

# Phoenix Children's Hospital Pediatric Gastroenterology and Hepatology and Nutrition: Overall Education Program Goals

During the three-year Gastroenterology Training Program, Fellows are expected to develop comprehensive skills in the diagnostic evaluation, treatment and follow up of common and uncommon problems of digestive disease function in children. In addition, Fellows will develop an understanding of relevant embryology, biochemistry, physiology, anatomy, and pharmacology as related to the development of normal and abnormal gastrointestinal function in the developing child. Specifically, familiarity and competence should be developed in managing disorders of the esophagus, stomach, small and large intestines, liver, gall bladder, biliary tract, and pancreas; and functional and nutritional problems of the gastrointestinal tract.

**Patient Care and Procedural Skills:** The fellow will provide compassionate, appropriate, and effective patient care. He/she will develop competence in the necessary clinical skills used in the subspecialty and provide consultation, including the ability to perform a history and physical examination, make informed diagnostic and therapeutic decisions that result in optimal clinical judgement, develop and carry out management plans, counsel patients and families, and use information technology to optimize patient care. The fellow must demonstrate the ability to provide transfer of care that ensures seamless transitions, must demonstrate the ability to develop and carry out management plans; and, must demonstrate the ability to provide appropriate role modeling and supervision. Fellows will be able to competently perform all medical, diagnostic, and surgical procedures considered essential for the area of practice. Fellows will demonstrate competence in performing and interpreting the results of laboratory tests and diagnostic procedures for use in patient care. Fellows will acquire the necessary procedural skills and develop an understanding of their indications, risks, and limitations.

**Medical Knowledge:** The fellow will develop an expanded knowledge base of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care. He/She will develop a working understanding of biostatistics, clinical and laboratory research methodology, study design, preparation of applications for funding and/or approval of clinical research protocols, critical literature review, principles of evidence-based medicine, ethical principles involving clinical research, and the achievement of proficiency in teaching.

**Practice-based Learning:** The fellow will develop competence in 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.

Fellows individual learning plans will include the expectation to develop skills and habits to be able to meet the following goals:

1. Identify strengths, deficiencies, and limits in one's knowledge and expertise;
2. Set learning and improvement goals;
3. Identify and perform appropriate learning activities;
4. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement;
5. Incorporate formative evaluation feedback into daily practice; locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems;
6. Use information technology to optimize learning;

7. Participate in the education of patients, families, students, fellows and other health professionals;
8. Self-evaluate performance and incorporate assessments provided by faculty members, peers, and patients.

**Interpersonal and Communication Skills:** The fellow will develop excellent interpersonal and communication skills in relationship building, collaborating, and supporting patients, families, and interdisciplinary medical teams. The fellow will learn to:

1. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds;
2. Communicate effectively with physicians, other health professionals, and health related agencies;
3. Work effectively as a member or leader of a health care team or other professional group;
4. Act in a consultative role to other physicians and health professionals;
5. Maintain comprehensive, timely, and legible medical records, if applicable; and,
6. Teach proficiently based on knowledge of the principles of adult learning, including participating effectively in curriculum development, delivery of information, provision of feedback to learners, and assessment of educational outcomes.

**Professionalism:** The fellow will develop and foster a sense of professionalism in regards to professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. He/She will be able to demonstrate:

1. Compassion, integrity, and respect for others;
2. Responsiveness to patient needs that supersedes self-interest;
3. Respect for patient privacy and autonomy;
4. Accountability to patients, society and the profession;
5. Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation;
6. Trustworthiness that makes colleagues feel secure when the fellow is responsible for the care of patients;
7. Leadership skills that enhance team function, the learning environment, and/or the health care delivery system/environment with the ultimate intent of improving care of patients; and,
8. The capacity to recognize that ambiguity is part of clinical medicine and to respond by utilizing appropriate resources in dealing with uncertainty.

