

## Residents' Curriculum

### Specialty: Gastroenterology and Hepatology

**Section Chief: Calvin Hall, MD**

**Secretary and Number: M. Salto, 312-326-2600**

**Office Address: 2600 S. Michigan Ave.**

**Other Attending Physician: Stuart Issleib, MD**

#### **Description of Rotation.**

The section of gastroenterology and hepatology offers residents a varied experience seeing patients in inpatient and outpatient settings. Residents will be exposed to different patient populations through attending clinics at both Mercy and UIC. Residents will be encouraged to provide appropriate and sensitive care to their patients. Through teaching sessions and reviewing GI board review questions, residents will expand their knowledge in gastroenterology and hepatology.

#### **Floor Schedule.**

On the first day of the rotation, an orientation meeting will be held with Dr. Hall in the GI Lab at 11 am to review goals and expectations.

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8a-9a			Tumor Board		Medicine Grand Rounds
9a-10a	Morning Report	Morning Report	Intern Morning Report	Morning Report	
10a-11a		GI Literature Review	Radiology Imaging	GI Literature Review	Radiology Imaging Rounds
11a-12p	GI Rounds	GI Rounds	GI Rounds	GI Rounds	GI Rounds
12p-1p	GI Rounds	GI Rounds	GI-ICU/Surgical Conference	GI Rounds	GI Rounds
1p-4p				Liver Clinic UIC	Medicine GI Board Review
3p			CORE Curriculum Lectures		

#### **Monday.**

**9am-10am. Morning Report.** Residents will present and discuss cases with attending physicians and colleagues.

#### **Tuesday.**

**10am-11am. GI Literature Review.** Cases will be reviewed with references to current and relevant literature.

#### **Wednesday.**

**10am. Radiology Imaging.** An attending radiologist will review GI cases.

**12noon. GI – ICU/Surgical Conference.** GI cases will be reviewed in a multi-departmental conference.

**3pm. CORE Curriculum.** Topics relevant to resident education will be covered.

#### **Thursday.**

**1pm. Liver Clinic.** Residents will be exposed to a busy tertiary care setting.

#### **Friday.**

**8am. Medicine Grand Rounds.** Various topics relevant to current healthcare will be presented.

**1pm. GI Board Review.** Residents will learn about gastroenterology by covering GI board questions.

#### **Clinics to Participate In.**

Clinic	Doctors' Names	Day and Time	Location	Phone Number
Liver	Dr. Cotler	Thurs 1p	UIC OCC 1 <sup>st</sup> Floor	312-996-3300

#### **Competency-Based Rotation Goals and Objectives.**

Residents will work on achieving the following objectives and be assessed by the indicated method: A, B, C, and/or D. Please refer to the legend directly below. The methods are re-stated in the section "[Assessment Methods \(Residents\)](#)"

#### **Assessment Methods Legend.**

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- A. Attending physician observation in clinic and on the floors.
- B. Informal and/or formal questioning, verbal quizzes by the attending physician.
- C. Review of residents' H&P, SOAP notes and consultation notes.
- D. Residents will give lectures on relevant subjects and on relevant journal articles.

