

Entrustable Professional Activity

1. Title: Care for infants, children, and adolescents with common outpatient GI, liver/biliary, pancreatic and nutritional issues

2. Description of Activity

Pediatric gastroenterologists entering into unsupervised practice are able to diagnose and manage common gastrointestinal complaints (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 functions required of this activity include:

1. Obtain accurate and complete information sufficient to develop a differential diagnosis and management plan
2. Knowledge of diseases common to pediatric gastroenterology, hepatology and nutrition
3. Communicate management plan to patients, their families and care givers
4. Educate patients, their families and care givers, and other health professionals about the disease process and management plan
5. Adapt management plan to changing clinical information
6. Communicate and provide consultation to referring physician and other health care providers.

3. Domains of Competence (Judicious Mapping)

- Patient Care
- Medical Knowledge and Diagnostic Skills Required (from Training Guidelines)
- Practice Based Learning
- Interpersonal Skills
- Professionalism
- System-based Practice
- Personal and Professional Development

4. Competencies within each domain critical to entrustment decision (From Pediatric Milestones Document)

PC 1, 4, 6, 10
MK 1, 2
PBLI 9
ICS 5
SBP 3, 7

5. Curriculum - List Specific Knowledge, skills and attitudes needed to execute EPA

Trainees must have a basic and 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, trainees in pediatric gastroenterology require comprehensive exposure to the diagnosis and treatment of these disorders and their complications, as well as a thorough understanding of their pathophysiology. Trainees in pediatric gastroenterology should understand the types and current classification of FGID and the Rome III criteria. They should be familiar with the epidemiology of FGID and the natural history of these disorders. Trainees 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. Trainees 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.

Trainees should know the anatomy and innervation of the different portions of the esophagus and understand the most common causes of esophageal dysmotility. Trainees 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 fundoplication).

Trainees in pediatric gastroenterology should be able to recognize normal and abnormal defecation patterns in children, from newborns to adolescents. Trainees 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. Trainees should be able to define areas of concern or a problem list and develop a 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, trainees in pediatric gastroenterology require comprehensive exposure to the diagnosis and management of these conditions and should have a thorough understanding of their pathophysiology. Trainees in pediatric gastroenterology should understand the anatomy, physiology, and development of the esophagus, stomach, and duodenum as they relate to acid peptic conditions. They also should have a clear understanding of the pathophysiology of acid peptic disease in the esophagus, stomach, and duodenum. Trainees 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. Trainees 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 (eg, CD, celiac disease), eating disorders, and symptom falsification (by the patient or the patient's caregiver). Other non-GI causes of vomiting including serious disorders as brain tumors, metabolic disorders, and anatomical obstruction should also be considered.

Trainees 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. Trainees should understand the treatment of acid peptic diseases including potential benefits and contraindications to each.

Patient Care

1. Obtain a detailed, complete and accurate history and physical exam focused on the appropriate systems for patients referred with gastrointestinal and liver disorders.
2. Accurately assess nature, acuity and severity of the clinical problem.
3. Accurately interpret lab data such as laboratory and stool evaluation.
4. Accurately interpret radiology and pathology test results.
5. Provide a comprehensive assessment of the medical and issues that must be addressed for each patient.
6. Devise a detailed and comprehensive treatment plan for each patient.
7. Order necessary and appropriate laboratory and diagnostic tests in light of the clinical presentation and formulate a treatment plan based on the diagnosis.
8. Follow up and interpret all laboratory data and test results.
9. Perform continuing evaluation of patients to evaluate safety and efficacy of observations and treatment plan as instituted; order additional studies and/or adjust therapy as clinically indicated.
10. Develop and carry out patient management plans and communicate with patient, family, primary physician, resident physicians, nursing staff, nutrition support team and other ancillary health service providers.
11. Provide education to patients and families concerning the pathophysiology and manifestations of their gastrointestinal disease process. Discuss the proper use of prescribed medications including potential adverse effects.

