Subspecialty Rotation: Pediatric Gastroenterology	
****All Goals and Objectives for this rotation are identical across all PL years****	
Primary Goals for this Rotation	**Competencies**
GOAL I: Food Allergy. Understand the role of the general pediatrician in the assessment and management of patients with food allergy.	
1. Identify the signs and symptoms of food allergy and differentiate food allergy from other causes of skin rash, and GI or pulmonary symptoms.	K
2. Differentiate IgE-mediated food allergy from non-IgE mediated food allergy.	K
3. List the foods and formulas most commonly associated with food allergy.	K
4. Discuss the indications, clinical significance, and limitations of diagnostic tests and procedures to diagnose food allergies and interpret the results of skin testing, RAST testing, elimination diets, food challenges.	K, PC
5. Explain the natural history of food allergies, including when suspected allergens may be introduced into the diet.	K, PC
6. Create a treatment plan for a child with food allergies that includes food avoidance, food challenges, management of allergic symptoms, and emergencies.	K, PC
7. Identify the indicators that would lead to subspecialist referral for a child with food allergy.	K, PC
GOAL II: Prevention, Counseling and Screening. (Gastroenterology and Nutrition). Understand the role of the pediatrician in preventing gastrointestinal disease or nutritional deficiencies, and in counseling and screening individuals at risk for these diseases.	
1. Provide routine preventive counseling on nutrition and GI health to all parents and patients that addresses: a) Good nutrition--breast feeding and age-appropriate diet, good eating habits, food safety (choking, food preparation, and storage), prevention of dietary deficiencies or excesses, prudent diet to reduce risks of cardiovascular disease or cancer in adulthood, and safe methods of weight gain or weight loss b) Bowel training and dietary prevention of constipation c) Prevention of hepatitis A and B through immunization d) Good hand washing and food preparation techniques for the prevention of gastrointestinal infections	K, PC, IPC
2. Provide counseling to parents and patients with specific GI conditions that addresses: a) Importance of compliance with medications for inflammatory bowel and liver disease b) Need for surgery in specific gastroenterology conditions (ulcerative colitis, Peutz Jaeger's, etc.) c) Need for specialized diets in certain gastroenterology conditions (IBD, celiac disease, failure to thrive, obesity, lactose intolerance, etc.) d) Dealing with abdominal pain of apparent psychosomatic origin	K, PC, IPC
3. As part of regular GI screening, plot growth parameters using appropriate growth charts (e.g., charts for Down's, achondroplasia, Turner, prematurity),	K, PC

and measure BMI to monitor trends suggestive of failure to thrive, overweight and obesity.	
GOAL III: Normal Vs. Abnormal (Gastroenterology and Nutrition). Differentiate between normal and pathological states related to gastroenterology.	
1. Describe the normal eating patterns from birth through adolescence, including expected weight gain and typical feeding behaviors.	K
2. Describe normal developmental patterns in gastrointestinal development, including gastro-esophageal reflux, bowel habits, and stool color and consistency.	K
3. Explain the findings on clinical history and examination that suggest gastrointestinal disease needing further evaluation and/or treatment. Such findings include symptomatic gastro-esophageal reflux, vomiting, diarrhea, constipation, abdominal pain, hematemesis, hematochezia, melena and weight loss.	K
4. Differentiate transient and functional abdominal pain from pathologic abdominal pain.	K
5. Discuss the evaluation of liver function and liver abnormalities, and differentiate transient elevation of liver enzymes from serious liver disease.	K
GOAL IV: Undifferentiated Signs and Symptoms (Gastroenterology and Nutrition). Evaluate, treat, and/or refer patients with presenting signs and symptoms that suggest a gastrointestinal disease process.	
1. Create a strategy to determine if the following presenting signs and symptoms are caused by a gastrointestinal disease process and decide if the patient needs treatment or referral: a) Fatigue b) Vomiting c) Growth failure, weight loss, failure to thrive d) Diarrhea e) Constipation f) Abdominal pain g) Jaundice h) Obesity i) Colic j) Chest pain k) Sore throat	K, PC
2. Describe the evaluation and management of a child with possible psychosomatic abdominal pain.	K, PC, P, IPC, SBP
GOAL V: Common Conditions Not Referred (Gastroenterology and Nutrition). Diagnose and manage patients with gastrointestinal conditions generally not requiring referral.	
1. Diagnose, explain, and manage the following gastrointestinal conditions: a) Diarrhea due to infectious causes, including bacterial enteritis, giardiasis and viral gastroenteritis b) Diarrhea due to non-infectious causes, including chronic nonspecific diarrhea, milk protein intolerance, and lactose intolerance c) Common nutritional deficiencies	K, PC

