Entrustable Professional Activity

1. Title: Care of infants, children and adolescents with congenital anomalies/diarrhea, GI infections, and intestinal failure/transplant

2. Description of Activity:

   Practicing subspecialists must be trained in congenital anomalies and congenital diarrhea, some of which may result in short bowel syndrome. Subspecialists must be trained to manage short bowel syndrome and understand intestinal failure and intestinal transplantation. Subspecialists must be able to diagnose and treat a variety of GI infections and bacterial overgrowth in various settings.

   This wide differential of disorders also spawns a plethora of diagnostic exams. A pediatric gastroenterologist needs to be able to order the pertinent exams and come to a diagnosis both expeditiously and effectively. While many of the diagnostic exams are routine, some are very specialized and require expertise in their interpretation. Depending on the eventual diagnosis, gastroenterologists will need to manage an array of diseases, many of them, with considerable complexity. Given the multi-system nature of these diseases, there must be coordination between other subspecialties including pulmonologists, allergists/immunologists, endocrinologists, geneticists, surgeons, radiologists, and pathologists. Due to the chronicity and complexity of the illnesses, gastroenterologists will need to coordinate a multidisciplinary team into the care of the patient and family including nutritionists, advanced practice nurses, home care agencies, child life specialists, social workers and psychologists when available. Gastroenterologists must be comfortable practicing family centered care and advocating for the patient.

   The functions required of this activity include:
   1. Recognize and diagnose children with suspected congenital anomalies, GI infections and intestinal failure/short bowel syndrome in a variety of clinical presentations
   2. Understand and apply epidemiology, pathogenesis, and natural history of congenital anomalies, GI infections and intestinal failure/short bowel syndrome to the care of patients.
   3. Interpret and apply basic/translational research to care of patients with congenital anomalies, GI infections and intestinal failure/short bowel syndrome.
   4. Manage children and adolescents with congenital anomalies, GI infections and intestinal failure/short bowel syndrome including acute presentations and emergencies as well as long-term management of these complex chronic diseases.
   5. Educate caretakers/families and children on congenital anomalies, GI infections and intestinal failure/short bowel syndrome including cause, treatment, and clinical course.
   6. Lead and coordinate care for children/adolescents with congenital anomalies, GI infections and intestinal failure/short bowel syndrome within the medical system and the community.

3. Domains of Competence (Judicious Mapping)
   - __X__ Patient Care
   - __X__ Medical Knowledge and Diagnostic Skills Required (from Training Guidelines)
   - __X__ Practice Based Learning
   - __X__ Interpersonal Communication

__X__Professionalism
__X__System-based Practice
__X_Personal and Professional Development

4. Competencies within each domain critical to entrustment decision:

    PC 2, 7, 12
    MK 1, 2
    PBLI 3, 6
    ICS 1, 3
    P 4
    SBP 2

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

Knowledge:
The fellow must have a basic, broad understanding of the wide variety of congenital GI issues, GI infections, and short bowel syndrome. An understanding of the pathophysiology of congenital gastrointestinal diseases including congenital diarrhea, congenital anomalies, NEC, and other conditions that can result in intestinal failure.

Skills:

The fellow must be able to care for all ages and lead a multidisciplinary team in complex conditions such as short bowel syndrome. The fellow must display life-long learning skills in these areas and apply quality improvement initiatives.

Attitudes:

The fellow must demonstrate a caring and empathetic attitude towards patients and families.

Patient Care

1. Gather essential and accurate information about the patient.
2. Interview patients and families to obtain a complete picture of congenital issues, nutritional intake, infection signs/symptoms and medical history including maternal and surgical history.
3. Make informed decisions in diagnostic work up for congenital disorders, congenital diarrhea, SBS and GI/CVL infections.
4. Initiate recommendations for management and treatment of GI infections.
5. Provide anticipatory guidance for expected course of treatment plan.

Medical Knowledge

1. Demonstrate knowledge of diagnostic tests including stool exams for pathogens, occult blood, reducing substances, stool pH, stool fat, stool anti-trypsin, lactoferin, and calprotectin.

2. Understand imaging of the GI tract for anatomical abnormalities.
3. Understand the variety of congenital anatomic abnormalities, their presentation, treatment and major complications including but not limited to gastroschisis, TEF, and VACTERL.
4. Understand congenital diarrhea including osmotic vs. secretory diarrheas and steatorrhea.
5. Demonstrate knowledge of the pathophysiology of short bowel syndrome and associated issues, such as dumping syndrome, malabsorption, small intestinal bacterial overgrowth and D-lactic acidosis.
6. Understand the management of intestinal failure, the principles of intestinal rehabilitation, indications for intestinal transplant and subsequent management.

Practice Based Learning

1. Demonstrate use of available evidence to investigate, evaluate and improve the care of patients with SBS, congenital anomalies and GI infections.
2. Understand principles of evidence-based medicine, as applied to the management of SBS, congenital anomalies and GI infections.
3. Understand the concept of cost-benefit analysis, for both outpatient clinic management and intensive inpatient therapy.
4. Understand that clinical practice guidelines are suggestions for clinical care and may be flexible and evolve with time.
5. Interact with faculty and colleagues to discuss evaluations of complex patients and incorporate feedback into promoting professional growth and practice improvement.

