

**SCRIPPS CLINIC/SCRIPPS GREEN HOSPITAL  
GASTROENTEROLOGY FELLOWSHIP  
CURRICULUM  
7/1/2022**

**Introduction:**

Congratulations on being selected for training in the exciting field of Gastroenterology. The gastroenterology community is a small, close-knit group, which takes pride in developing superb clinicians and educators. You were selected not just for your potential as a competent gastroenterologist but also your personal traits as caregiver, teacher, and member of the community.

**Our Vision Statement:**

- 1) To teach and maintain the highest principles of ethics, humanism and professionalism
- 2) To facilitate the learning of the scientific method, with preparation for life-long learning, independent and critical thinking, and a constant desire for self-improvement.
- 3) Consistent awareness of our roles as Teachers and Physicians
- 4) Our ultimate goal of training — excellence that is uncompromising and unqualified.

**Mission:**

The mission of the Scripps Clinic/Scripps Green Hospital Gastroenterology Fellowship training program is to produce physicians that 1) are clinically competent in the field of Gastroenterology; 2) are capable of working in a variety of settings; and 3) possess habits of life-long learning to build upon their knowledge, skills and professionalism. The focus is on education, inquiry and scholarship. We expect the trainees to develop their skills in an environment of inquiry and scholarship where they find their most appropriate place in the science of medicine and learn to appreciate their position in the healing profession.

**Specific Goals:**

The curriculum has specific goals and objectives. The curriculum includes for each rotation or major learning experience the educational purpose; teaching methods; the mix of diseases, patient characteristics, types of clinical encounters, procedures, and services; reading lists, pathological material, and other educational resources to be used; and a method of evaluation of fellow performance. The specific goals for all physicians training in Gastroenterology include acquiring clinical competence, capability of working in varied settings, and development of life-long learning habits. Our program follows closely the AGA Core Curriculum model outlined in

Gastroenterology in May 2007 and the Entrustable Professional Activities from the ACGME in 2014, and includes the multiple areas encompassing the breadth of knowledge and skills required for the practice of gastroenterology.

1. Clinical competence is defined as acquiring a basic core of knowledge of clinical manifestations, clinical presentations, pathophysiology and management of Gastrointestinal/Hepatic diseases, and systemic diseases with Gastrointestinal manifestations. The core knowledge base includes the following:
  - A. An appropriate content of anatomy, biochemistry, ethics, epidemiology, human behavior, immunology, physiology, pharmacology and statistics relative to the practice of Gastroenterology.
  - B. The clinical skill of data collection, including history taking, physical examination, and the appropriate request of laboratory and imaging studies.
  - C. The ability to formulate appropriate differential diagnoses and therapeutic plans based on the ability to critically analyze the available data and integrate the analysis, using the basic fund of medical knowledge.
  - D. The ability to perform as a consultant or a health care team leader when summoned.
  - E. The knowledge to treat the common and uncommon diseases found in the practice of Gastroenterology; to develop the understanding of the principles, indications, contraindications, risks, costs, and expected outcomes of the various treatments; to recognize the need for consultation and reasonable expectations from requested consultations.
  - F. The performance and interpretation of diagnostic and therapeutic procedures common to the practice of Gastroenterology. This skill includes the understanding of the principles, indications, contraindications, risks, costs, and expected outcomes of these specialized procedures.
  - G. Further development of appropriate communication skills with patients, peers, and paramedical personnel.
  - H. The development of qualities of professionalism and humanistic skills, including integrity, compassion, and respect for patients, peers and other medical personnel.
  - I. Skill and expertise in research. All fellows must be capable of demonstrating competence in the understanding of the design, interpretation and implementation of research studies, specifically including methodology, critical interpretation of data, critical interpretation of published research, and the responsible use of informed consent.

2. The accomplished Gastroenterologist must be able to work in a variety of settings including the following:

- A. As a consultant to other health care providers, in the acute inpatient setting. This training is provided in an inpatient rotation. The fellows are supervised by on-site faculty members who are scheduled to attend the inpatient service for a week at a time. One faculty member is devoted solely to Hepatology and the Liver Transplantation service, while a second faculty member is devoted to General Gastroenterology and Biliary tract diseases. Set hours each morning or afternoon are made free by the faculty members to offer his/her full time service to the supervision and teaching of the fellow.
- B. As the primary health care provider in the outpatient/ambulatory clinic, this training is provided during rotations through the outpatient service. The outpatient assignment is in monthly blocks and is supervised by a full time faculty member. The schedule of the faculty member is arranged in order that appropriate supervision and training can be provided on a full-time basis. In addition, the fellows maintain a panel of patients with varied diseases in the fellows' continuity clinic, staffed by an attending with no other patient care responsibilities during fellow clinic hours. This function is fulfilled primarily by a set of assigned members of our teaching staff but any high volume situations can be covered by any of the full time faculty.

3. Life-long education is an essential component for competent physicians and maintenance of certification. Life-long learning is required for the acquisition, critical analysis, synthesis, and reassessment of knowledge, skills, and professionalism. All of the fellows must be capable of demonstrating their ability to initiate a pattern of life-long education by the following:

- A. Independent study including reading journals, board review courses, textbooks, and other available resources much of which will be done during non-work hours;
- B. Independent attendance, presentation and participation in the organization and performance of local educational venues;
- C. Independent attendance and presentation at regional and national professional scientific meetings and conferences.

### **Evaluation:**

The evaluation of a gastroenterology fellow implies defining “competence”, i.e.: the ability to carry out a set of tasks or a role adequately and effectively. As a board certified/eligible general internist, a gastroenterology fellow already possesses a high degree of clinical skills: procedural, interpersonal, fund of knowledge, etc. The additional knowledge acquired during GI fellowship will build on this firm foundation leading to mastery of pathophysiology, epidemiology, natural history of disease processes and the acquisition of clinical skills in medical interviewing, physical examination, procedural competency as well as continuous quality improvement. Medical training should be oriented towards the **six general competencies**: patient care, medical knowledge, practice-based learning and improvement, interpersonal skills and communication, professionalism and systems-based practice. There are also now 23 sub-competencies that will be used to evaluate Fellows, as part of the NAS (next accreditation system). The Fellows will be

evaluated twice a year by the Clinic Competency Committee that includes Attendings and Support Staff. The primary goals and objectives of evaluating these additional issues are to allow the faculty to evaluate the skills/values/attitudes of the fellow outside of a written exam and encourage self-evaluation. The evaluation process is continual and dynamic, occurring daily/weekly/monthly in various locations: on rounds, in the procedure rooms, presenting conferences, developing research projects, etc... Information will be obtained from the core faculty, outside faculty, referring physicians, clinic ancillary personnel and even patients themselves. Given each trainee's variability in background, experience and aptitude continual assessment and feedback will occur thus allowing "mid-course" adjustments appropriate to each trainee's needs and progress.

Fellows are evaluated on an ongoing basis for their ability and progress in achieving clinical competence, the ability to work in a variety of settings, their demonstration of life-long educational patterns, skills at taking a pertinent history, performing a comprehensive examination, interpreting diagnostic tests and formulating therapeutic plans for GI patients. Additional specific evaluations include: pathology examinations at the end of hollow organ pathology and liver pathology instruction. At the conclusion of each educational experience, formal face-to-face evaluation of the fellows' performance is conducted by each attending faculty member. Procedural evaluations in endoscopy and colonoscopy are conducted after each monthly rotation. Evaluations are conducted by both residents and faculty members outside the program being evaluated. A written report is forwarded to the GMEC where it is formally discussed and reviewed. Appropriate corrective actions, if indicated, are recommended and monitored by the faculty and the GMEC.

