

**DIVISION OF PEDIATRIC GASTROENTEROLOGY
HEPATOLOGY AND NUTRITION**

UNIVERSITY OF FLORIDA

GASTROENTEROLOGY/ HEPATOLOGY FELLOW MANUAL

Policy for Supervision of Fellows, Monitoring of Resident Responsibilities and Faculty Responsibility for Supervision

I. PROGRAM GOALS AND OBJECTIVES

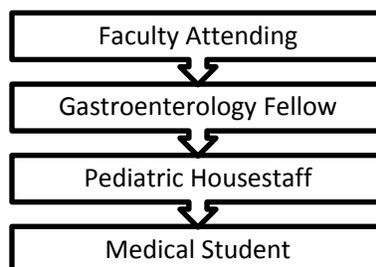
The Division of Pediatric Gastroenterology and Hepatology at the University of Florida is committed to training individuals to become independent and competent practitioners capable of providing the highest level of care. The program is designed to ensure that fellows are trained to diagnose and manage gastrointestinal, pancreatic, and hepatobiliary disorders in infants, children and adolescents. Individuals who complete this training are expected to proficiently perform gastroenterologic procedures including diagnostic and therapeutic upper panendoscopy, colonoscopy (including polypectomy), flexible sigmoidoscopy, percutaneous liver biopsy, small bowel and rectal biopsy, establishment and maintenance of patients with enteral and parenteral nutrition, paracentesis, esophageal pH monitoring, and placement of percutaneous gastrostomy (in conjunction with Pediatric Surgery), foreign body removal, esophageal dilation, and endoscopic placement of feeding tubes.

The program recognizes the critical importance of scholarly activities in the development of a competent gastroenterologist. As part of their training subspecialty residents will be expected to actively participate in research, involving either basic or clinical work.

II. EDUCATIONAL PROGRAM

In general, the first year of training focuses on developing clinical judgment and procedural skills. Potential research projects and preliminary research work is also explored during this time, based on the fellow's interests and goals. Scholarly activities are emphasized during the second and third years of training. A Scholarship Oversight Committee, in conjunction with the trainee, the mentor, and the program director will determine whether a specific research activity is appropriate to meet the ABP/RRC guidelines for scholarly activity. The research plan is formalized and work towards its completion is begun in the second year. To optimize this phase of the training, the clinical duties are flexible and can be modified to allow for individual goals, interests and progress.

Programmatic supervision lines are well defined (See box below). The subspecialty residents in pediatric gastroenterology are always supervised by faculty attending. However, the fellow's experience includes graded responsibility for patient care in the outpatient and inpatient clinical setting. It is the fellow's responsibility to educate the resident about the patients' condition, plan for overall care of the patient and function as the gastroenterology/hepatology consultant. Residents and fellows impart knowledge to each other, especially to younger colleagues including medical students.



Learning Objectives for the First year Fellow (PL-4)

At the completion of the first year rotation, the fellow should be able to:

1. Evaluate and manage common pediatric gastroenterologic and hepatobiliary signs and symptoms, related to the following:
 - a. Abdominal pain
 - b. Vomiting
 - c. Acute and chronic diarrhea
 - d. Constipation and encopresis
 - e. Hematemesis
 - f. Rectal bleeding
 - g. Failure to thrive
 - h. Feeding and swallowing difficulties
 - i. Abdominal masses
 - j. Jaundice
 - k. Abnormal liver tests
 - l. Coagulopathy
 - m. Abnormal pancreatic tests
 - n. Pancreatitis
2. Perform a competent gastroenterology and hepatology history and physical examination
3. Prepare accurate inpatient progress and outpatient clinic notes
4. Dictate outpatient clinic notes in a timely fashion
5. Describe indications for the following procedures:
 - a. Esophagogastroduodenoscopy (upper endoscopy)
 - b. Flexible sigmoidoscopy and colonoscopy
 - c. Endoscopic retrograde pancreato-cholangiography (ERCP)
 - d. Esophageal pH monitoring
 - e. Esophageal and anorectal manometry
 - f. Rectal suction biopsy
 - g. Liver biopsy
 - h. Paracentesis
 - i. Pancreatic stimulation test
 - j. Breath hydrogen analysis
 - k. Placement of percutaneous gastrostomy tube
 - l. Removal of foreign bodies from esophagus and gastrointestinal tract
 - m. Dilation of esophagus
 - n. Endoscopic placement of feeding tubes
 - o. Small bowel enteroscopy
 - p. Capsule endoscopy
6. Describe indications for the following ancillary studies:
 - a. Gastric emptying study
 - b. Barium swallow
 - c. Upper gastrointestinal contrast study
 - d. Abdominal ultrasound
 - e. Abdominal computerized tomography and magnetic resonance imaging
 - f. Magnetic resonance cholangiopancreatography (MRCP)
 - g. Magnetic resonance enterography
7. Diagnose and treat diseases of the upper gastrointestinal tract including gastroesophageal reflux disease, acid peptic disease and dysmotility syndromes