**System-based Practice:** The fellow will develop a sense of 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. He/she will also learn how to:

1. Work effectively in various health care delivery settings and systems relevant to their clinical specialty;
2. Coordinate patient care within the health care system relevant to their clinical specialty;
3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate;
4. Advocate for quality patient care and optimal patient care systems;
5. Work in interprofessional teams to enhance patient safety and improve patient care quality;
6. Participate in identifying system errors and implementing potential systems solutions;
7. Participate in the administrative aspects of the subspecialty, including:

- a. Knowledge of regional and national access to care, resources, workforce, and financing appropriate to the subspecialty through guided reading and discussion; and
- b. Organization and management of a subspecialty service within one's own delivery system by engaging fellows as active participants in discussions (e.g., through scheduled division activities/meetings) that involve:
  - i. staffing a service or unit, including managing personnel and making and adhering to a schedule
  - ii. crafting policies and procedures, leading interdisciplinary meetings and conferences, and providing in-service teaching sessions;
  - iii. proposals for hospital and community resources, including clinical, laboratory, and research space, equipment, and technology necessary for the program to provide state-of-the-art care while advancing knowledge in the field;
  - iv. business planning and practice management, including billing and coding, personnel management policies, and professional liability;
  - v. division or program development, organization, and maintenance; and,
  - vi. Collaboration within (e.g., with pathology, radiology, or surgery) and beyond (e.g., participation in national specialty societies, cooperative care groups, or multi-center research) the institution as appropriate to the subspecialty.

## 1. DIAGNOSTIC LIST

- A. ESOPHAGUS > Swallowing disorders > Eosinophilic esophagitis > Gastroesophageal reflux disease > Caustic ingestions > Motility disorders of esophagus > Obstruction of esophagus (including achalasia and esophageal spasm) > Strictures > Esophagitis and esophageal ulcers > Varices > Congenital anomalies > Foreign body (esophageal atresia, TEF) > Infectious esophagitis (candida, HSV)
- B. STOMACH > Acute and chronic gastritis > Gastric ulcer > H. pylori infection > Eosinophilic gastritis > Infectious gastritis > Peptic disease > Gastric hypomotility/dysmotility > Crohn's disease > Gastric outlet obstruction > Upper GI bleeding (including pyloric stenosis) > PEGs/feeding access > Acute and chronic vomiting
- C. SMALL INTESTINE > Duodenal and intestinal ulcer diseases > Crohn's disease > Acute and chronic diarrhea > Bacterial overgrowth > Malabsorption conditions (Carbohydrate, Protein, Lipids) > Short bowel syndrome > Congenital anomalies > Malrotation with or without midgut volvulus > Motility disorders of the small intestine > Meckel's diverticulum and > Allergic gastroenteropathy > other duplications > Intestinal obstruction > Diarrhea in immunocompromised host > Celiac disease > Graft vs. Host disease
- D. LARGE INTESTINE > Infectious colitis > Allergic colitis/ breastmilk colitis > Ulcerative colitis and Crohn's disease > Colonic polyps > Anorectal disorders (hemorrhoids, fistula, stenosis, atresia) > Ischemic colitis > Motility disorders of colon > Congenital anomalies > Lower gastrointestinal bleeding
- E. HEPATOBILIARY SYSTEM > Neonatal cholestasis > Biliary atresia and Choledochal cyst > Metabolic liver disease > Hepatic storage disease > Cystic and fibrosing conditions >

- Intrahepatic/Extrahepatic bile duct of the liver disorders > Acute and chronic hepatitis > Cirrhosis > Gallstones and cholecystitis > Liver transplantation and long-term care > Hepatic masses and tumors > Acute and chronic liver failure long-term care > Portal hypertension and its > Non-alcoholic fatty liver Disease complications
- F. PANCREAS > Acute and chronic pancreatitis > Pancreatic pseudocyst > Pancreatic insufficiency disorders > Congenital anomalies Including cystic fibrosis > Trauma to pancreas > Pancreatic masses and Tumors
- G. FUNCTIONAL DISORDERS > Acute & Chronic abdominal pain > Constipation and encopresis > Chronic vomiting/ cyclic vomiting > Increased flatulence Syndrome > Irritable bowel syndrome > Food refusal > Oral Aversion > Suck/Swallow disorders
- H. NUTRITIONAL PROBLEMS > Failure to thrive > Anorexia > Acute and chronic weight loss > Obesity > Specific nutrient deficiencies > Short bowel syndrome > Chronic management of enteral or parenteral nutritional supplementation
- I. GI PROBLEMS AND SYSTEMIC DISEASES > Vasculitis/connective tissue > immunodeficiency > multiple organ failure > Bone marrow transplantation

## 2. PROCEDURE LIST

During the three years of training, the fellow will become proficient in performance and interpretation of the following procedures:

1. Upper gastrointestinal endoscopy
2. Colonoscopy and sigmoidoscopy
3. Polypectomy (upper and lower)
4. Esophageal variceal sclerosis/band ligation
5. Removal of gastrointestinal foreign bodies
6. Dilation of esophageal strictures
7. Small intestinal biopsy
8. Suction rectal biopsy
10. Video capsule endoscopy
11. Esophageal pH or pH impedance studies
12. Breath hydrogen analysis

The fellow will also become familiar with the indications, use, and interpretations of findings of esophageal and anorectal manometry, liver biopsies, and ERCP. Proficiency is defined as understanding the clinical indications and contraindications, proper sedation techniques and intra-procedural monitoring, physical performance of the procedure, interpretation of abnormal and normal findings, and proper post-procedural monitoring.

PROCEDURE: THE FELLOW WILL MAINTAIN A WRITTEN LOG OF EACH PROCEDURE PERFORMED, the date, patient identification, findings, and comments throughout the fellowship. An evaluation request for at least one upper endoscopy per procedure session and for every other type of procedure performed will be sent through the MedHub system to the supervising attending. Results of these evaluations will be discussed during regular meetings with the Program Director/Associate Program Director.

### COLONOSCOPY TRAINING GOALS:

Description of Experience: The fellow will begin colonoscopy training after demonstrating skilled use of the upper endoscope. Developing competency in upper endoscopy typically occurs during the first year of fellowship with the majority of Colonoscopy skill acquisition in the second year of training. Once the fellow has started, he/she will continue building upon these skills throughout the fellowship experience.

Outpatient endoscopic procedures are performed in an endoscopy suite located in the Surgery East Endoscopy Suite within Phoenix Children's Hospital, utilizing state-of-the-art high definition equipment. Inpatient endoscopy occurs in both the pediatric operating room suites in the Main Operating Room and in the Surgery East Endoscopy Suite. The modern ambulatory and inpatient facilities provide a safe and efficient environment for both routine and emergent endoscopy. The units are staffed by well-trained registered nurses and technicians, all of whom are properly trained as gastrointestinal endoscopy assistants. By the end of the 2<sup>nd</sup> year fellowship of clinical training, the fellow is expected to achieve basic and clinical knowledge, judgmental skills, and the technical competence requisite for performing colonoscopy. The endoscopic experience not only includes technical proficiency but also an understanding of procedural indications, contraindications, and complications of the various endoscopic procedures and the ability to interpret their results.

By completion of the 3<sup>rd</sup> year fellowship experience, the fellow is expected to reach the cecum 90% or more of the time. Faculty supervision in the endoscopy unit is provided by a number of skilled pediatric endoscopists. Endoscopic supervision consists not only of directly observing and guiding the trainee as he or she manipulates the colonoscope, but also continued instruction in endoscopic decision-making, technique, and interpretation of findings as well as ongoing evaluation of procedures, reports, and photographic records.

Educational Purpose: Acquiring the skills to perform colonoscopy safely, effectively, and comfortably requires an understanding of the indications, risks, and limitations of the procedure. It also requires competence in maximizing visualization of the mucosa of the entire colon as well as intubation and inspection of the terminal ileum. Additionally, the fellow must learn to minimize patient discomfort, ensure the appropriate identification of normal and abnormal findings as well as skillfully perform therapeutic techniques.

**Competency in performing colonoscopic procedures requires that the trainee learn and become proficient in the following:**

Review of medical records, x-rays; be able to identify potential risk factors prior to performing procedures

1. Understand and discuss appropriate alternative procedures
2. Correctly identifies procedural indications; understands how colonoscopy will influence management
3. Obtains and documents appropriate informed consent
4. Ensures appropriate sedation and patient monitoring devices are in place prior to start of procedure
5. Accurately performs all required elements of a surgical "time-out" prior to the endoscopic procedure
6. Selects the appropriate colonoscope/endoscope for the patient size and medical condition
7. Performs perianal examination prior to colonoscope insertion
8. Performs the procedure with attention to patient comfort and safety
9. Correctly identifies anatomic landmarks
10. Conducts a thorough examination; obtains necessary/indicated biopsies
11. Detects and identifies all significant pathology
12. Completes examination within a reasonable time
13. Prepares an accurate report

