



Entrustable Professional Activities

EPA 3 for Pediatric Gastroenterology

EPA 3: Care for Infants, Children, and Adolescents with Common Outpatient GI, Liver/Biliary, Pancreatic, and Nutritional Issues

Supervision Scale for This EPA

1. Trusted to observe only
2. Trusted to execute with direct supervision and coaching
3. Trusted to execute with indirect supervision and discussion of information conveyed for most simple and some complex cases
4. Trusted to execute with indirect supervision but may require discussion of information conveyed for a few complex cases
5. Trusted to execute without supervision

Description of the Activity

Pediatric gastroenterologists, entering unsupervised practice, are able to diagnose and manage common gastrointestinal complaints (including vomiting, diarrhea, abdominal pain, constipation, and failure to thrive), and diagnose and manage common liver/biliary/pancreatic outpatient complaints (elevated transaminases, neonatal cholestasis, etc.). Pediatric gastroenterologists must be able to differentiate between organic disease and functional disorders. They must be familiar with signs and symptoms of organic diseases as well as the diagnosis and treatment of functional GI disorders.

The specific functions which define this EPA include:

1. Obtaining accurate and complete information sufficient to develop a differential diagnosis and management plan
2. Demonstrating knowledge of diseases/conditions and symptoms common to pediatric gastroenterology, hepatology, and nutrition
3. Communicating management plans to patients, their families, and caregivers
4. Educating patients, their families and caregivers, and other health professionals about the disease process and management plan
5. Adapting management plans to changing clinical information
6. Communicating and providing consultation to referring physicians and other health care providers

Judicious Mapping to Domains of Competence

- Patient Care
- Medical Knowledge
- Practice-Based Learning and Improvement
- Interpersonal and Communication Skills
- Professionalism
- Systems-Based Practice
- Personal and Professional Development



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Competencies Within Each Domain Critical to Entrustment Decisions

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|---------|---------------------------------|
| PC 4: | Interviewing patients |
| PC 6: | Using optimal clinical judgment |
| PC 10: | Providing health maintenance |
| MK 1: | Demonstrate knowledge |
| MK 2: | Practicing EBM |
| PBLI 9: | Educating others |
| ICS 5: | Consultative role |

Context for the EPA

Rationale/Scope of Practice: Pediatric gastroenterologists must have a broad understanding of common outpatient GI, liver, and nutritional issues including constipation, gastro-esophageal reflux disease, functional GI disorders, failure to thrive, diarrhea, and basic liver outpatient complaints including hyperbilirubinemia/jaundice, elevated liver enzymes, and other common liver diseases.

Because functional GI disorders (FGID) and motility disorders are common in children, pediatric gastroenterologists require comprehensive exposure to the diagnosis and treatment of these disorders and their complications, as well as a thorough understanding of their pathophysiology. Pediatric gastroenterologists should understand the types and current classification of FGID and the Rome criteria. They should be familiar with the epidemiology of FGID and the natural history of these disorders. Pediatric gastroenterologists should thoroughly comprehend the bio-psycho-social model of illness and the concept of the brain-gut axis in the evaluation and treatment of FGID. They also should be cognizant of fictitious disorder by proxy and how it may mimic organic or functional disease. They should know the diagnostic criteria and alarm signs that should prompt further evaluation. They need to know the role of different diagnostic tests, including their indications and potential limitations. They need to know the indications, pharmacology, and potential benefits and adverse effects of the available medications as well as the role of psychological evaluation and behavioral modifications as part of the multidisciplinary approach to these disorders. Pediatric gastroenterologists should comprehend the swallowing mechanism, including the role of the central nervous system in swallowing. They should be familiar with the indications and technique of performing tests to evaluate swallowing disorders in children.

Pediatric gastroenterologists should know the anatomy and innervation of the different portions of the esophagus and understand the most common causes of esophageal dysmotility. Pediatric gastroenterologists should be familiar with the pathophysiology and modes of presentation of gastroesophageal reflux disease (GERD) and how it is distinguished from physiologic gastroesophageal reflux. They should understand the differential diagnosis of GERD, its evaluation (including pH monitoring, esophageal impedance monitoring, and endoscopy with biopsies), and treatment options (including lifestyle changes, pharmacologic therapy, and surgical interventions).

Pediatric gastroenterologists should be able to recognize normal and abnormal defecation patterns in children, from newborns to adolescents. Pediatric gastroenterologists should understand the causes of chronic constipation and fecal incontinence and know when diagnostic studies are indicated. They should understand the approach to treatment, including lifestyle changes, diet, and medications. They should be able to establish an appropriate evaluation plan that includes laboratory studies to identify complicating factors, imaging studies, and diagnostic tests. Pediatric gastroenterologists should be able to define areas of concern or create a problem list and develop a



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clear and specific approach for treatment and evaluation of each entity. Patient care also should include emphasis on appropriate collaborations with other members of the health care team.

Because acid peptic diseases are among the most common conditions treated in pediatric gastroenterology practice, pediatric gastroenterologists require comprehensive exposure to the diagnosis and management of these conditions and should have a thorough understanding of their pathophysiology. Pediatric gastroenterologists should understand the anatomy, physiology, and development of the esophagus, stomach, and duodenum as they relate to acid peptic conditions. Pediatric gastroenterologists should understand the natural history, epidemiology, presentation, and complications of acid peptic diseases and GERD. They should be familiar with the extraesophageal manifestations of GERD. Pediatric gastroenterologists should be knowledgeable regarding differences in presentation of conditions in the differential diagnosis of acid peptic diseases, including the following: functional dyspepsia, eosinophilic esophagitis, infectious esophagitis, gastritis, other causes of GI tract inflammation (e.g., Crohn's Disease, celiac disease), eating disorders, and symptom falsification (by the patient or the patient's caregiver). Other non-GI causes of vomiting including CNS disorders (leading to increased intracranial pressure), metabolic disorders, and anatomical obstruction should also be considered.