8. Identify complications related to diseases of the upper gastrointestinal tract and hepatobiliary system
9. Diagnose and treat infections of the digestive and biliary tract
10. Diagnose and manage celiac disease and other malabsorption syndromes
11. Diagnose and treat disorders of the lower gastrointestinal tract including acute and chronic colitis, polyps, and Hirschsprung's disease
12. Diagnose and treat inflammatory bowel disease
13. Recognize medical and surgical complications of IBD and manage with appropriate consultants
14. Identify complications related to diseases of the lower gastrointestinal tract
15. Describe indications for enteral and parenteral nutrition
16. Establish and maintain patients on enteral and parenteral nutrition
17. Identify and treat complications related to enteral and parenteral nutrition
18. Diagnose and manage acute and chronic liver failure and its complications
19. Describe indications for intestinal transplantation
20. Describe indications for liver transplantation
21. Evaluate and manage uncomplicated patients after liver transplantation
22. Understand and manage immunosuppression after liver transplant
23. Identify and manage (under appropriate consultants) chronic complications after liver transplant including hypertension, renal dysfunction, chronic allograft rejection and lymphoproliferative disorder
24. Manage acute and chronic pancreatitis
25. Perform procedures with proficiency (see number 5, above)
26. Recognize and treat complications of the procedures listed (see number 5, above)
27. Diagnose severe gastrointestinal bleeding and perform the following specialized therapeutic procedures:
 - a. Banding and sclerosis of esophageal varices
 - b. Heater probe and injection of ulcer or vascular malformation
 - c. Polypectomy
 - d. Endoscopic clip placement
28. Competently interpret the following specialized tests:
 - a. Prolonged esophageal pH study
 - b. Esophageal and anorectal manometry
29. Manage high-risk transports in conjunction with an attending physician
30. Identify area of academic interest and research mentor
31. Initiate preliminary research activity and formalize research plan
32. Identify a Scholarship Oversight Committee

Learning Objectives for the Second Year Fellow (PL-5)

Scholarly activities are emphasized during the second and third years of training. The research plan is formalized and work towards its completion is begun in the second year. To optimize this phase of the training, the clinical duties of the fellow are limited during this period of time. At the completion of this year, the fellow should be able to:

1. Meet all of the learning objectives for the first year fellow
2. Present research findings at local meetings including Pediatric Department Science Day
3. Explore intramural and extramural research funding in consultation with research mentor

Learning Objectives for the Third Year Fellow (PL-6)

At the completion of the third year of fellowship, the fellow should be able to:

1. Meet all of the learning objectives of the first and second year fellows
2. Diagnose and manage patients with severe, complicated gastrointestinal, hepatic disorders and pancreatic disorders, including growth failure, inflammatory bowel disease, post-liver transplant and acute and chronic pancreatitis.
3. Proficiently complete the following specialized therapeutic procedures:
 - a. Banding and sclerosis of esophageal varices
 - b. Heater probe and injection of ulcer and vascular malformation
 - c. Polypectomy
 - d. Percutaneous gastrostomy (in conjunction with Pediatric Surgery)
 - e. Endoscopic clip placement
4. Complete research project including submission of abstract(s) and manuscript or research progress report.
5. Apply for research funding, depending on individual goals.

Recommended Readings

Walker WA, Goulet OK, Kleinman RE, Sanderson IR, Sherman PM, Shneider BL (Eds). *Gastrointestinal Disease: Pathophysiology, Diagnoses, and Management*. B.C. Decker, 2008.