d) Constipation, encopresis e) Exogenous obesity f) Gastroesophageal reflux g) Non-specific intermittent abdominal pain h) Irritable bowel syndrome i) Jaundice associated with breast feeding j) Transient hematemesis due to a Mallory Weiss tear k) Viral hepatitis, uncomplicated	
GOAL VI: Conditions Generally Referred (Gastroenterology and Nutrition). Recognize and initiate management of patients with gastrointestinal conditions that generally require referral.	
1. Identify, explain, provide initial management, and obtain consultation or refer the following gastrointestinal conditions: a) Gastrointestinal conditions generally not referred, if severe or if management is unsuccessful b) Conditions warranting urgent surgical or gastroenterology evaluation, such as: suspected appendicitis, abdominal mass, bowel obstruction, volvulus, intussusception, pyloric stenosis, foreign bodies lodged in esophagus, caustic ingestions (including watch batteries), biliary atresia/stones, congenital GI bleeding, persistent hematemesis due to a Mallory Weiss tear and blunt abdominal trauma c) Hepatobiliary diseases, including: neonatal, chronic, or persistent hepatitis, direct or conjugated neonatal hyperbilirubinemia or hyperbilirubinemia outside the neonatal period; alpha 1 antitrypsin deficiency; pancreatitis; and/or hepatosplenomegaly d) Severe acute or chronic intestinal conditions, including: suspected inflammatory bowel disease, colitis, non-infectious gastrointestinal bleeding e) Nutritional deficiencies that are severe or uncommon, including: rickets, kwashiorkor, and/or marasmus f) Chronic diarrhea with or without malabsorption, including: suspected celiac disease, cystic fibrosis, Schwachman's syndrome, gastrointestinal infection with prolonged diarrhea, and/or undiagnosed diarrhea g) Gastrointestinal entities requiring special evaluation and follow-up, including: morbid obesity, anorexia nervosa, bulimia, severe failure to thrive	K, PC, IPC
2. Identify the role and general scope of practice of gastroenterology; recognize situations where children benefit from the skills of specialists trained in the care of children; and work effectively with these professionals to care for children's gastroenterology and nutrition disease processes.	K, PC, IPC, P, SBP
GOAL VII: Vomiting. Diagnose and manage vomiting.	
1. Differentiate normal infant spitting up and functional asymptomatic gastroesophageal reflux from vomiting disorders requiring evaluation and treatment.	K, PC
2. Describe both common and serious disorders leading to vomiting (both intestinal and extraintestinal) and the appropriate use of laboratory and imaging studies to aid in diagnosis.	K, PC