14. Plans correct management and disposition of the patient
15. Discusses findings with patient/guardian and other physicians
16. Conducts proper follow-up including review of pathology, case outcome

Assessment Summary: Judgment as well as interpretive and technical skills are evaluated in every trainee. Regular, ongoing feedback is provided both verbally by the supervising faculty and by means of quarterly written reports filled by all attending faculty, similar in format to that for the non-endoscopic components of the training program. Procedural competency is further evaluated using the tool designed and evaluated by the North American Society for Pediatric Gastroenterology and Nutrition's Endoscopy and Procedures Committee. The program director has the responsibility to confirm or deny the technical competency and endoscopic exposure of trainees. Documentation of procedures performed is recorded through a computer database that identifies the procedure(s) performed and any complications.

Expectations: Throughout the training experience, fellows are expected to work closely in a respectful manner with the staff attendings, anesthesia team, nursing and technical personnel as well as patients and their families. By the completion of the second year of fellowship, the trainee should have achieved the following:

1. The ability to recommend endoscopic procedures based on findings of a personal consultation and in consideration of specific indications, contraindications, and diagnostic/therapeutic alternatives.
2. The ability to perform a specific procedure safely, completely, and expeditiously.
3. The ability to interpret most endoscopic findings correctly.
4. The ability to integrate endoscopic findings or therapy into the patient management plan.
5. The ability to understand the risk factors in regards to colonoscopic procedures and to be able to recognize and manage complications.
6. The ability to recognize personal and procedural limits and to know when to request help.
7. Knowledge of patient safety procedures during endoscopy including the intravenous administration of medications that produce conscious sedation and the application and interpretation of noninvasive patient monitoring devices.
8. Familiarity with the care, cleaning, and proper maintenance of endoscopy equipment.

In addition to diagnostic colonoscopy with mucosal biopsy, the cognitive and technical aspects of therapeutic colonoscopic procedures are taught as the fellowship progresses, typically in the 3<sup>rd</sup> year of fellowship. These include the following:

1. Stricture dilations using a variety of techniques (direct visualization using colonoscope, balloons)
2. Polypectomy (snare/hot biopsy forceps)
3. Endoscopic techniques of hemostasis such as epinephrine injection, bipolar cautery, clipping.

Orientation: Orientation to the ambulatory and hospital-based endoscopy suites occurs at the beginning of fellowship. The chief fellow is routinely responsible for orientation of incoming fellows, but may designate another qualified individual for the duty if unavailable.

Supervision: Fellows are supervised by a staff gastroenterologist during all endoscopic procedures per hospital policy. Although fellows gradually gain the skills to perform the procedure in its entirety, a staff physician is always in attendance. The fellow gains autonomy with ordering, scheduling, documenting

informed consent as well as procedural results in the EMR and discussing findings and subsequent care with the patient/guardian as deemed appropriate by staff.

Procedure Requirements:

	Recommended no.*
Level 1: routine procedures	
Upper endoscopy (EGD)	
EGD diagnostic	100
EGD with foreign body removal <sup>†</sup>	10
Lower endoscopy	
Colonoscopy <sup>‡</sup>	120
Colonoscopy with snare polypectomy <sup>†</sup>	10
Therapeutic endoscopy	
EGD with control of bleeding variceal or nonvariceal—various methods and/or colonoscopy with control of bleeding—various methods <sup>‡,8</sup>	15
Level 2: complex or new procedures	
Percutaneous endoscopic gastrostomy <sup>  </sup>	10
EGD with dilation (guidewire and through the scope) <sup>§</sup>	10
Pneumatic dilation for achalasia	5
WCE	20
Endoscopic deployment WCE	5
Endoscopic placement of transpyloric feeding tubes or catheters, including motility catheters	5
Enteroscopy using colonoscope	10
Colonoscopy with dilation stricture	5
Bravo pH capsule deployment	10
Percutaneous liver biopsy	15
Rectal biopsy	10
Level 3: advanced procedures	
ERCP (diagnostic and therapeutic, includes sphincterotomy, dilation of stricture, stent placement, stone extraction)	200
Endoluminal stent placement	10
Balloon enteroscopy	10
EUS	100

Educational Resources (reading lists, websites, CD rom, pathological material):