Medical Knowledge

1. Demonstrate knowledge of established and evolving biomedical, clinical and epidemiological sciences of gastrointestinal, liver and nutritional disorders, as well as the application of this knowledge to patient care.
2. Demonstrate knowledge of the pathophysiology of a broad range of common outpatient pediatric gastrointestinal diseases and functional problems (Vomiting, diarrhea, abdominal pain, constipation, and failure to thrive) as described in the NASGHAN guidelines
3. Understand the therapies for the treatment of a broad range of common outpatient pediatric gastrointestinal disease processes and functional disorders (vomiting, diarrhea, abdominal pain, constipation, and failure to thrive) including the role of nutritional therapy and surgical intervention.
4. Understand the diagnostic workup and treatment of common outpatient pediatric liver disease disorders including infant hyperbilirubinemia, jaundice, and elevated liver enzymes

Practice Based Learning

1. Demonstrate use of available evidence to investigate, evaluate and improve the care of patients with gastrointestinal disorders.
2. Understand principles of evidence-based medicine.
3. Understand concept of cost-benefit analysis.

4. Understand that clinical practice guidelines are suggestions for clinical care and may be flexible and evolve with time.
- 5 Explain clinical decisions in the context of evidence based medicine
- 6 Demonstrate knowledge of research that has been performed into patient care, diagnosis and pathophysiology
- 7 Develop proficiency in the use of on-line information resources, courses, national and regional organization websites pertaining to Pediatric Gastroenterology.
- 8 Interact with faculty and colleagues to discuss evaluations and incorporate feedback into promoting professional growth and practice improvement

Interpersonal Skills

1. Creation of therapeutic relationship with patients and parents.
2. Ensuring patients understand the rationale for the prescribed treatment
3. Enabling patients to be comfortable asking about their disease or medications by exhibiting empathetic listening skills.
4. Ensuring that patients understand the correct way to take their prescribed medicines.
5. Ensure patient/parents know how to contact their physician if questions arise or if there is a change in condition.

Professionalism

1. Demonstrate a commitment to carrying out professional responsibilities with adherence to ethical principles
2. Demonstrate good practices related to patient confidentiality.
3. Provide emotional, social and culturally sensitive support to patients and families with gastrointestinal disorders
4. Demonstrate compassion, integrity and respect for both patients and other health care professionals.
5. Demonstrate sensitivity and responsiveness to patients and their families from diverse backgrounds regardless of age, culture, disabilities, ethnicity, gender and sexual orientation
6. Complete all consults, medical records and patient care activities in a timely manner.
7. Respect patient's privacy and autonomy

System-based Practice

1. Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.
2. Practice high-quality fiscally responsible and cost-effective health care by demonstrating consideration of costs to the patients' families and the system in recommending diagnostic tests, treatments, and follow-up management
3. Advocate for patients within the health care system
4. Work to provide other consultative services for patients with gastrointestinal disorders with other medical needs

Personal and Professional Development

1. Demonstrate trustworthiness that makes colleagues feel secure when one is responsible for the care of their patients
2. Provide leadership skills that enhance the health care delivery system with the ultimate intent of improving care of patients
3. Demonstrate self-confidence that puts patients, families and members of the health care team at ease

4. Recognize that ambiguity is part of clinical medicine and respond by utilizing appropriate resources when dealing with uncertainty

6. Assessment Procedure

Quick Summary of EPA

End-of-Training EPA	Step 1 Description and Tasks	Step 2 Domains of Competence and Competencies within each Domain Critical to Entrustment Decisions		Step 3 Assessment Methods/Tools
1. Care for the infant, child and adolescent who presents with common outpatient gastrointestinal problems (vomiting, diarrhea, abdominal pain, constipation, and failure to thrive).	Summary: Pediatric gastroenterologists entering into unsupervised practice are able to diagnose and manage common gastrointestinal complaints (vomiting, diarrhea, abdominal pain, constipation and failure to thrive). The tasks required: <ul style="list-style-type: none"> • Obtain accurate and complete information sufficient to develop a differential diagnosis and management plan • Knowledge of diseases common to pediatric gastroenterology • Communicate management plan to patients, their families and care givers 	Patient Care (PC)	1, 2, 4-9	Chart stimulated recall Chart audits Direct observations Standardized patient In-training examination 360 Global Rating Patient Survey Simulation Portfolios
		Medical Knowledge (MK)	1-2	
		Practice-Based Learning & Improvement (PBLI)	1, 5	
		Interpersonal & Communication Skills (ICS)	1, 2, 5, 6	
		Professionalism (P)	1, 2, 5	
		Systems-Based Practice (SBP)		