Feldman M, Scharschmidt BF, Sleisenger M, Zorab R (Eds.). *Fortran's Gastrointestinal and Liver Disease*. W.B. Saunders Company, 2006.

Suchy FJ, Sokol RJ, Balistreri WF (Eds). *Liver Disease in Children*. Lippincott, Williams & Wilkins, 2007.

On-line literature searches: eg., via Pubmed, MDLinx and Up-To-Date.

A. Inpatient Experience

The first year fellow is on the inpatient service for eleven months. The fellow is always on the clinical service with a faculty attending. The fellow and attending evaluate all patients on the gastroenterology (GI) and hepatology (Liver) inpatient services during rounds each morning. As long as the patient is not acutely ill, consultations are

completed later in the day, after the fellow has had an opportunity to independently assess the patient. The fellow then communicates the plan to the physicians who requested the consultation. During rounds the fellow presents each patient to the attending and formulates the diagnostic and therapeutic plans. The fellow also is the person who communicates with the pediatric residents and medical students. The fellow is responsible for all patients admitted to the pediatric GI and Liver inpatient services in addition to the pediatric and neonatal intensive care units. In these latter settings, the subspecialty fellow communicates with the Critical Care Medicine and Neonatal Unit physicians after discussion of the acutely ill patient with the gastroenterology/hepatology faculty.

The third year fellow, on the clinical rotation for one month of that year, assumes greater responsibility for the inpatient service. However, the fellow makes formal rounds with the faculty attending on a daily basis including review of consults. Also, the faculty gastroenterologist/hepatologist attends all procedures with the third year fellow (as is done during the PL-4 and PL-5 years). The greater independence given to the third year fellow involves all patient care activities in addition to supervision and teaching of residents and medical students.

B. Outpatient Experience

The fellow attends the pediatric gastroenterology clinic for one session per week. The fellow has the opportunity to select new and return patients who have a variety of gastroenterologic, hepatic and pancreatic diseases. The fellow will follow these patients for the duration of the training. It is the responsibility of the fellow to formulate a plan of evaluation and care, which is discussed with the faculty attending. The fellow also has the responsibility to interact with the ancillary staff that works with the members of the gastroenterology training program, including Nurse Clinicians, Nurse Practitioners, Physician Assistants, Pediatric Nutritionists, Clinical Pharmacists, and Pediatric Social Workers.

In addition to the fellows Continuity Care Clinics, second and third year fellows are required to attend an additional three (3) half day clinics each for both the Hepatobiliary Clinic (held generally every Wednesday) or Liver Transplant Clinic (held generally every Monday) and the Inflammatory Bowel Disease Clinic (held generally every Thursday), every six (6) months. These clinic dates may be selected by the individual fellow as it coincides with their schedule.

C. Research Program

Research training is an important component of the pediatric gastroenterology/hepatology fellowship program. The fellow is expected to identify an area of research interest by the end of the first year. The program director and other faculty members then identify a mentor and Scholarship Oversight Committee (SOC) to assist the fellow in the creation of a structured research experience. Research progress is monitored by the SOC. It is expected that the project(s) will be completed by the middle of the third

year of training in order to analyze data and prepare manuscript(s). It is also expected that abstracts are written and submitted to national scientific meetings for peer review at the beginning of the third year of fellowship training.

The Department of Pediatrics at the University of Florida ensures a meaningful research experience for trainees via the following special programs:

1. Faculty Research Seminar: This department seminar occurs once each month. Second/ third year fellows are expected to attend, and present research in progress.
2. Pediatric Science Day: This research day occurs once each year. Junior faculty, fellows, residents and medical students present research material in the same abstract form as used at national scientific meetings.
3. Visiting Professor Program: An outside reviewer evaluates the fellow's research once each year. This is a pediatric scientist who is invited for two days to assess the research of all completed data or work-in-progress of all subspecialty trainees. The Visiting Professor Program is an opportunity for the subspecialty fellows to learn about each other's research and to critically evaluate the investigative efforts of their peers.
4. Fellows in pediatric GI/Liver are expected to attend a core series offered through the Department of Pediatrics. This interdisciplinary core lecture series is taught by members of the College of Medicine in order to address important research issues including study design and methodology, data analysis, statistical methods, grant writing, and ethical issues. Subspecialty fellows sometime elect to formally matriculate in graduate courses such as molecular biology and pharmacogenomics depending on their research area of interest. They occasionally participate in the University of Florida's Master's Degree program, especially the Advanced Postgraduate Program in Clinical Investigation.
5. Fellows Conference: Present ongoing data