Interpersonal and Communication Skills

1. Effectively communicate disease information, treatment plan and outcome to patients and their families.
2. Effectively communicate with other medical professionals involved in the care of the patient.
3. Work effectively as a member or leader of a health care team coordinating care of the patient.
4. Act in a consultative role to other physicians and health care professionals.
5. Create a therapeutic relationship with patients and care providers.
6. Create a comfortable environment where parents can share an honest history and question/concerns/ideas.
7. Ensure patients understand the rationale for recommended therapies, including reframing misconceptions.

Professionalism

1. Demonstrate good practices related to patient confidentiality.
2. Provide emotional, social and culturally sensitive support to patients and families during evaluation.
3. Complete consults, medical records and patient care activities in a timely manner.
4. Respect patient's privacy and autonomy.
5. Show understanding of disorders related to low socioeconomic status and food insecurity.

System-based Practice

1. 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.

2. Advocate for patients within the health care system, particularly those in resource poor settings.
3. Understand the link between early and effective management of diarrheal disorders and prevention of secondary healthcare costs later in life.
4. Coordinate and manage homecare services.

Personal and Professional Development (this section should be removed since the competency was removed)

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.
5. Integrate patient's personal circumstances (cultural beliefs, economic situation, proximity to care) into construction of a health care management plan.

6. Assessment Procedure

7. Basis for formal entrustment decisions: At least two clinicians (either attending gastroenterologist or nurse practitioner) must have observed at least 10 comprehensive assessments, including intake history, physical exam, analysis of laboratory data. Ten endoscopic exams will be witnessed as well as reading of the same histology when available. The same observations will be made on how the fellow communicates to the patient and family. Findings of these observations should then be communicated on a bi-annual basis to the program director.

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
Care of Infants, Children and Adolescents with Congenital Anomalies/Diarrhea, GI Infections, and Intestinal Failure/Transplant	Summary: Pediatric gastroenterologists entering into unsupervised practice will be able to perform a comprehensive evaluation in a wide variety of clinical settings, and subsequently will provide realistic diagnostic and management plans to patients and caretakers. The tasks required: • Obtain accurate and complete history and physical exam • Understand embryology, epidemiology, pathogenesis, diagnosis and treatment of congential anomalies, GI infections, and short bowel syndrome • Communicate management plans to patients, their families and care givers • Educate patients, their families and care givers, and other health professionals • Adapt management plan to changing clinical information • Provide consultation to referring physician and other health care providers	Patient Care (PC)	1, 4-7, 9-11	Direct observations In-training examination 360 Global Ratings of Live Performance Standardized Patient Examination Portfolios (360 or multisource evaluations?)
		Medical Knowledge (MK)	1-2	
		Practice-Based Learning & Improvement (PBLI)	1, 5, 10	
		Interpersonal & Communication Skills (ICS)	1, 2, 4, 6	
		Professionalism (P)	1, 4-5	
		Systems-Based Practice (SBP)	2, 5	
		Personal and Professional Development (PPD)		

EPA Title: Care of Infants, Children and Adolescents with Congenital Anomalies/Diarrhea, GI Infections, and Intestinal Failure/Transplant

Level 1	Level 2	Level 3	Level 4	Level 5
Performs history and physical exam in children presenting with congenital anomalies and/or congenital diarrhea Understand the epidemiology and pathogenesis of common GI infections including viral, bacterial, fungal and parasitic causes of diarrhea Recognize signs and symptoms of necrotizing enterocolitis (NEC) in the premature infant Recognize signs and symptoms of malabsorption related to anatomic or infectious etiology	Understand the epidemiology and embryology of congenital anomalies including TEF, gastroschisis, omphalocele, VACTERL, intestinal web/atresia, Meckel diverticulum, malrotation Recognize presentation and develop an appropriate initial diagnostic plan and treatment for congenital anomalies Understand the variety of diagnostic tests for GI infections including stool studies and laboratory evaluation Understand diagnosis and management of bacterial overgrowth Recognize CVL infections and their treatment and prevention in children with CVL access	Understand treatment of GI infections including indications for and against treatment and options for children refractory to standard treatment Understand the epidemiology and pathogenesis of NEC and current theories for the cause and prevention Management of diarrheal conditions within the hospital setting including dumping Management of complex surgical patients with ostomies, other anatomic alterations, TEF, etc. Recognition of Meckel's diverticulum as the cause of GI bleeding Understand rare causes of diarrhea (gastrinoma, VIPoma) Understand autoimmune causes of diarrhea including IPEX and other autoimmune enteropathies	Manage infants/children with short bowel syndrome and intestinal failure Advanced counseling of parents and children with short gut syndrome Lead or participate in a multi-disciplinary team – nutritionist, surgeon, nurses, psychologists, and support staff as applicable especially in the setting of short bowel syndrome and congenital anomalies Understand congenital secretory diarrheas (Congenital sodium/chloride diarrhea, tufting, microvillous inclusion, etc) Understand congenital osmotic diarrhea (glucose-galactose malabsorption, congenital sucrose-isomaltase) Understand causes of steatorrhea (abetalipoproteinemia, bile acid malabsorption, lipase deficiency, chylomicron retention disease)	Advanced management of short bowel syndrome and intestinal transplantation Perform fecal bacteriotherapy for children with unresponsive CDiff Participate in scholarly activity related to congenital anomalies, GI infections, or intestinal failure/SBS Present research findings at a national meeting in oral format Be invited to speak at a regional meeting or grand rounds

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 ☐