The work pattern of Fellows is monitored to ensure that the hours do not exceed 80 hours per week or 24 consecutive hours. Clinical work hours include time in the hospital/clinic and also time spent on patient care outside of the program (dictations at home, moonlighting, etc) but does not include non-patient care activities (preparing talks, board review, etc). The fellows are assessed for excess stress related to their work or personal issues. They are to report to the PD any their concerns in these regards.

### **Methods of Evaluation:**

In order for the training program to assess its ability to meet its goals and objectives, the program has an evaluation process, including formative and summative evaluations of the fellows, and an evaluation process of the program and the faculty. At the end of each month, fellows evaluate attendings they interacted with in the previous month. Twice a year, fellows evaluate the program and the various rotations, including inpatient and outpatient services, continuity clinic, research experience, etc.)

### **Formative Evaluation of the Fellows**

Formal formative evaluations occur at the completion of any substantive interaction with a specific faculty member or specific rotation. For each clinical rotation, the supervising faculty member will review the objectives at the beginning of the rotation, provide mid-rotation feedback, and complete a final evaluation form. This final evaluation form is found in

MyEvaluations. This form addresses the evaluation of the competencies recommended for evaluation by the ACGME. All faculty members must complete the form at the completion of the rotation. They are asked to review their impressions directly with the fellow. All completed evaluation forms are returned to the Program Director for review and are available electronically.

The Graduate Medical Education Committee (GMEC) meets at least quarterly. Special meetings may be called if there are any issues, which need to be addressed in a more timely fashion. At this quarterly GMEC meeting, all Program Directors are required to give a detailed discussion of issues surrounding their program, particularly as it relates to institutional support. In addition, the Internal Medicine Residency Program Director has appointed an Internal Medicine core faculty member, as Director of the Evaluation Committee, to meet with the subspecialty residents, individually, on a 6-monthly basis. The purpose of this meeting is for the residents to review their individual training programs. Specific, directed questions relating to curriculum, work hours, quality of teaching, amount of service versus education, research opportunities, etc. are reviewed. In addition, the residents are given ample opportunity to address any aspect of Graduate Medical Education they have concerns about, whether it is program or institution specific. These evaluations are then summarized in an anonymous fashion so that no individual resident can be identified and then are forwarded to the Program Director, with a copy to the GMEC. The DIO makes monthly reports to the Scripps Green Hospital Medical Executive Committee on the training programs. In addition, mid-cycle internal reviews are conducted on every training program at Scripps Clinic/Scripps Green Hospital.

Completed evaluation forms submitted to the Program Director are immediately reviewed upon their receipt. Any forms that contain rating less than satisfactory in any category will require an immediate conference between the fellow and the Program Director to identify causes for the poor performance and identify means for improving the deficiency.

Fellows are required to keep a procedure log, identifying the procedure, date, indication, outcome, complications, and name of supervising physician. A copy of this log is provided to the Program Director semi-annually for placement in the fellow's permanent file.

Semi-annually, the Clinical Competency Committee (CCC) will meet to discuss and evaluate the fellows using data from MyEvaluations forms, personal contact, as well as input from support staff. Then the fellow will confer individually with the Program Director to review the CCC evaluation. This meeting is to provide feedback to the fellow on their performance and to identify areas for professional enhancement. A written summary of this session is placed in the fellow's permanent file.

## **Summative Evaluation of the Fellows**

The fellows meet individually with the Program Director bi-annually and are provided with feedback on their performance in both a formative and summative fashion. A written summary of the fellow's evaluations in the quarterly conference is placed in the fellow's permanent file.

### **Procedural Competency and Evaluation of the Fellows**

The procedural skills of the fellows are reviewed on a monthly basis by the supervising attending. Fellows are provided feedback on a regular basis during each procedure day. They are formally evaluated using the ASGE Assessment of Competency in Endoscopy (ACE) Tool for EGD and colonoscopy at least monthly and potentially more frequently if there are deficiencies in need of correction. Fellows who are felt to be below the level of proficiency for their level of training may be given additional procedural assignments with close supervision and instruction to ensure that the fellow reaches the expected level of competency.

### **Evaluation of the Faculty and Program**

Semi-annually the fellows give feedback to the Program Director at the time of the semi-annual reviews conducted by the Evaluation Chair of the GMEC. They also complete and return an evaluation form of the faculty after each rotation. They are also in contact with the Chief Clinical Fellow of Scripps Clinic who sits on the GME Committee and the Evaluation Committee to voice concerns both of the program and the institution. In the spring of each year, the fellows complete an institutional/program evaluation form distributed by the Department of Graduate Medical Education. This form is program specific, and entirely confidential. The results of the surveys are summarized by the Director of Graduate Medical Education and the Director of Evaluation of the GMEC and are reported to the subspecialty Program Directors for review, improvement and correction.

An evaluation form is sent to the 6 most recent graduates of our program to discern their constructive comments regarding the pros and cons of our program as they see it after several years in practice.

The American Gastroenterology Association has developed a formal "in-service examination" for GI, called the GTE. This test will be given to all fellows and can be used by the fellows as a self-assessment tool for knowledge and areas needing improvement. This test will be given each Spring. The other self-assessment tools in the department may be used, including: the Gastroenterology Self Assessment Program, The GESAP Endoscopic video questionnaire, and others. History and Exam skills will be assessed using multiple mini-CEXs performed throughout the three years.

Evaluations of the fellows by the nurses and ancillary personnel also occur. Feedback from these evaluations was given at the semi-annual evaluation. We will add patient evaluation as part of the 360 degree process. These evaluations will be communicated with the fellows during the semi-annual meetings. Additionally, consulting physicians will be asked to submit evaluations

of the quality of the service provided by each fellow. These evaluations will be part of the 360-degree evaluation process.

### **Specific Objectives:**

A. At the completion of the gastroenterology fellowship training, the fellow should have mastered the following specific objectives as they pertain to each of the specific goals of the curriculum:

1. Clinical competence in a variety of clinical settings:
  - a. Mastery of the majority of diseases seen in the practice of gastroenterology, including the uncommon and complicated. Specific diseases that should be mastered by the end of fellowship training are as follows: neoplasia of the GI tract (esophageal tumors, gastric tumors, small intestinal tumors, colonic tumors, pancreaticobiliary tumors, liver tumors), pancreatic disorders (pancreatic adenocarcinoma, pancreatic endocrine tumors, acute and chronic pancreatitis, pancreatic insufficiency), gallbladder disease (acute cholecystitis, gallbladder polyps and cancer), biliary disease (choledocholithiasis, cholangiocarcinoma, Mirizzi syndrome, post-cholecystectomy disorders), liver disease (acute viral hepatitis, drug-induced hepatitis, cholestatic liver disorders, cirrhosis, hepatitis C, hepatitis B, primary biliary cirrhosis, primary sclerosing cholangitis, Budd-Chiari syndrome, alcoholic hepatitis, alcoholic cirrhosis, alpha-1-antitrypsin deficiency, Wilson disease, hemochromatosis), esophageal disorders (GERD, esophagitis, esophageal cancer, hiatal hernia, esophageal dysmotility syndromes, eosinophilic esophagitis), gastric cancer, gastric ulcers, subepithelial gastric tumors, gastritis, Helicobacter pylori infection, eosinophilic gastroenteritis, carcinoid, intestinal lymphoma, acute colonic pseudo-obstruction, constipation, diarrhea, nausea, vomiting, ascites, inflammatory bowel disease (ulcerative colitis, Crohn's disease, and their complications), and microscopic colitis.
  - b. Proficiency as a consultant and leader of a multidisciplinary health care team.
  - c. Communication skills that allow the fellow to perform as the health care team leader with peers and professionals.
  - d. Proficiency in the ability to teach similar skills to trainees at junior levels. Fellows have opportunities to teach the internal medicine residents as well as rotating medical students. On a case-by-case basis, fellows can teach interns and residents in the inpatient setting, give lectures on core topics such as management of GI bleeding, diarrhea and ascites as part of the internal medicine residency lecture series, and serve as junior faculty for weekly "attending rounds" with the housestaff.
  - e. Professionalism and humanistic skills at a level, which serves as a model for trainees at a junior level.

- f. Specific research objectives outlined for the fellowship program and have produced sufficient research work to enable them to submit their work for peer reviewed presentation, scientific meetings, manuscript submissions, or grant applications for research funding.
2. Capability of working in varied settings
  3. Life-long learning:
    - a. Fellows will demonstrate proficiency in coordinating and participating in conferences, and arranging conference topics and schedules.
    - b. Fellows will demonstrate mastery of teaching skills in their interaction with trainees in junior levels of training. This may include supervised teaching interactions with trainees such as junior level fellows, residents and medical students.
  4. Process Improvement and Outcomes Projects:
    - a. In order to promote lifelong learning and continuous improvement, the GI division at Scripps will require a process improvement project from each fellow.
    - b. Fellows (with guidance from the program director or a faculty mentor) will propose, design, and execute a process improvement project. These projects should be aimed at promoting quality care, patient or staff safety, or enhanced learning and education.
    - c. Documentation of this process should be kept by each fellow and reviewed by the Program Director every 6 months. This will result in a manuscript to be written by the fellow including the background, methods, results, and discussion.
  4. Quality Improvement and Patient Safety Curriculum:
    - a. A formal curriculum will be proposed by the GME QI/PS subcommittee which will be mandatory for fellows.

### **Methods for Teaching Gastroenterology:**

In order to achieve the goals and objectives for the fellowship program, the following experiences have been established for the purpose of teaching Gastroenterology fellows. These include: A) Inpatient gastroenterology and hepatology experiences; B) Ambulatory gastroenterology and hepatology experiences; C) Ambulatory rotations with other clinical subspecialties; D) Didactic conferences; E) Nutrition experience; F) GI Surgery experience; G) GI Radiology experience; H) Motility experience; I) Community and HIV experience; J) Research experience; K) continuing medical education and society participation; L) development of teaching skills; M) Pediatrics; N) Advanced endoscopy rotation; and O) IBD rotation.

#### A. The inpatient gastroenterology experience:

Gastroenterology fellows will admit acutely ill patients with either gastroenterologic and hepatologic problems to the hospital, depending on which of these services they are



assigned at the time, as each service is separate. The fellows serve as a consultant for other health care practitioners in caring for hospitalized patients. The inpatient experience consists of taking a detailed history and physical examination, formulating an assessment and differential diagnosis and proposing a diagnostic and therapeutic plan. The fellows present this data to the inpatient attending who will digest the information, ask directed questions, broaden or hone the differential diagnosis, make bedside rounds, teach the fellow certain aspects of physical examination and, ultimately, guide the fellow in a diagnostic and therapeutic approach. The inpatient GI fellows perform all procedures on inpatients and these procedures include paracentesis, esophagogastroduodenoscopy (with biopsy, dilation and control of hemorrhage), colonoscopy (with biopsy, polypectomy, control of hemorrhage and dilation), flexible sigmoidoscopy, placement of percutaneous endoscopic gastrostomy feeding tubes and liver biopsy.

The specific experience on the inpatient service, including rounds, teaching bedside, interaction with primary care, house officers, other subspecialties, are numerous.

**B. The ambulatory gastroenterology experience:**

The ambulatory experience consists of different opportunities. Fellows have a continuity clinic one half-day per week. Patients with a wide variety of outpatient problems are cared for including patients with chronic diseases as well as urgent gastroenterologic problems, which can be seen quickly. Common problems which are seen during this rotation include abdominal pain, gastrointestinal hemorrhage, anemia, weight loss and abnormal liver enzymes.

An attending is assigned each week to serve as mentor for the continuity clinic. Fellows take a detailed history, perform a comprehensive physical examination, and review available data. All presentations are with the attending and an assessment, differential diagnosis, diagnostic and therapeutic plan is generated. Patients identify the fellow as their primary GI doctor. Patients requiring follow-up are seen by their identified fellow.

A second outpatient experience is paired with a particular attending for a month. General gastroenterologic problems are encountered and managed. The same format is used as above. Expected diagnoses or complaints include GERD, dysphagia, abdominal pain, bloating, flatulence, diarrhea, constipation, gastrointestinal hemorrhage, colorectal cancer screening, weight loss, nausea, vomiting, anemia, ulcerative colitis, Crohn's disease, colon cancer, colonic adenomas.

Other experiences in the outpatient arena include focused rotations at outside facilities for experience in HIV diseases, acute GI bleeding, gastrointestinal motility, nutritional care, endoscopic ultrasound, ERCP, etc.

Each year as the fellow obtains more experience and skills, he/she is given more responsibility in terms of patient care, performance of procedures, teaching and research.

The *first-year fellow* learns basic skills of endoscopy and becomes thoroughly familiar with common gastroenterologic diseases and presentations of systemic diseases. Faculty will be present for all endoscopic procedures performed by Fellows. The faculty is ultimately responsible for the performance and outcome of the procedure. Both faculty and fellows share responsibility to assure appropriate medical care after procedures, including follow-up of pathology results.

The first-year fellow hones his/her skills at taking a pertinent history, performing a comprehensive examination, interpreting diagnostic tests and formulating therapeutic plans for GI patients. By the end of the first year, it is expected that the fellow will be able to perform to completion basic endoscopies such as flexible sigmoidoscopy, esophagogastroduodenoscopy, colonoscopy, and conscious sedation. The first year fellow performs paracentesis with supervision and will have had first-hand experience with esophageal food bolus obstruction, placement of a percutaneous endoscopic gastrostomy feeding tube, colonic polypectomy and liver biopsy. The first year fellow is expected to begin to learn the techniques of bedside ultrasound for abdominal paracentesis and marking for liver biopsy. The fellow will observe liver biopsies and become acquainted with technique as well as beginning to perform liver biopsy under supervision. The first year fellow will become acquainted with and understand the guidelines for liver transplant candidacy and participate routinely in the liver transplant evaluation process (there are over 100 evaluations done annually in our division). The fellow is expected to attend Liver Transplant Selection Committee when on the hepatology service. The fellow will become familiar with the management of end-stage liver disease and its complications including ascites, variceal bleeding, bacterial peritonitis, hepatic encephalopathy and liver failure. The fellow will become proficient in management of outpatient problems commonly encountered in the end-stage liver disease patient, including bone disease, pruritis, sleep disturbance, depression, metabolic disorders and muscle cramps. As well, the first year fellow will become proficient in the management of more serious complications usually requiring hospitalization including hepatocellular carcinoma, hepatic coma, acute hepatic failure, hepatorenal syndrome, variceal hemorrhage and others. The care of patients listed for liver transplantation is typically a primary duty of the GI/Hepatology Division and the patients are admitted to our service routinely.