D. Conferences

The subspecialty trainee is expected to attend the following divisional and departmental conferences:

1. Pediatric GI/Liver Pathology Conference (Thursday, 3:00 PM): the various biopsy samples of patients under the care of the GI and Liver services are reviewed.
2. Pediatric GI/Liver Core Curriculum lecture series and Journal Club (Tuesday, 12:00 Noon): Faculty and Fellows present selected topics and current publications at this divisional conference. The appropriateness of study design, statistical methods, as well as clinical applicability are emphasized in the Journal Club.
3. Pediatric Grand Rounds (Thursday, 8:00 AM): This weekly departmental conference reviews "up to date" advances in Pediatrics. Faculty members of the

- various subspecialty programs (including Gastroenterology/Hepatology) participate on a rotating basis. Residents and subspecialty fellows occasionally present at this conference.
4. Pediatric Faculty and Fellows Research Conference (Tuesday, 8:00 AM): This is a weekly conference where Pediatric faculty and fellows present current research projects to each other on a rotating basis.

III. Evaluation

The fellows are informally evaluated each day through contact with the attending faculty. This applies to expected competencies and research activities. The competencies include patient care, medical knowledge, interpersonal and communication skills, practice-based learning, professionalism and systems-based practice. Formal on-line evaluation occurs at least twice each year by the faculty; this is followed by program director review and discussion of the evaluation with the fellow. The Gastroenterology fellowship program director documents and maintains written records of the evaluations.

Subspecialty fellows have an opportunity to read and respond to their evaluations. This is the most effective when the program director, research mentor and the fellow meet to discuss progress and problems.

IV. Service Duties

The Gastroenterology fellows are on call during the day with the attending during months on the clinical gastroenterology/hepatology services. In addition, the fellow is on call every fourth weekend. This involves evaluation of new admissions at night and making rounds on the weekend with the attending. The fellows do not stay in the hospital (on-site) overnight, but take call from home. The weekend schedule allows the trainee at least one day in seven away from the program duties. When necessary, the fellows have a 10-hour period between daily duty periods and after late in-house call.

The division's hand over process is via both written and verbal method. The outgoing provider(s) either provide a typed summary in EPIC or Outlook of each patient on service for the incoming provider(s), or they will verbally discuss each patient face to face or by phone call. This process is performed every time there is a change in provider(s).

In an effort to educate and prevent fatigue errors, every faculty, fellow and resident must complete the SAFER training available in New Innovations. Participation is monitored via a report provided by the GME office.

V. Library Facilities

The University of Florida College of Medicine library is located in a building adjacent to the Shands Children's Hospital. The library facility is available to faculty and fellows until 12 midnight each day. It is stocked with reference books and most subspecialty (including Gastroenterology and Hepatology) journals are available. The literature can be obtained via computerized searches in the library or accessed through computers in the offices of the fellows and faculty staff. Further, fellows have access to a smaller

resident library, which is on the pediatric inpatient floor. In this room there is also the capability of performing Medline computer searches.

VI. Policies

The Pediatric Gastroenterology/ Hepatology Fellowship Program adheres to policies regarding gender harassment, grievances, suspension, non-renewal of contracts, dismissal and appeal as set forth by the Department of Pediatrics and University of Florida (details available at <http://www.peds.ufl.edu> and <http://housestaff.medinfo.ufl.edu>, respectively).

Current Faculty

Name	Title	Fellowship Training
Christopher D Jolley, MD	Professor/Chief/ Program Director	University of Texas
Donald A Novak, MD	Professor	University of Cincinnati
Joel M Andres, MD	Professor	Harvard University
Regino P Gonzalez-Peralta, MD	Professor	University of Florida
Sam X Cheng, MD, PhD, MSC	Assistant Professor	Yale University
Genie Beasley, MD	Assistant Professor	University of Florida
Maryann Maximos, DO	Assistant Professor	University of Florida