1. NASPGHAN Training Guidelines (on-line; NASPGHAN.org) and The NASPGHAN Fellows Concise Review: Pediatric Gastroenterology Hepatology and Nutrition.
2. ASGE Endoscopic Learning Library DVD
3. Pediatric Gastrointestinal and Liver Disease Pathophysiology, Diagnosis and Management; Wyllie, 5<sup>th</sup> ed
4. Practical Gastrointestinal Endoscopy: The Fundamentals; Peter Cotton, Christopher Williams, 5th ed, 2003
5. Gastrointestinal Physiology: Lange Physiology Series
6. Langman’s medical Embryology
7. Pediatric Gastrointestinal Disease; 3<sup>rd</sup> Edition Walker, Durie, Hamilton, Watkins Medical Library: Pubmed, Micromedex, UptoDate

## Objectives and Goals per Fellow Year

### FIRST YEAR FELLOW:

#### 1. Patient Care

- Develop differential diagnosis for a variety of GI, liver and nutritional disorders. (See Diagnostic List)
- Develop diagnostic plan to include the indication and interpretation of biochemical, radiographic and histologic studies.
- Develop therapeutic competence to perform a variety of GI and liver procedures (see Procedure List)

#### 2. Medical Knowledge

- Topic lectures: Two 45- to 60-minute organized and detailed presentations of the Fellow's choice of any GI, liver, nutrition or research topic directed by the 3rd year Fellow and supervised by Dr Schroeder.
- Pediatric GI/Surgical Conference: One 45-minute organized and in-depth discussions on a GI or pediatric surgery case directed by the fellows in GI and Surgery and one 30- minute presentation at Quarterly Endoscopy Protective Case Review supervised by Dr. Fernando.
- Fellows' Report: Bimonthly, 30-minute presentations on an organized case history and discussion of laboratory or radiographic findings and therapeutic interventions. These presentations are made to the entire GI staff and all fellows, and supervised by the inpatient attending physician. Physiology Conference: Two 45 to 60 minute reviews of specified topics in gastrointestinal physiology, presented to the GI staff and fellows, supervised by Dr. Khan/Dr. Carroll
- Inpatient Rounds
- Brownbag Lunch Sessions/Interdisciplinary: Conferences (aerodigestive, eosinophilic GI clinic, IBD clinic, Feeding disorder clinics, Foregut clinic, Cystic Fibrosis/GI clinic): Participate in weekly AM/Lunch conferences, presented by GI faculty on a variety of clinical topics in gastroenterology, hepatology, and nutrition.

#### 3. Interpersonal Skills and Communication/Professionalism

- Fellows will learn appropriate supervision of house-staff and medical students involved in direct inpatient care of patients with GI, liver and nutritional disorders, supervised by the inpatient or on-call attending.
- The Fellow will demonstrate effective written and oral communication skills to:
  - i. Families
  - ii. Support Personnel
  - iii. Consultative Services



4. Practice-Based Learning and Improvement (some of the following are also covered under Medical Knowledge)

- Pediatric GI/Surgical Conference: Two 45-minute organized and in-depth and interactive discussions on a GI or pediatric surgery case directed by the fellow and supervised by Dr. Fernando.
- Fellows' Report: Bimonthly, 30-minute presentations on an organized case history and discussion of laboratory or radiographic findings and therapeutic interventions. These presentations are interactive and made to the entire GI staff and all fellows.
- QA
- Inpatient Rounds: Lead by attending/fellow in an interactive discussion.
- Nutrition/TPN Rounds: Lead by nutrition support on a case-by-case basis.
- M&M: Presentation and participation in quarterly M&M conferences, supervised by Dr. Fernando (Endoscopy Protective Case review) and Dr. Bulut.

5. Professionalism/Practice-Based Learning

- Fellows will learn appropriate supervision of house-staff and medical students involved in direct inpatient care of patients with GI, liver and nutritional disorders, supervised by the inpatient or on-call attending. Fellows direct care and do not assume primary care management.
- First-year Fellow will organize and assure the successful completion of Fellow Rounds each Thursday morning, supervised by the inpatient attending.
- First-year Fellow will organize and assure successful completion of one Wednesday afternoon conference per month. The Fellow will be assigned responsibility for either the Radiology or Pathology Conference. The Fellow will be responsible for the identification of appropriate radiographic or histologic specimens to be reviewed during the conference. The Fellow will assure a brief history for each case is available. The Fellow will assure that the participating staff radiologist or pathologist be informed of the selected cases prior to the scheduled conference. Cases will be chosen at the discretion of the Fellow and supervised by Dr. Schroeder/Collyer.
- Completion of medical records (all inpatient consults, H&P's by 24 hours, operative notes within 1 hour, and outpatient notes by 48 hours.)