### **Basic Procedures**

- Esophagogastroduodenoscopy (minimum of 100)
- Colonoscopy (minimum of 100)
- Conscious sedation (minimum of 100)
- Flexible sigmoidoscopy
- Mucosal biopsy
- Simple polypectomy
- Injection therapy of bleeding lesion
- Coaptive coagulation of bleeding lesion
- Argon beam coagulation
- Esophageal dilation using Maloney and Savary bougies.
- Stricture dilation using through-the-scope balloon
- Paracentesis
- Liver biopsy

The *second-year fellow* is given more responsibility in terms of endoscopic procedures. Larger or more complex colon polyps will be removed. Acute bleeding will be treated by injection, cauterization, banding and sclerosis. A rotation in motility must be completed by the end of the second year. In addition, the second-year fellow becomes more involved in educational activities, especially in attending the internal medicine housestaff morning report and providing lectures to the internal medicine housestaff. The second year fellow is expected to attend Liver Transplant Selection Committee when he/she is on the Hepatology service. He/she is expected to become proficient at abdominal ultrasound determination for paracentesis and liver biopsy and to become independent and fully proficient at abdominal paracentesis and percutaneous liver biopsy. The second year fellow is expected to attend Post-transplant clinic and begin to learn the management of immunosuppression, post-operative complications and post-transplant complications including hypertension, hyperlipidemia, diabetes and renal insufficiency. As well, the second year fellow begins to manage post-transplantation complications requiring hospitalization such as severe allograft rejection, infections, biliary complications and allograft failure.

### **Basic Procedures**

- Esophagogastroduodenoscopy (minimum of 100)
- Colonoscopy (minimum of 100)
- Conscious sedation (minimum of 100)
- Flexible sigmoidoscopy
- Mucosal biopsy
- Simple polypectomy
- Injection therapy of bleeding lesion
- Coaptive coagulation of bleeding lesion
- Argon beam coagulation
- Esophageal dilation using Maloney and Savary bougies
- Stricture dilation using through-the-scope balloon
- Paracentesis
- Liver biopsy
- Pouchoscopy
- Ileoscopy
- Chromoendoscopy

### **Intermediate/Advanced Procedures**

- Large or sessile polyp polypectomy
- Sclerotherapy of esophageal varices
- Endoscopic variceal band ligation
- Percutaneous endoscopic gastrostomy feeding tube placement
- Foreign body removal or retrieval from upper GI tract

### **Interpreting Tests**

- 24-hour esophageal pH study
- Esophageal manometry
- Anorectal manometry
- CT, MRI and U/S of the abdomen

The *third-year fellow* continues to hone his/her skills in managing more complicated gastrointestinal and liver diseases and develops skills in advanced endoscopic procedures. The third-year fellow will give special attention to the performance of ERCP, EUS. Most advanced procedures at Scripps are performed in the afternoon. On all rotations at Scripps the 3<sup>rd</sup> year fellows are encouraged to be available for procedures such as ERCP and EUS. Rotations at outside facilities are encouraged to receive more training in ERCP and endoscopic ultrasound and are mandatory when additional training is needed. In addition, the third-year fellow undertakes more administrative responsibilities such as making the lecture schedule, assigning the rotation schedule for all fellows, and generating the monthly call schedule. The third-year fellow serves as a “chief fellow” to whom the more junior fellows can address grievances or come up with solutions to various problems that arise in terms of interpersonal relationships. The third year fellow is expected to attend and participate in Liver Transplant Selection Committee, including presentation of cases and follow-ups when he or she is on the Hepatology service. The third year fellow is expected to develop proficiency in the care of post liver transplant patients as outlined in the second year curriculum. The third year fellow is expected to manage post-transplantation complications requiring hospitalization such as severe allograft rejection, infections, biliary complications and allograft failure. The fellow may seek UNOS certification if he/she anticipates transplant work in the future. Moreover, the third year fellow should master the skill of becoming a consummate consultant having demonstrated excellence in patient evaluation, on going care, communication with the patient and his/her family and demonstrating skill and proficiency in communicating with referring physicians regarding the patient’s evaluation and management and in providing guidance for further care.

### **Basic Procedures**

- Esophagogastroduodenoscopy (minimum of 100)
- Colonoscopy (minimum of 100)
- Conscious sedation (minimum of 100)
- Flexible sigmoidoscopy
- Mucosal biopsy
- Simple polypectomy
- Injection therapy of bleeding lesion
- Coaptive coagulation of bleeding lesion
- Argon beam coagulation
- Esophageal dilation using Maloney and Savary bougies
- Stricture dilation using through-the-scope balloon
- Paracentesis
- Liver biopsy
- Pouchoscopy
- Ileoscopy
- Chromoendoscopy

### **Intermediate/Advanced Procedures**

- Large or sessile polyp polypectomy
- Sclerotherapy of esophageal varices
- Endoscopic variceal band ligation

- Percutaneous endoscopic gastrostomy feeding tube placement
- Foreign body removal or retrieval from upper GI tract
- Endoscopic ablation (RFA or Cryo) of Barrett's dysplasia

### **Advanced Procedures**

- Large or sessile polyp polypectomy
- Sclerotherapy of esophageal varices
- Endoscopic variceal band ligation
- Percutaneous endoscopic gastrostomy feeding tube placement
- Foreign body removal or retrieval from upper GI tract
- Passage of the side-viewing duodenoscope and intubation of the duodenum with the duodenoscope
- Endoscopic retrograde cholangiopancreatography
- Sphincterotomy
- Biliary stent placement
- Biliary stone removal
- Basic exposure to endoscopic ultrasound in the evaluation of GI disease and tumors
- Deep enteroscopy

### **Interpreting Tests**

- 24-hour esophageal pH study
- Esophageal manometry
- Anorectal manometry
- CT, MRI and U/S of the abdomen
- Cholangiogram
- Endoscopic ultrasound

### **C. Interdisciplinary interactions:**

Fellows interact with a number of different health care providers. On the inpatient service, fellows will be asked to consult on patients by a variety of physicians such as surgeons, internists, cardiologists and intensivists. Fellows participate in the care of patients with physician assistants, nurse practitioners, nurses and nursing assistants. There is contact with registered dietitians in formulating an appropriate nutritive regimen as well as enteral and parenteral nutrition.

Fellows interact with the internal medicine housestaff. Patients can be admitted to the Gastroenterology service by the housestaff and, in such a manner, the fellow serves as the "team leader" along with the medical resident. In addition, house officers often consult the GI fellow and, in that way, there is an opportunity for exchanging ideas with the housestaff.

Fellows attend two internal medicine conferences per week. Fellows will attend one conference each week that is a forum for radiologists, pathologists, general surgeons, transplant surgeons, and gastroenterologists to present and discuss cases. Fellows also

attend the tumor board conference to discuss GI oncology cases in a multi-disciplinary format. Interactions with any other subspecialties and other house officers are facilitated through multidisciplinary conferences and with participation with other health care teams.