#### **Patient Care.**

**Goal.** "Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health."<sup>3</sup>

#### ***Specialty-Specific Competencies and Objectives.***

- Residents will gather a pertinent past and present history from the patient, as well as caregivers and previous providers. They will include past laboratory evaluation, radiologic data and treatments. They will also perform relevant physical exam and be able to evaluate the following complaints: (A, B, C, D)
  - Abdominal distention, abdominal pain, anorectal discomfort, anorectal bleeding, anorectal pruritus, anorexia, weight loss, ascites, constipation, diarrhea, excess intestinal gas, fecal incontinence, food intolerance, gastrointestinal bleeding, heartburn, hematemesis, indigestion, iron-deficiency anemia, jaundice, liver failure, malnutrition, melena, nausea, non-cardiac chest pain, swallowing dysfunction, vomiting.<sup>2,4</sup>
- Residents will be able to perform the following procedures related to the practice of gastroenterology: (A)
  - Flexible sigmoidoscopy, paracentesis, placement of nasogastric tube, Sengstaken-Blakemore tube (optional).<sup>1,2</sup>
- Residents will aim to improve the lives of their patients by encouraging a healthy lifestyle and appropriately managing their health care issues, as well as preventing further disease. Residents will continue to provide care at the end of life. (A, C)
- Residents will offer guidance regarding therapy that is evidence-based and tailored to the patient and his or her preferences. (A, C)
- Residents will formulate a differential diagnosis based on their findings and study of the medical literature. (C)
- Residents will construct plans for further diagnostic evaluation and management. (C)
- Residents will provide the referring physician with a complete written assessment and recommend a plan of care tailored to the patient's situation and preferences. (C)

#### **Medical Knowledge.**

**Goal.** "Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care."<sup>3</sup>

#### ***Specialty-Specific Competencies and Objectives.***

- Residents will understand the current pathophysiology and standard treatment for following diseases: (A, B, C, D)
  - Abnormal liver function test, acute abdomen, acute appendicitis, alcohol and drug-induced liver disease, bowel obstruction, cirrhosis (including complications), diarrhea (acute, chronic), fulminant hepatic failure, hepatic abscesses, liver transplantations, malnutrition, pancreatitis (acute, chronic), peritoneal disease, pregnancy-related liver disease.
  - Biliary tract disease (acalculous cholecystitis, acute cholecystitis, biliary obstruction, cholelithiasis, cholangitis, common bile duct stones, Mirizzi's syndrome).
  - Cholestatic liver disease (primary biliary cirrhosis, primary sclerosing cholangitis).
  - Complications of gastric surgical procedures (bariatric surgery, gastric resection).
  - Complications of liver disease (ascites, gastroesophageal varices, hepatic encephalopathy, hepatocellular carcinoma, hepatopulmonary syndrome, hepatorenal syndrome, portal hypertension, spontaneous bacterial peritonitis).
  - Disorders of the stomach and duodenum (dyspepsia, gastric polyps [adenocarcinoma, polyps, subepithelial lesions], *Helicobacter pylori* infection, nonsteroidal anti-inflammatory injury, peptic ulcer disease [bleeding ulcer, *Helicobacter Pylori*-induced gastritis, obstruction, perforation, uncomplicated ulcer]).
  - Esophagitis (eosinophilic, infectious, pill-induced).
  - Gastrointestinal bleeding (lower [diverticular, hemorrhoids, ischemic colitis, vascular ectasias], occult, upper).