3. Recognize symptoms and urgently refer children with vomiting caused by intestinal obstruction.	K, PC, IPC
4. Describe the typical presentation and suspected course of viral gastroenteritis and evaluate vomiting that does not conform to this presentation and course.	K, PC
5. Recognize signs and symptoms of dehydration in a child with vomiting. Calculate fluid deficits based on weight and clinical symptoms and manage rehydration using IV fluids or oral rehydration solutions.	K, PC
6. Develop an evidence-based plan, based on etiology, for withholding, feeding or reintroducing solid foods during and after vomiting.	K, PC, PBLI
7. Discuss common remedies and medications used to treat vomiting, along with indications, limitations and potential adverse effects.	K, PC
8. Identify the indicators for a gastroenterology consultation or referral of a child with vomiting.	K, PC
GOAL VIII: Abdominal Pain. Diagnose and manage abdominal pain.	
1. Compare the common causes of abdominal pain and describe signs and symptoms that differentiate recurrent (functional) abdominal pain of childhood from other organic causes that require further evaluation and treatment.	K
2. Explain the key components of a complete history and physical examination for abdominal pain. These should include pain patterns, weight loss, complete diet history, elimination history (including stool size, pattern, and consistency), psychosocial history, rectal exam and an age/gender-dependent pelvic exam.	K
3. Develop a diagnostic and treatment plan for a patient with abdominal pain that uses step-wise evaluation and treatment.	K, PC
4. Identify indicators that suggest need for a gastroenterology or surgery consultation or referral for a child with abdominal pain.	K, PC
5. Counsel parents about possible behavioral and psychological sources of abdominal pain, and how to handle a child with recurrent psychosomatic pain.	K, PC, IPC
GOAL IX: Diarrhea. Diagnose and manage diarrhea.	
1. Compare and contrast the infectious and non-infectious causes of diarrhea. Describe signs and symptoms that differentiate self-limiting diarrhea from diarrhea requiring further evaluation and treatment.	K
2. Explain the key components of a complete history and physical examination for diarrhea, including a complete diet history, length of illness, elimination history (including stool size, pattern, and consistency), and travel history, in order to classify a diarrheal illness as acute or chronic.	K
3. Describe the appropriate diagnostic work up for a patient with acute or chronic diarrhea, including factors that suggest celiac disease or cystic fibrosis.	K, PC
4. Recognize signs and symptoms of dehydration in a child with diarrhea. Calculate fluid deficits based on weight and clinical symptoms and manage rehydration using IV fluids or oral rehydration solutions.	K, PC
5. Develop an evidence-based plan that is based on etiology for withholding, feeding or reintroducing solid foods during and after a diarrheal illness.	K, PC, PBLI
6. Discuss common remedies and medications used for diarrhea, along with indications, limitations and potential adverse effects.	K
7. Identify the indicators for a gastroenterology consultation or referral of a child with diarrhea.	K
8. Counsel parents about possible behavioral and psychological causes of diarrhea, and explain how to handle a child with recurrent diarrhea of apparent psychosomatic origin.	K, PC, IPC

GOAL X: Nutrition (Gastroenterology and Nutrition). Understand principles of nutrition important to the general pediatrician.	
1. Conduct an age-appropriate nutritional history and exam for nutritional disorders.	K, PC, IPC
2. List conditions that may present with malnutrition or which commonly occur in combination with malnutrition.	K
3. Compare and contrast the major components (e.g., carbohydrate, protein, fat sources) of the following milk types: human breast milk, cow's milk-based infant formula, soy formula, specialized formulas, and whole milk.	K
4. List common signs and symptoms of deficiency in the following nutritional components, and identify children at high risk for deficiency. Describe the adequate dietary requirements and dietary source for each component. a) B12 b) Calcium c) Calorie d) Fat e) Fluoride f) Folate g) Iron h) Protein i) Vitamins A, C, D, K, E j) Zinc	K
5. Provide informative and accurate nutritional counseling to parents and patients suspected of a nutritional deficiency or with exogenous obesity.	K, PC, IPC
6. Describe intervention approaches with proven efficacy in helping children, adolescents and families alter their eating and exercise habits, in order to reduce obesity and its attendant lifelong health risks.	K, PC
7. Discuss nutritional supplements that can be added to children's diets to increase caloric and nutritional content. a) Describe the forms of parenteral nutrition (i.e. peripheral and total parenteral nutrition) and situations that warrant the use of each. b) Explain the components of peripheral parenteral nutrition or total parenteral nutrition, including protein, glucose, electrolytes, vitamins, minerals and lipid, and describe how to determine what is needed by the patient.	K, PC
8. Describe the typical monitoring of a child on TPN; identify the indicators that would lead you to a nutrition consultation or referral for a child with suspected or identified nutritional deficiency and/or exogenous obesity.	K, PC
9. Identify conditions in which weight alteration may be necessary and provide guidelines for safe weight gain or loss.	K, PC
10. Discuss the presentation, diagnosis and management of eating disorders.	K, PC
Procedures	
GOAL XI: Technical and therapeutic procedures. Describe the following procedures, including how they work and when they should be used; competently perform those commonly used by the pediatrician in practice.	