#### **D. Didactic conferences:**

Fellows attend a weekly one-hour basic **Pathology Conference** on Fridays at 7:30am given by pathologists Dr. Emma Du and Dr. Fei Bao on basic GI/hepatic histology during July-Sept.

The series of pathology conferences is followed each Friday morning by a **Basic Science Seminar** on Fridays at 7am for the remainder of the academic year.

Fellows attend two weekly clinical conferences where GI cases are presented by the fellows and staff. This **GI Surgery-Radiology-Pathology Conference** on Thursdays at 4:30pm is attended by all faculty of the Gastroenterology division, staff surgeons and visiting surgeons, radiologists (to review pertinent radiologic studies) and pathologists (to review pertinent pathologic slides). GI surgeons present surgical cases at this conference 10-20% of the time and add surgical input on diagnosis and therapy.

Fellows attend a weekly **GI Grand Rounds** on Tuesdays at noon which is attended by all faculty of the Gastroenterology Division. Presentations are given at least 60% of the time by a fellow and 40% of the time by the faculty. Topics include gastrointestinal physiology, pathophysiology, molecular biology, biochemistry, immunology, mechanism of disease, etc.

A forum for reviewing recent articles of interest is held bi-monthly. Both fellows and faculty participate in review and presentation of an original scientific article.

Conference attendance, fellow involvement, and levels of participation are recorded.

#### **E. Nutrition Education:**

EDUCATIONAL PURPOSES Three main parts make up this curriculum:

- A. A core set of lectures given by the fellows and the staff (especially Dr. Fujioka) on nutritional issues
- B. Fellows obtain instruction and experience in the placement of gastrointestinal feeding tubes for patients who cannot take PO nutrition. In the provision of these alternative feeding devices our fellows frequently must prescribe a nutrition regimen and TPN for patients and receive guidance from our inpatient "Nutrition Service". Moreover, our fellows receive extensive instruction and exposure to nutrient assimilation disorders such as inflammatory bowel disease, celiac sprue, and pancreatic insufficiency.
- C. Nutrition rotation: One-month block of intensive education and experience in nutritional disorders and will integrate the skills of our registered dietitians within

the facility. Fellows must complete this block within the first two years. It is combined with the GI surgery and GI radiology rotations.

**TEACHING METHODS:** Mentoring by Dr. Fujioka, and Scripps GI staff along with lecture and practical patient experience.

**DEGREE OF SUPERVISION:** All patient care activities occur under the close supervision of the mentoring attending physicians to the extent that attendings fulfill the newly revised requirements and nutritional issues will be discussed daily

**MIX OF DISEASES AND PATIENTS:** The full spectrum of nutritionally challenged patients. See Core Curriculum for lengthy description.

**INTEGRATED LEARNING:** Mentors will use the clinical encounters and patient and disease mix to integrate teaching regarding all in-hospital and outpatient nutritional issues.

**READING LISTS:** Current ASPEN approved Nutritional Assessment Anthology/Guidelines Work through the ASPEN “exams” for General Nutrition, Parenteral Nutrition, Enteral Nutrition.  
**OTHER EDUCATIONAL RESOURCES:** Library, and core Nutrition Texts.

**METHOD OF EVALUATION:** Fellows will be evaluated informally throughout the rotation by key faculty via the competency based GI fellow evaluation form in MyEvaluations at the end of every month. This evaluation will be formalized in writing every six months with forwarding to the CCC committee.

## **F. GI Surgery rotation:**

**EDUCATIONAL PURPOSES:** To expose the fellows to GI surgical technique with emphasis on colorectal surgery, laparoscopic surgery, and bariatric surgery. Two main parts make up this curriculum:

- A. A core set of lectures given by the fellows and the surgery staff (especially Dr. Weston, Dr. Takata, and Dr. Worsey) on surgical issues.
- B. GI Surgery rotation: One-month block of intensive exposure and experience in Surgery technique including observation in the operating room with Scripps physicians. Fellows must complete this block within the first two years. It is combined with the Nutrition and GI radiology rotations.

**TEACHING METHODS:** Mentoring and OR observation of operations by Drs. Worsey, Dr Weston, or Dr Takata along with lecture and practical patient experience.

**DEGREE OF SUPERVISION:** All patient care activities occur under the close supervision of the mentoring attending physicians.

**MIX OF DISEASES AND PATIENTS:** The full spectrum of adult surgical patients.

**INTEGRATED LEARNING:** Mentors will use the clinical encounters and patient and disease mix to integrate teaching regarding all in-hospital and outpatient surgical issues.

**READING LISTS:** Sleisenger and Fordtran's Gastrointestinal and Liver Disease, 6th Edition; Zakim and Boyer's Hepatology, 3rd Edition, relevant articles from Gastroenterology, Hepatology, American Journal of Gastroenterology, New England Journal of Medicine, Lancet, JAMA, Digestive Disease and Science, Gut; Sivak's Gastrointestinal Endoscopy and core surgical texts per the surgical mentors.

**METHOD OF EVALUATION:** Fellows will be evaluated informally throughout the rotation by key faculty via the competency based GI fellow evaluation form in MyEvaluations at the end of every month. This evaluation will be formalized in writing every six months with forwarding to the CCC committee.

## **G. GI Radiology Rotation:**

**EDUCATIONAL PURPOSES:** To expose the fellows to GI specific radiographs and techniques in various modalities including plain films, ultrasound, abdominal CT and MR, and MRCP.

Three main parts make up this curriculum:

- A. A core set of lectures given by the fellows and the Scripps GI staff on imaging tests and studies.
- B. The combined GI Pathology Surgery and Radiology conference every Thursday at 4:30pm. In this forum, all pertinent studies for the patients are reviewed by expert radiology staff.
- C. GI Radiology rotation: One-month block of intensive exposure and experience in reading all GI related imaging modalities including but not limited to plain films, ultrasound, abdominal CT and MR, and MRCP. Fellows must complete this block within the first two years. It is combined with the Nutrition and GI surgery rotations.

**TEACHING METHODS:** Mentoring and direct reading of images with experienced GI or Radiology staff.

**DEGREE OF SUPERVISION:** All didactic and image interpretation activities occur under the close supervision of the mentoring attending physicians.

**MIX OF DISEASES AND PATIENTS:** The full spectrum of adult patients.

**INTEGRATED LEARNING:** Mentors will use the images along with clinical data and patient information to integrate teaching regarding the disease processes.

**READING LISTS:** Sleisenger and Fordtran's Gastrointestinal and Liver Disease, 6th Edition; Zakim and Boyer's Hepatology, 3rd Edition, relevant articles from Gastroenterology, Hepatology, American Journal of Gastroenterology, New England Journal of Medicine, Lancet, JAMA, Digestive Disease and Science, Gut; Sivak's Gastrointestinal Endoscopy and core radiology texts per the radiology mentors.



**METHOD OF EVALUATION:** Fellows will be evaluated informally throughout the rotation by key faculty via the competency based GI fellow evaluation form in MyEvaluations at the end of every month. This evaluation will be formalized in writing every six months with forwarding to the CCC committee.