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- Gastroesophageal reflux disease (Barrett's esophagus, esophageal stricture, extraesophageal manifestations [asthma, cough, laryngitis], uncomplicated).
- Hepatitis (autoimmune, drug-induced, viral).
- Infiltrative liver diseases (inherited, metabolic, other acquired).
- Inflammatory bowel disease (Crohn's disease, microscopic colitis, ulcerative colitis).
- Intestinal disorders (diverticular abscess, diverticulitis, diverticulosis, hemorrhoids, irritable bowel syndrome, malabsorption [celiac disease, short-bowel syndrome, small-intestine bacterial overgrowth, pancreatic insufficiency], maldigestion, mesenteric vascular disease).
- Intestinal ischemia (acute mesenteric ischemia, chronic mesenteric ischemia, colonic ischemia).
- Metabolic liver disease (alpha-1 antitrypsin deficiency, hereditary hemochromatosis, nonalcoholic fatty liver disease, Wilson's disease).
- Motility disorders (colon, constipation, dysmotility in diabetic patients, esophagus [hypertonic motility disorders {achalasia and pseudoachalasia, diffuse esophageal spasm}, hypotonic motility disorders], gastroparesis, ileus and pseudo-obstruction, small intestine, stomach).
- Neoplasms (cancer [biliary tract {adenocarcinoma of the ampulla of Vater, cholangiocarcinoma, gallbladder carcinoma}, colonic polyps, colorectal, esophageal, hepatobiliary, hepatic, hereditary colon cancer syndromes {attenuated familial adenomatous polyposis, familial adenomatous polyposis, hereditary nonpolyposis colorectal cancer, juvenile polyposis syndrome, Peutz-Jeghers syndrome }, pancreatic {adenocarcinoma, cystic neoplasms, neuroendocrine tumors}])).<sup>1, 2, 4</sup>
- Residents will judiciously order and be able to interpret the following tests: (A, B, C)
  - 24-hour esophageal pH monitoring, assays for *Helicobacter pylori*, Bernstein test, biopsy of the gastrointestinal mucosa, blood tests for liver diseases (autoimmune, cholestatic, genetic), colonoscopy, contrast studies (barium enema, small-bowel follow-through, upper gastrointestinal series), D-xylose absorption test and other small bowel absorption tests, endoscopic retrograde cholangiopancreatography, esophageal manometry, fecal electrolytes, fecal leukocytes, fecal osmolality, gall bladder radionuclide scan, gastric acid analysis, gastric emptying scans, imaging of the abdomen (computed tomography, magnetic resonance imaging, ultrasound), lactose and hydrogen breath tests, laparoscopy, laxative screen, liver biopsy, mesenteric arteriography, percutaneous transhepatic cholangiography, qualitative and quantitative stool fat, secretin stimulation test, serum B12 and Schilling tests, serum gastrin level, stool for ova and parasites, test for occult blood, upper endoscopy, viral hepatitis serology.<sup>1, 2</sup>

### **Practice-Based Learning and Improvement.**

**Goal.** "Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life long learning."<sup>3</sup>

#### ***Specialty-Specific Competencies and Objectives.***

- Residents will analyze processes to evaluate how to improve patient care and to enhance patient-doctor interaction. (A, C)
- Residents will strive to further their knowledge and skills by assessing where they need to improve. They will work to correct these deficits. (A, C)
- Residents will make use of current technology to stay abreast of standard of care in medicine, to justify assessments and plans for patients and to educate patients and other healthcare workers. (A, C)
- Residents will approach learning with a willingness to discover new strategies and theories on clinically-relevant physiology and pathophysiology in order to make sound medical decisions and critically solve problems. They will show good judgment when reviewing medical literature and studies. (A, C)

### **Systems-Based Practice.**

**Goal.** "Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care."<sup>3</sup>

#### ***Specialty-Specific Competencies and Objectives.***

- In order to provide excellent care, residents will have an understanding of the setting of health care and how it is organized. They will strive to continually improve medical practices. (A, C)
- Residents will be aware of the shortcomings and the strengths that occur with different patient care settings and will be able to adapt plans to maximize care for patients. (A, C)

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- Residents will aim to provide cost-effective care for current sickness and for prevention of future illness. (A, C)
- Residents will work with other health care providers, including pharmacists, nurses and social workers, to encourage patients to fully utilize the health care system for better management of disease. (A, C)
- Residents will learn from system errors and near misses and will work on improving guidelines to lessen future mistakes. (A, C)

#### **Professionalism.**

**Goal.** “Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.”<sup>3</sup>

#### ***Specialty-Specific Competencies and Objectives.***

- Residents will show dedication to providing conscientious treatment with an impeccable bedside manner. (A, C)
- Residents will hold themselves accountable for their actions, as well as inactions, to their patients, to their peers and to the community. (A, C)
- Residents will be considerate of the differences in patients, including sex, age, sexual orientation, lifestyle, opinions, and they will strive to be compassionate and understanding in all their interactions with patients and families. (A, C)
- Residents will strive towards upholding appropriate values and ideals. They will maintain strict levels of confidentiality. (A, C)
- Residents will do their part to enrich the growing body of knowledge in gastroenterology and hepatology and to reflect upon and advance the standards of care. (A, C)

#### **Interpersonal and Communication Skills.**

**Goal.** “Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and teaming with patients, their families, and professional associates.”<sup>3</sup>

#### ***Specialty-Specific Competencies and Objectives.***

- Residents will be polished consultants in hepatology and gastroenterology by collaborating with other physicians and health care providers in a timely and effective way. (A, C)
- Residents will maintain honest and open dialogue with patients, caregivers, families and other health care workers. (A, C)
- Residents will be aware of the importance of active listening, body language and open-ended questioning to obtain a thorough history, in addition to explaining management plans and procedures, as well as obtaining informed consent. (A, C)
- Residents will be prompt and accurate when completing medical records. (A, C)

#### **Teaching Methods.**

- Multi-disciplinary conferences.
- Teaching during daily rounds and in clinic.
- Weekly GI board question review.