6. Systems-Based Practice

- Formal oral communication skills (teaching) are listed under "Medical Knowledge" and include Topic Lectures and Pediatric Surgery/GI Conference
- First-year fellows will attend and participate in multidiscipline conferences on a monthly basis:

- i. Pathology. Lead by faculty pathologist or resident pathologist; supervised by attending pathologist.
- ii. Radiology. Lead by faculty radiologist or resident radiologist; supervised by attending radiologist.
- iii. Pediatric Surgery.
- iv. \_Research. Invited faculty present individual research and each fellow/faculty presents research in progress, QI projects.

## **2nd YEAR FELLOW:**

### **1. Patient Care**

- Fellow will continue to maintain clinical proficiency in a variety of GI, liver and nutritional disorders (see Diagnostic List) and increase complexity of differential diagnosis.
- Maintain competency in a variety of GI and liver procedures (see Procedure List) by attending three- four half-days of GI Procedure blocks per month. The focus should be on increasing speed and proficiency in routine diagnostic procedures and increasing exposure and comfort level in performing advanced and interventional procedures. A premium should be placed on participation in colonoscopy procedures.
- 3-4 week inpatient rotation managing GI and Hepatology Patients
- Maintain a GI continuity clinic. This clinic will be one half-day per week. The Fellow is responsible for follow up and communication with all patients seen in continuity and will be supervised by the primary GI/Hepatology/Nutrition attending. The Fellow will be responsible for timely communication and documentation of biopsy results for procedures performed on their patients, within seven calendar days of procedure completion. Continuity clinic list will be maintained for all GI/Liver patients to include procedures and dates of service.
- Develop individualized approach to common GI problems (Constipation, GER, abdominal pain)

### **2. Medical Knowledge**

- Topic lectures. Two 45- to 60-minute organized and detailed presentations of the Fellow's choice of any GI, liver, nutrition and research in progress organized by the 3rd year Fellow and supervised by Dr. Schroeder.
- Pediatric Surgical/GI Conference. One 45-minute organized and in-depth discussions on a GI or pediatric surgery case organized by the 3rd year fellow and supervised by Dr. Fernando.
- Fellows' Report. Bimonthly, 30-minute presentations on an organized case history and discussion of laboratory or radiographic findings and therapeutic interventions. These presentations are made to the entire GI staff and all fellows.
- Inpatient Rounds.
- 2nd Year fellows will complete a series of research oriented courses provided by fellows conference covering ethics, research outcomes, statistics and grant writing.
- The 2nd year Fellow is responsible to work on a daily basis on his/her research project under the direct supervision of their research mentor. Biannual presentation to SOC, annual research update to general GI division

### 3. Interpersonal Skills and Communication

- Fellows will continue to provide appropriate supervision of house-staff and medical students involved in direct inpatient care of patients with GI, liver and nutritional disorders, supervised by the inpatient attending.
- The Fellow will demonstrate effective written and oral communication skills to:
  - i. Families
  - ii. Support Personnel
  - iii. Consultative Services

### 4. Practice-Based Learning and Improvement

- Pediatric Surgical Conference. One 45-minute organized and in-depth multidisciplinary discussions on a GI or pediatric surgery case directed by the 3rd year fellow and supervised by Dr. Fernando.
- Fellows' Report. Bimonthly, 30-minute presentations on an organized case history and discussion of laboratory or radiographic findings and therapeutic interventions. These presentations are interactive and made to the entire GI staff and all fellows.
- QI project: The fellows, as a group, will develop and implement a novel QI project each year, using accepted QI tools, under the supervision of Dr. Williams.
- Inpatient Rounds. 2nd year fellows lead inpatient rounds under the supervision of attending MD in an interactive manner.
- Develop one practice based improvement project in continuity clinic.

### 5. Professionalism

- The 2nd year fellow will assume responsibility for the Physiology Course. The fellow will be responsible to assign 1st, 2nd and 3rd year fellows a specific date and/or topic to be presented at the Physiology Course. The fellow will assure each fellow is aware of their data and successfully performs their presentation. The choice of topic is at the discretion of the 2nd-year fellow, from the list of the Pediatric Board Review physiology topics and supervised by an attending physician. The fellow will assign a specific GI/Liver attending to supervise each fellow and topic.