Gastric tube placement (OG/NG)	K, PC
Gastrostomy tube replacement	K, PC
Rectal swab	K, PC
Skin fold thickness	K, PC
GOAL XII: Diagnostic and screening procedures. Describe the following tests or procedures, including how they work and when they should be used; competently perform those commonly used by the pediatrician in practice.	
Colonoscopy/sigmoidoscopy	K, PC
Esophago-gastro-duodenoscopy	K, PC
pH probe (Tuttle test)	K, PC
Radiologic interpretation: GI contrast study	K, PC
Radiologic interpretation: nuclear medicine GI scanning	K, PC
Suction rectal biopsy	K, PC

Core Competencies: **K** - Medical Knowledge
PC - Patient Care and Procedural Skills
IPC - Interpersonal and Communication Skills
P - Professionalism
PBLI - Practice-Based Learning and Improvement
SBP - Systems-Based Practice

Performance Expectations by Level of Training

	Beginning	**Developing**	**Accomplished**	**Competent**
	Description of identifiable performance characteristics reflecting a **beginning level** of performance.	Description of identifiable performance characteristics reflecting **development and movement toward mastery** of performance.	Description of identifiable performance characteristics reflecting **near mastery** of performance.	Description of identifiable performance characteristics reflecting the **highest level** of performance.
Medical Knowledge	PL1	PL1, PL2	PL2, PL3	PL3
Patient Care and Procedural Skills	PL1	PL1, PL2	PL2, PL3	PL3
Interpersonal and Communication Skills	PL1	PL1, PL2	PL2, PL3	PL3
Professionalism		PL1	PL2, PL3	PL3
Practice-Based Learning and Improvement	PL1	PL1, PL2	PL2, PL3	PL3
Systems-Based Practice	PL1	PL1, PL2	PL2, PL3	PL3

Milestones assessed on this rotation are:

Patient Care 1: History				
Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**
Gathers information strictly following a template	Adapts template to filter and prioritize pertinent positives and negatives based on broad diagnostic categories or possible diagnoses	Filters, prioritizes, and synthesizes the history to develop a differential diagnosis in real-time for uncomplicated or typical presentations	Filters, prioritizes, and synthesizes the history to develop a differential diagnosis in real time for complicated or atypical presentations	Recognizes and probes subtle clues from patients and families; distinguishes nuances among diagnoses to efficiently drive further information gathering

Patient Care 4: Clinical Reasoning				
Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**
Presents clinical facts (e.g., history, exam, tests, consultations) in the order they were elicited	Generates an unfocused differential diagnosis based on the clinical facts	Organizes clinical facts to compare and contrast diagnoses being considered, resulting in a prioritized differential diagnosis	Integrates clinical facts into a unifying diagnosis(es); reappraises in real time to avoid diagnostic	Role models and coaches the organization of clinical facts to develop a prioritized differential diagnosis, including life threatening diagnoses, atypical presentations, and complex clinical presentations

Patient Care 5: Patient Management				
Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**
Reports management plans developed by others	Participates in the creation of management plans	Develops an interdisciplinary management plan for common and typical diagnoses	Develops and implements informed management plans for complicated and atypical diagnoses, with the ability to modify plans as necessary	Serves as a role model and coach for development of management plans for complicated and atypical diagnoses, with the ability to modify plans as necessary

Practice-Based Learning and Improvement 2: Reflective Practice and Commitment to Personal Growth				
Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**
Participates in feedback sessions	Demonstrates openness to feedback and performance data	Seeks and incorporates feedback and performance data episodically	Seeks and incorporates feedback and performance data consistently	Role models and coaches others in seeking and incorporating feedback and performance data
Develops personal and professional goals, with assistance	Designs a learning plan based on established goals, feedback, and	Designs and implements a learning plan by analyzing and reflecting on the	Adapts a learning plan using long-term professional goals, self-reflection, and performance data to	Demonstrates continuous self-reflection and coaching of others

	performance data, with assistance	factors which contribute to gap(s) between performance expectations and actual performance	measure its effectiveness	on reflective practice

Interpersonal and Communication Skills 1: Patient and Family Centered Communication				
Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**
Demonstrates respect and attempts to establish rapport	Establishes a therapeutic relationship in straightforward encounters	Establishes a culturally competent and therapeutic relationship in most encounters	Establishes a therapeutic relationship in straightforward and complex encounters, including those with ambiguity and/or conflict	Mentors others to develop positive therapeutic relationships
Attempts to adjust communication strategies based upon patient/family expectations	Adjusts communication strategies as needed to mitigate barriers and meet patient/family expectations	Communicates with sensitivity and compassion, elicits patient/family values, and acknowledges uncertainty and conflict	Uses shared decision making with patient/family to make a personalized care plan	Models and coaches others in patient- and family-centered communication