## **H. Motility Rotation:**

Currently designed as a one month experience during the first two years, this rotation trains the fellow to understand various GI motility disorders. The fellows are assigned to work with Dr. Fouad Moawad, the Director of Motility and Dr. Masood Mansour. Their offices and lab are located at Anderson Medical Building in LaJolla. In addition, fellows will learn the indication, complications, and interpretation of the varied GI motility tests including but not limited to esophageal and anal manometry, Sphincter of Oddi manometry, gastric emptying tests, and biliary motility tests. The fellows will perform complete gastrointestinal assessment and management plans on both outpatients and inpatients with the full spectrum of acute and chronic gastrointestinal motility problems. The fellows are all supervised by the assigned attending for the week.

**EDUCATIONAL PURPOSE:** 1. To gain experience in taking care of patients with motility disorders of the GI tract. 2. To understand the role of the various motility tests that are available for investigating patients. 3. To learn proper interpretation of the various motility tests.

**TEACHING METHODS:** Mentoring by motility trained GI attendings; hands on training for motility procedures; small group discussion; one on one with attendings; seminars, lectures, teaching rounds, and conferences as in the regular teaching schedule.

**DEGREE OF SUPERVISION:** All patient care activities occur under the close supervision of the mentoring attending physicians. All procedures are performed in the presence of the mentor and histories, physicals, and laboratory interpretation are checked by the mentor.

**MIX OF DISEASES AND PATIENTS:** The full spectrum of patients with motility diseases of the gastrointestinal tract and biliary tract will be seen. Encountered diseases include GERD, esophageal motility disorders, achalasia, non-ulcer dyspepsia, gastroparesis, antral-duodenal dyskinesia, irritable bowel syndrome, SOD, biliary dyskinesia, chronic constipation, intestinal pseudo-obstruction, ano-rectal motility problems, and the full range of motility disorders according to the Chicago Classification.

**READING LISTS:** Sleisenger and Fordtran's Gastrointestinal and Liver Disease, 6th Edition; Zakim and Boyer's Hepatology, 3rd Edition, relevant articles from Gastroenterology, Hepatology, American Journal of Gastroenterology, New England Journal of Medicine, Lancet, JAMA, Digestive Disease and Science, Gut; Sivak's Gastrointestinal Endoscopy.

**PATHOLOGICAL MATERIAL:** Not applicable.

**OTHER EDUCATIONAL RESOURCES:** Teaching collections and Atlas' for interpretation of endoscopic and pathologic material, mandatory conferences as listed below.

**METHOD OF EVALUATION:** Fellows will be evaluated informally throughout the rotation by key faculty via the competency based GI fellow evaluation form in MyEvaluations at the end of every month. This evaluation will be formalized in writing every six months with forwarding to the CCC committee.

## **I. Scripps Mercy Hospital rotation: Community and HIV medicine:**

**EDUCATIONAL PURPOSES:** These are one month rotations specifically intended to practice general gastroenterology (procedures and consultation) at a busy Inner-city Community Hospital. Additionally, fellows will gain experience in Systems-based practice and gain experience with issues such as coding, cost containment, practice organization and design, and other related issues.

- 1) All inpatient and ER consultation (7-10), procedures 5-6/day
- 2) Patients assigned from ER, surgery or medicine
- 3) Interaction with supervisory staff is ongoing and continuous.

**LEARNING OBJECTIVES:** 1. To learn to diagnose and treat gastrointestinal and hepatic diseases in the context of a busy inner city, community hospital and outpatient clinic. 2. To master basic gastroenterologic procedures including upper gastrointestinal endoscopy, biopsy, injection/heat probe/band ligation therapy, esophageal dilation, and liver biopsy.

**TEACHING METHODS:** Mentoring by GI faculty; hands on training for the above procedures; small group discussion; one on one with attendings; seminars, lectures, teaching rounds, and conferences as in the regular teaching schedule

**DEGREE OF SUPERVISION:** All patient care activities occur under the close supervision of the mentoring attending physicians. All procedures are performed in the presence of the mentor and histories, physicals, and laboratory interpretation are checked by the mentor. The point of contact will be Dr. Sajiv Chandradas.

**MIX OF DISEASES AND PATIENTS:** The full spectrum of patients with diseases of the gastrointestinal tract, liver, biliary tract, and pancreas. Encountered diseases include GERD, esophageal motility disorders, achalasia, peptic stricture, esophageal cancer, Barrett's esophagus, caustic ingestion, foreign bodies, gastric ulcer, gastric cancer, H. pylori gastritis, NSAID gastropathy, upper gastrointestinal bleeding, metaplastic atrophic gastritis, pernicious anemia, duodenal ulcer, gastrinoma, neuroendocrine tumors, small bowel tumors, malabsorption syndrome, celiac sprue, AIDS enteropathy, parasitic infections, Whipple's disease, intestinal lymphoma, surgical abdomen, bowel obstruction, inflammatory bowel disease, irritable bowel syndrome, colitis, vascular diseases of the bowel, angiodysplasia, diverticulosis, lower gastrointestinal bleeding, colon cancer, peri-anal disease, hemorrhoids, fistulae, fissures, acute and chronic pancreatitis, pancreatic cancer, pseudocyst, pancreatic insufficiency, cholangitis, gallstones, bile duct strictures and tumors, sclerosing cholangitis, cirrhosis, acute and chronic hepatitis, viral hepatitis, alcoholic liver disease, hemochromatosis, Wilson's disease, alpha-1-antitrypsin deficiency, liver transplantation, hepatocellular carcinoma, metastatic cancer, liver cysts, benign liver tumors, and others. Patients are seen at all stages of these diseases.

Additionally, there is a large cohort of HIV patients receiving care at Scripps Mercy and the fellows will gain valuable experience caring for these patients.

**INTEGRATED LEARNING:** Mentors and will use the clinical encounters and patient and disease mix to integrate teaching regarding pre-procedure assessment, indications and contraindications, techniques of procedure, data interpretation, follow-up, quality assurance, cost effectiveness, outcomes, alternative therapy, medical ethics, medical legal issues, and professionalism.

**READING LISTS:** Sleisenger and Fordtran's Gastrointestinal and Liver Disease, 6th Edition; Zakim and Boyer's Hepatology, 3rd Edition, relevant articles from Gastroenterology, Hepatology, American Journal of Gastroenterology, New England Journal of Medicine, Lancet, JAMA, Digestive Disease and Science, Gut; Sivak's Gastrointestinal Endoscopy.

**METHOD OF EVALUATION:** Fellows will be evaluated informally throughout the rotation by key faculty via the competency based GI fellow evaluation form in MyEvaluations at the end of every month. This evaluation will be formalized in writing every six months with forwarding to the CCC committee.

## **J. Research Experience:**

**EDUCATIONAL PURPOSE:** Future gastroenterologists need to be familiar with research principles and methods. Continued progress in prevention, diagnosis and treatment of gastrointestinal disorders requires the elucidation of biologic mechanisms, natural history of disease and even outcome based measures. The fellows must become familiar with the three levels of research: the scholarship of application, the scholarship of dissemination, and the scholarship of discovery.