	<ul style="list-style-type: none">• Educate patients, their families and care givers, and other health professionals about the disease process and management plan• Adapt management plan to changing clinical information• Provide consultation to referring physician and other health care providers	Personal and Professional Development (PPD)		
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EPA Title: Diagnostic and Therapeutic Approach to Common Outpatient GI and Liver Issues in the Pediatric Patient

Level 1	Level 2	Level 3	Level 4	Level 5
<p>Perform history and physical exam in children presenting with common outpatient GI and liver issues.</p> <p>Identify classic features of constipation</p> <p>Identify classic features of gastroesophageal reflux disease.</p> <p>Identify jaundice and understand the possible pathogenesis of infant jaundice</p> <p>Identify common outpatient GI disorders including FTT, diarrhea, constipation, reflux, gastritis, FGIDs,</p> <p>Identify common outpatient Liver disorders including infant hyperbilirubinemia, abnormal liver enzymes, and NAFLD</p> <p>Develop a differential diagnosis for diarrhea</p>	<p>Understand the natural history, epidemiology and pathogenesis of common gastrointestinal disorders including childhood constipation, reflux and functional GI disorders</p> <p>Understand the pathogenesis of infant hyperbilirubinemia and perform appropriate diagnostic workup for infant cholestasis</p> <p>Develop an appropriate initial diagnostic plan and management for common outpatient GI and Liver disorders including laboratory evaluation, endoscopy, and imaging</p> <p>Basic education to families and children regarding diagnosis and treatment.</p> <p>Recognize signs and symptoms that suggest an organic process</p> <p>Develop a diagnostic and management plan for infant cholestasis in a timely manner</p>	<p>Understand anatomy and physiology and innervation of the enteric nervous system</p> <p>Interpret tests ordered including endoscopy, pathology, imaging, impedance/pH and other modalities</p> <p>Understand and apply Rome criteria to the diagnosis and management of functional GI disorders</p> <p>Continuously re-evaluate diagnosis and management plan based on patient clinical and therapeutic response</p> <p>Advanced education to families and children regarding diagnosis and therapeutic options.</p> <p>Understand etiology and pathogenesis of elevated liver enzymes throughout childhood and perform appropriate diagnostic workup and management</p>	<p>Lead a multi-disciplinary team – nutritionist, surgeon, nurses, psychologists, and support staff as applicable</p> <p>Apply QI, Best Practices, and scientific evidence to the diagnosis and management of children with GI and Liver outpatient disorders</p> <p>Recognize the need for referral of complicated GI and Liver patients with outpatient issues to institutions with specific expertise (ie motility center, etc)</p> <p>Recognize liver disease that may present as an outpatient including but not limited to Wilson’s, Autoimmune liver disease, NAFLD, Gallstones, CF, and viral hepatitis</p> <p>Understand basic motility testing as it pertains to FGIDs including ARM</p>	<p>Participate in scholarly activity related to functional and common GI disorders</p> <p>Present research findings at a national meeting in oral format</p> <p>Perform advanced motility testing including antro-duodenal motility and colonic motility</p> <p>Be invited to speak at a regional meeting or grand rounds on functional and common GI or Liver disorders</p>

Training / Expertise Level

Entrustment Level

Execution with direct proactive supervision

Execution with reactive supervision (on request)

Supervision at distance post hoc supervision

Entrustment, ready for unsupervised practice

Supervision of others junior colleagues