, their family members, colleagues, and all other members of the healthcare team.

   ii. Residents will be able to demonstrate appropriate consultative principles of communication and responsiveness to professional consultative requests.

6. Systems Based Practice:
   i. The resident will be able to practice cost-effective health care and resource allocation while advocating for quality.

   ii. The resident will be able to works with health care managers and providers to assess, coordinate, and improve health care and system performance.
X. **Reading List:**
   d. Current medical literature provided during rotation.
   e. The Resident is encouraged to browse through the following websites in his/her leisure time;

**Gastroenterology Websites:**
   d. Major recent advances and updates in gastroenterology and hepatology from Europe and U.S.A. [http://www.gastrohep.com](http://www.gastrohep.com)
   f. Selected referenced articles from the literature.

**Acid – Peptic Disease (including H-Pylori and NSAIDs)**


**Colorectal Cancer**


**Gastrointestinal Bleeding**


**Inflammatory Bowel Disease**


**Liver Disease**


Pancreatic Disease


Miscellaneous