Pediatric gastroenterologists must be proficient in the evaluation of acid peptic diseases and should have a complete understanding of all diagnostic approaches for acid peptic disorders in children, including indications, contraindications, benefits, costs, limitations, and interpretation. Pediatric gastroenterologists should understand the treatment of acid peptic diseases including potential benefits and risks of each option.

Curricular Components That Support the Functions of the EPA

1. Obtaining accurate and complete information sufficient to develop a differential diagnosis and management plan
 - Obtains a detailed, complete, and accurate history and physical exam focused on the appropriate systems for patients referred with gastrointestinal and liver disorders
 - Accurately assesses nature, acuity, and severity of the clinical problem
 - Accurately interprets data such as laboratory and stool evaluation
 - Accurately interprets radiology and pathology test results
 - Develops a comprehensive differential diagnosis and assessment of medical issues
 - Devises a detailed and comprehensive treatment plan for each patient
 - Orders necessary and appropriate laboratory and diagnostic tests and procedures in light of the clinical presentation and formulates a treatment plan based on the diagnosis
 - Follows up and interprets all laboratory data and test results
 - Develops and carries out patient management plans
 - Demonstrates use of available evidence to investigate, evaluate, and improve the care of patients with gastrointestinal disorders
2. Demonstrating knowledge of diseases/conditions/symptoms common to pediatric gastroenterology, hepatology, and nutrition
 - Demonstrates knowledge of established and evolving biomedical, clinical, and epidemiological sciences of gastrointestinal, liver, and nutritional disorders and pancreatic disorders as well as the application of this knowledge to patient care



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- Knows and understands symptoms that are not specific to a disease but represent variation of normal in a healthy child's life
 - Demonstrates knowledge of the pathophysiology of a broad range of common outpatient pediatric gastrointestinal diseases and functional problems (including vomiting, diarrhea, abdominal pain, constipation, and failure to thrive) as described in the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN) guidelines
 - Knows and understands the therapies for the treatment of a broad range of common outpatient pediatric gastrointestinal disease processes and functional disorders (including vomiting, diarrhea, abdominal pain, constipation, and failure to thrive) as well as the role of nutritional therapy and surgical intervention
 - Knows and understand the diagnostic workup and treatment of common outpatient pediatric liver disease disorders including hyperbilirubinemia, jaundice, and elevated liver enzymes in the neonate, child, and adolescent
 - Knows and understands the diagnostic workup of pancreatic disorders including pancreatic insufficiency and pancreatitis
 - Knows and understands the workup and can differentiate GI causes of vomiting including acid-peptic disorders, cyclic vomiting syndrome, and rumination syndrome
 - Demonstrates knowledge of clinical and translational research
 - Develops the ability to use online information resources, courses, and national and regional organization websites pertaining to pediatric gastroenterology
3. Communicating management plan to patients, their families, and caregivers
- Communicates management plans with patient, family, primary physician, resident physicians, nursing staff, nutrition support team, and other ancillary health service providers
 - Preserves patient confidentiality
 - Provides emotional, social, and culturally sensitive support to patients and families with gastrointestinal disorders
4. Educating patients, their families and caregivers, and other health professionals about the disease process and management plan
- Provides education to patients and families concerning the pathophysiology and manifestations of their gastrointestinal disease process. Discusses the proper use of prescribed medications including potential adverse effects
 - Provides education to patients and families concerning symptoms that are normal in a healthy child's life and how these symptoms are likely not related to a disease
 - Enables patients to be comfortable asking about their disease or medications by exhibiting empathetic listening skills
 - Ensures that patients understand the correct way to take their prescribed medicines
 - Ensures patient/parents know how to contact their physician if questions arise or if there is a change in condition
 - Prepares for and appropriately transitions care from pediatric to adult health care systems
 - Interacts with faculty and colleagues to discuss evaluations and patient outcomes and incorporates feedback into promoting professional growth and engages in quality improvement projects for practice improvement



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- Educating primary care providers and health care professionals on the cause, treatment, and clinical course of common GI, liver, pancreatic, and nutritional disorders
5. Adapting management plan to changing clinical information
- Performs continuing monitoring of patients to evaluate safety and efficacy of observations and treatment plan as instituted; orders additional studies and/or adjusts therapy as clinically indicated
 - Knows and understands that clinical practice guidelines are suggestions for clinical care and may be flexible and evolve with time
6. Communicating and providing consultation to referring physicians and other health care providers
- Works to provide consultative services for patients with coexisting gastrointestinal disorders and other medical needs
 - Communicates management plans to referring physicians and jointly manages patients

Problems that **generally** require further consultation where the role of the subspecialist is to recognize, provide preliminary evaluation, and refer/co-manage

- Surgical referral for surgical placement of gastrostomy if percutaneous endoscopic gastrostomy (PEG) tube not indicated or not performed by gastroenterologists at the institution, or other surgical treatment
- Referral for advanced motility studies, typically to a colleague in pediatric gastroenterology with advanced motility training
- Referral to psychiatry or psychology or biofeedback for management of stress or other psychological issues which may often accompany functional GI disease

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