### **LEARNING OBJECTIVES**

#### **A. Basic research principles:**

- 1) Identifying the research question
- 2) formulation of a working hypothesis
- 3) study design
- 4) biostatistics
- 5) understanding of the basic techniques in cellular and molecular biology
- 6) practical experience in critical analysis of current literature
- 7) use of computers in medicine
- 8) scientific writing and presentation
- 9) research proposals and presentation to institutional review boards
- 10) Understanding cost effectiveness, quality of life models

### **REQUIREMENTS**

In order to successfully complete the program, each fellow must complete an original study which is finalized in a manuscript considered suitable for publication by the PD. In addition, it is expected that fellows will complete more than one study, one or more case reports, and several abstracts.

## CURRICULUM: Scripps Core Curriculum

### TEACHING METHODS:

- a. Research training takes place during all years of training. Research conferences occur monthly and consist of journal club, core lecture series, presentations of fellow and staff research results, and miscellaneous enrichments. Multiple opportunities for the research experience are available in the clinical and laboratory settings, including translational research with the prestigious Scripps Research Institute.
- b. Throughout the year lectures are given on epidemiology, outcomes, and research techniques. Attendance is mandatory for fellows.
- c. Research Updates given during the Friday AM Core Curriculum Conference or during the Tuesday Noon Academic session, will allow presentation of data, review of current active protocols, development of new research questions as well as acknowledgement of recently published/accepted projects.

**DEGREE OF SUPERVISION:** All GI and Hepatology staff will serve as mentors and supervise research. The program is affiliated with a world-class research operation in The Scripps Research Institute, Sanford Burnham and MD Anderson, with ample access to data processors, statisticians, and other needed tools are available.

**METHODS OF EVALUATION:** Each fellow's research and scholarly activity will be reviewed regularly by their research mentors, by the division at the Research Updates, and by the CCC committee every 6 months.

### **K. Continuing medical education and society memberships:**

In addition to participating in the organized didactic conferences established within the fellowship program, it is also strongly encouraged that all fellows become members of the San Diego GI Society, American Gastroenterologic Association, American Association for the Study of Liver Diseases, American Society for Gastrointestinal Endoscopy, and the Crohn's and Colitis Foundation. Participation in the continuing medical education activities of these professional organizations helps foster the standards of professionalism and augment the process of life-long learning. At the national meetings, the fellows have exposure to state of the art clinical and scientific sessions as well as the opportunity to develop clinical and teaching skills. There is exposure to the leaders in gastroenterology and the opportunity to interact with other trainees. These meetings are extremely valuable in developing the highest level of understanding of gastroenterology and establishing a pattern of life-long learning. Membership in these societies offers many benefits, educational materials, access to journals, and discounts to meetings.

### **L. Experience in developing teaching skills:**

The program provides an environment for fellows which fosters and highly regards the activity of teaching. This includes the education of the internal medicine residents who are asking for inpatient consults and who are rotating through gastroenterology. There is the

opportunity to conduct “fellowship rounds” one day per week and teach the residents common and/or rare gastroenterologic cases and bring them to a higher level of recognition of diseases related to the digestive tract. This is an important part of their preparation for internal medicine boards. Fellows are also asked to teach medical students who have chosen to do an elective clerkship in gastroenterology. By means of consultations, personal interactions and conferences, the fellows are expected to educate the physicians and other allied health personnel in the group. They also have a responsibility to educate the patients who are under their care. Development of these skills requires the fellow to receive instruction and feedback in counseling and communication techniques. Most of this is conducted through personal efforts of the attending staff supplemented with relevant conferences. There is institutional support for discussions of cultural, social, behavioral and economic issues such as confidentiality of information and indications for life support systems.

## **M. Pediatrics:**

**EDUCATIONAL PURPOSE:** This one month elective rotation will expose the GI fellow to the issues of basic outpatient pediatric disease. It is not intended to substitute for a Pediatric Gastroenterology Fellowship, or to achieve competence in pediatric endoscopy. This has evolved into a subspecialty of pediatrics. Occasionally, especially in underserved areas, the adult gastroenterologist may be consulted on a pediatric patient or need to provide emergency care.

### **LEARNING OBJECTIVES:**

- A. GERD
- B. Recurrent abdominal pain
- C. Defecation disorders
- D. Endoscopy in the pediatric patient
- E. Malabsorption syndromes, Celiac Sprue
- F. Inflammatory Bowel Disease
- G. Cystic fibrosis
- H. Metabolic Liver Diseases and Neonatal Hepatobiliary Disease
- I. Gastrointestinal bleeding
- J. Adolescent issues

**TEACHING METHOD:** A one-month rotation at Rady’s Children’s Hospital. This will be offered in the latter half of the second year or first half of the third year of fellowship

**DEGREE OF SUPERVISION:** Joel Lavine, MD, PhD will supervise the clinical activities

**MIX OF DISEASES/PATIENTS:** The above listed pathologies, to include both hollow gut as well as hepatic diseases, will be seen.

**TYPES OF CLINICAL ENCOUNTER/PROCEDURES:** outpatient consultation with exposure to endoscopy.

READING LIST: per Dr. Lavine

**METHODS OF EVALUATION:** Fellows will be evaluated informally throughout the rotation by Dr. Lavine via the competency based GI fellow evaluation form in MyEvaluations at the end of every month. This evaluation will be formalized in writing every six months with forwarding to the CCC committee.

## **N. Advanced Endoscopy Rotation:**

**EDUCATIONAL PURPOSES:** To further develop the endoscopy skills of fellows with focus on advanced endoscopic procedures, particularly ERCP and EUS. Fellows will be exposed to other procedures based on availability, including capsule endoscopy, variceal banding, enteroscopy, cryoablation therapy, endoscopic mucosal resection and cholangioscopy. This rotation is designed for second and third year fellows who are interested in advanced endoscopy and who have demonstrated technical competency in basic endoscopic techniques.

To maximize the availability of advanced procedures, all efforts should be made to schedule this rotation when all other second and third year fellows who are also interested in advanced endoscopy are on away rotations. The priority during the rotation will be to participate in any advanced procedures with Drs Coyle, Kuldau, Hunt, and Skinner throughout the week. Fellows will be responsible for reviewing the weekly outpatient schedule, as well as the daily inpatient schedule to stay informed of any upcoming advanced procedures. When possible, they will familiarize themselves with patients in the clinic or inpatient setting prior to the procedure. At the least, fellows must review the patient chart, interpret the relevant lab values and radiologic imaging, and discuss the case with the faculty prior to the procedure.

Fellows will be expected to becoming familiar with the indications, contraindications, complications, techniques and interpretation of various advanced endoscopic procedures. Fellows will learn to formulate diagnostic and therapeutic plans for patients with complicated gastrointestinal and biliary diseases. They will be responsible for the management and follow-up of patients after advanced procedures. Fellows will also be expected to manage patients through a multi-disciplinary approach, collaborating with the surgery, radiology and pathology services.

When no advanced procedures are available, fellows will continue to develop their endoscopic skills in basic procedures (diagnostic and therapeutic esophagogastroduodenoscopy and colonoscopy), see clinic patients with available faculty (Coyle, Kuldau, Hunt, Skinner), or conduct research.