### 6. Systems-Based Practice

- Formal oral communication skills (teaching) are listed under "Medical Knowledge" and include Topic Lectures and Pediatric Surgery/GI Conference.
- Continue to attend and participate in multidiscipline conferences on a monthly basis:
  - i. Pathology. Lead by faculty pathologist or resident pathologist; supervised by attending pathologist.
  - ii. Radiology. Lead by faculty radiologist or resident radiologist; supervised by attending radiologist.

- iii. Pediatric Surgery.
- iv. Research. Invited faculty present individual research, and each fellow/faculty presents research in progress.
- v. M & M Conference

### **3rd YEAR FELLOW**

#### **1. Patient Care**

Fellow will continue to maintain clinical proficiency in a variety of GI, liver and nutritional disorders (see Diagnostic List)

- Complete procedure training requirements and demonstrate competency. (see list).
- Maintain a GI/liver continuity clinic. This clinic will be maintained on a weekly basis. The Fellow is responsible for follow up and communication with all patients seen in continuity and will be supervised by the primary GI/Hepatology/Nutrition attending. The Fellow will be responsible for timely communication and documentation of biopsy results for procedures performed on their patients, within seven calendar days of procedure completion. Continuity Clinic list will be maintained for all GI/Liver patients to include procedures and dates of service.
- Attend subspecialty clinics as needed
- 3-4 week inpatient rotation managing GI and Hepatology Patients (1-2 weeks as “Pre-Tending”)

#### **2. Medical Knowledge**

- Topic lectures. Two 45- to 60-minute organized and detailed presentations on the Fellow’s choice of any GI, liver, nutrition or research topic, supervised by Dr. Schroeder
- Pediatric GI/Surgical Conference. One 45-minute organized and in-depth discussions on a GI or pediatric surgery case, directed by 3rd year Fellow and supervised by Dr Fernando.
- Self-directed reading based on in training scores.

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

- Fellows will learn appropriate supervision of house-staff and medical students involved in direct inpatient care of patients with GI, liver and nutritional disorders.
- The Fellow will demonstrate effective written and oral communication skills to:
  - i. Families
  - ii. Support Personnel
  - iii. Consultative Services
- Complete Med student/Residency core lecture

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

Pediatric Surgical Conference. Two 45-minute organized and in-depth discussions on a GI or pediatric surgery case directed by the 3rd year fellow and supervised by Dr. Fernando.

- Fellows' Report. Bimonthly, 30-minute presentations on an organized case history and discussion of laboratory or radiographic findings and therapeutic interventions. These presentations are made to the entire GI staff and all fellows. (2/year)
- M&M: Participation in quarterly M&M conferences and presentation of specific cases, as requested, under supervision of Dr. Fernando and Bulut.
- Inpatient Rounds. Supervise 1st year fellows on rounds during a defined "PreTending" one-week rotation. First year fellow/residents under the supervision of the inpatient attending MD in an interactive manner.
- Completion of medical records/documentation
- Annual NASPGHAN Fellows Meeting

#### 5. Professionalism

- The 3rd year Fellow will assume responsibility for the GI portion of the combined GI/Surgery Conference. The Fellow will be responsible to assign 1st, 2nd and 3rd year Fellows a specific date and/or topics to be presented at the combined Pediatric GI/Surgery conference. The Fellow will assure that each Fellow is aware of their date and successfully performs their presentation. The choice of topic is at the discretion of the 2nd-year Fellow and supervised by Dr. Fernando.

#### 6. Systems-Based Practice

- Formal oral communication skills (teaching) are listed under "Medical Knowledge" and include Topic Lectures and Pediatric Surgery/GI Conference.
- Continue to attend and participate in multidiscipline conferences on a monthly basis
  - i. Pathology. Lead by faculty pathologist or resident pathologist; supervised by attending pathologist.
  - ii. Radiology. Lead by faculty radiologist or resident radiologist; supervised by attending radiologist.
  - iii. Pediatric Surgery.
  - iv. Research. Invited faculty present individual research, and each fellow/faculty presents research in progress.
  - v. M & M Conference