#### **Assessment Methods (Residents).**

Resident performance will be assessed using the methods below, and this assessment will be summarized on an evaluation completed by the attending physician at the end of the rotation:

- A. Attending physician observation in clinic and on the floors.
- B. Informal and/or formal questioning, verbal quizzes by the attending physician.
- C. Review of residents' H&P, SOAP notes and consultation notes.
- D. Residents will give lectures on relevant subjects and on relevant journal articles.

#### **Assessment Method (Program Evaluation).**

- Residents will have the opportunity to give feedback regarding their experiences at the end of the rotation.

#### **Level of Supervision.**

- Rounds with the attending on a daily basis.

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- Patient care notes will be reviewed.
- Procedures will be supervised.

**Educational Resources.**

- Annual UIC GI Fellows' Research Symposium
- Fauci, A. S., Braunwald, E., Kasper, D. L., Hauser, S. L., Longo, D. L., Jameson, J. L., & Loscalzo, J. (2008). *Harrison's principles of Internal Medicine, 17<sup>th</sup> Edition*. New York, NY: McGraw Hill Medical.
- Feldman, M., Friedman, L.S., & Brandt, L. J. (2010). *Sleisenger and Fordtran's gastrointestinal and liver disease, 9<sup>th</sup> Edition*. Saunders.
- Schiff, E. R., Sorrell, M. F., & Maddrey, W. C. (2006). *Schiff's diseases of the liver, 10<sup>th</sup> Edition*. Lippincott Williams & Wilkins.
- Herrine, S. K., Fekete, T., Bosworth, B. P., Kozuch, P., Loren, D. E., Navarro, V. J., ...Idell, K. (2009). Gastroenterology and Hepatology. In Weinberger, S. E., Kanya, D. T., McKinney, S., Wells, M., Rossi, C., Krumm, B., ...O'Sullivan, S., *Medical Knowledge Self-Assessment Program 15*. Philadelphia, PA: American College of Physicians.

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**References:**

- <sup>1</sup> Ende, J., Kelley, M. A., Ramsey, P. G., Sox, H. C., Abboud, F. M., Ruppert, R. D., ...Zuckerman, R. (1997). *Graduate education in Internal Medicine: A resource guide to curriculum development*. Philadelphia, PA: American College of Physicians.
- <sup>2</sup> Alguire, P., Broder, M., DeHoratius, R., Goroll, A., Kountz, D., Lynn, L., ...Yingling, K. (2002). *FCIM Internal Medicine curriculum: A resource guide to curriculum development, 2<sup>nd</sup> edition*. Retrieved from [http://www.acponline.org/education\\_recertification/education/training/fcim](http://www.acponline.org/education_recertification/education/training/fcim)
- <sup>3</sup> *Curriculum template*. (n.d.). Retrieved from [http://www.acgme.org/outcome/e-learn/module4\\_CurriculumTemplate.doc](http://www.acgme.org/outcome/e-learn/module4_CurriculumTemplate.doc).
- <sup>4</sup> Herrine, S. K., Fekete, T., Bosworth, B. P., Kozuch, P., Loren, D. E., Navarro, V. J., ...Idell, K. (2009). Gastroenterology and Hepatology. In Weinberger, S. E., Kanya, D. T., McKinney, S., Wells, M., Rossi, C., Krumm, B., ...O'Sullivan, S., *Medical Knowledge Self-Assessment Program 15*. Philadelphia, PA: American College of Physicians.