### **Procedures:**

Endoscopic retrograde cholangiopancreatography  
    Biliary stone removal  
    Lithotripsy  
    Sphincterotomy

- Biliary balloon dilation
- Biliary stent placement
- Biliary biopsies and brushing
- Cholangioscopy
- Pancreatic stent placement
- Endoscopic ultrasound
  - Fine needle aspiration
  - Cyst drainage
- Sclerotherapy of esophageal varices
- Endoscopic variceal band ligation
- Percutaneous endoscopic gastrostomy feeding tube placement
- Foreign body removal or retrieval from upper GI tract
- Esophageal dilation using Maloney and Savary bougies
- Stricture dilation using through-the-scope balloon
- Esophageal and colonic stenting
- Argon beam coagulation
- Botox injection for achalasia
- Cryotherapy ablation
- Endoscopic mucosal resection
- Capsule endoscopy
- Enteroscopy

**TEACHING METHODS:** Mentoring by GI faculty, primarily those with experience in advanced endoscopy (Coyle, Kuldau, Hunt, and Skinner); one on one with attendings; seminars, lectures, teaching rounds, and conferences

Fellows will be expected to read about the various advanced procedures to familiarize themselves with instruments, indications, techniques and complications. Basic fluoroscopy training will be required prior to performing ERCP. Fellows will also be required to present at the Combined San Diego Advanced Endoscopy Conference at UCSD at least one time during the academic year.

**DEGREE OF SUPERVISION:** All patient care activities occur under the close supervision of the mentoring attending physicians. All procedures will be directly supervised by the attending physician.

**MIX OF DISEASES AND PATIENTS:** The full spectrum of adult patients, with an emphasis on those with needs addressed by advanced diagnostic and therapeutic endoscopy. Encountered diseases include but are not limited to choledocholithiasis, ascending cholangitis, cholangiocarcinoma, biliary strictures, sclerosing cholangitis, ampullary neoplasia, choledochal cysts, pancreatic benign and malignant lesions, pancreatic cysts and pseudocysts, hepatic benign and malignant lesions, gastrointestinal submucosal lesions, gastric antral vascular ectasia, esophageal and gastric carcinoma, esophageal and colonic strictures, peptic strictures, lung cancer staging, paraesophageal and mediastinal pathology, Barrett's esophagus with dysplasia, variceal hemorrhage, foreign body ingestion, food impaction, achalasia, small bowel tumors, intestinal lymphoma, and complications post-liver transplantation.

**INTEGRATED LEARNING:** Attending physicians will use the clinical encounters and patient and disease mix to integrate teaching regarding pre-procedure assessment, indications and contraindications, techniques of procedure, data interpretation, follow-up, quality assurance, cost effectiveness, outcomes, alternative therapy, medical ethics, medical legal issues, and professionalism.

**READING LISTS:** Sleisenger and Fordtran's Gastrointestinal and Liver Disease, 6th Edition; relevant articles from Gastroenterology, Hepatology, American Journal of Gastroenterology, New England Journal of Medicine, Lancet, JAMA, Digestive Disease and Science, Gut; Sivak's Gastrointestinal Endoscopy; Johnson and Imrie's Pancreatic Disease; Dominguez-Munoz's Clinical Pancreatology; Rosch and Classen's Gastroenterologic Endosonography; Hawes and Focken's Endosonography; Cotton and Leung's Advanced Digestive Endoscopy: ERCP.

**METHOD OF EVALUATION:** Fellows will be evaluated informally throughout the rotation by key faculty and via the competency based GI fellow evaluation form in MyEvaluations at the end of every month. Evaluation will include knowledge competency and procedural competency using the guidelines established by the American Gastroenterology Association.

## **O. IBD Rotation:**

**Educational Purposes/Objectives:** To give the Gastroenterology/Hepatology fellow the opportunity to learn more about Inflammatory Bowel Diseases and become more comfortable managing and understanding this special group of patients from a multidisciplinary standpoint.

**Spectrum of diseases and patients:** The fellow will see adult patients of varying ages with Ulcerative colitis, Crohn's disease, and Indeterminate colitis. The fellow may also see patients with cuffitis, pouchitis, drug/chemotherapy-induced colitis, diversion colitis, microscopic colitis, autoimmune enteropathy, eosinophilic esophagitis, celiac disease, eosinophilic gastroenteritis.

**Course Mentor/Evaluation Method:** Dr. Gauree Konijeti is the head of the Inflammatory Bowel Disease Program at Scripps. Dr. Konijeti is charged with the fellow's evaluation at the end of the month and should periodically touch base with the fellow on the IBD rotation to ensure the educational objectives are being met. Fellows can be evaluated informally throughout the rotation by key faculty and via the competency based GI fellow evaluation form in MyEvaluations at the end of the month. Evaluation will include knowledge competency and procedural competency using the guidelines established by the American Gastroenterology Association, ACG, and Crohn's and Colitis Foundation.

**Degree of supervision:** The fellow will be observed and supervised in all clinical settings by the Dr. Konijeti or other health care personnel they are working with on a given day.

**Integrated learning:** The fellow will be exposed to various aspects of IBD management and treatment including medical, endoscopic, surgical, nutritional, and education. This will help the fellow appreciate the multifaceted approach that can be involved in managing these types of patients.



Teaching methods: Mentoring by GI faculty (Dr. Konijeti) or other health care providers, primarily those with experience in IBD (Coyle, Kuldau, Tsai, Singh, Nodurft); seminars; lectures; teaching rounds; and conferences.

Overview: Fellows should be exposed to surgical, medical (in the office and endoscopy lab), and nutritional management of patients with IBD. Additionally, the fellow will be expected to be involved in educating IBD patients and/or developing techniques to better manage IBD patients in the clinic. The fellow will be expected to give one 60 minute presentation during a division didactic session on an IBD related topic.

#### Surgical Aspect:

The fellow will be responsible for setting up an observership with a Colorectal surgeon to observe surgeries or exams under anesthesia on IBD patients or to see those patients in clinic with the surgeon. Suggestions would include Dr. Jon Worsey or Dr. Lynn Weston. The fellow will report the dates of the planned time to the course mentor. This can also be done during the Surgery/Nutrition/Radiology Rotation.

#### Medical Aspect:

The fellow will be expected to see all of the IBD patients in a given day (or half day, depending on the schedule). The same goes for endoscopies (including capsule endoscopies on IBD patients). During the selected days, the fellow should be involved in the procedures of every IBD patient. Fellows also receive experience in managing IBD patients in the hospital setting during their inpatient rotations.

Procedures on patients with IBD can include, but are not limited to:

EGD; Colonoscopy (possibly including stricture dilations, dysplasia surveillance with or without chromoendoscopy); Ileoscopy; Pouchoscopy; Enteroscopy; Wireless Capsule Endoscopy interpretation

#### Nutritional/Educational/Management Aspect:

The fellow will be required to learn about nutritional management of IBD patients, spending time educating IBD patients or helping develop algorithms or systems to better manage IBD patients at Scripps Clinic. Prior to the beginning of the month, the fellow will be responsible for contacting the Nutritionists at Scripps Clinic to see if they have any IBD patients coming in and interact with the patients in this setting.

#### Didactic Requirement:

The fellow will be required to give a 60 minute talk during the month on any IBD related topic. This topic should be discussed with the course mentor prior to preparing the talk. Additionally, although not required, the fellow is encouraged to recruit new guest speakers for noon-time conferences to talk to the division as a group about IBD related topics. This should be coordinated in conjunction with the fellow preparing the didactics schedule.

Reading lists/Learning Tools: GI textbooks, GI and IBD journals, online journals, Crohn's and Colitis Foundation website.