

Entrustable Professional Activity

1. Title: Care of infants, children and adolescents with nutritional issues, deficiencies, and obesity
2. Description of Activity:

Fellows must be able to perform comprehensive nutritional assessments and provide counseling for families and primary care providers for patients with a variety of conditions leading to nutritional deficiencies/imbbalances. Nutrition and growth are essential components of standard Pediatric care, which Pediatricians monitor from the newborn nursery into young adulthood. Pediatric Gastroenterologists serve a key role as expert consultants in this field, establishing guidelines for general practitioners including standardized growth curves, recommended daily allowances for diet, vitamins and calories, and initial interventions for malnutrition and obesity. With the increased trend towards subspecialty referral for issues other than well-child care, gastroenterologists are often asked to see patients with failure to thrive, food allergies, celiac disease and obesity in their clinics. Often, a Pediatric Gastroenterologist and Registered Dietician will work together to counsel families on nutritional interventions (including diet and lifestyle changes) and follow these patients to track progress of their recommendations. Additionally, Pediatric Gastroenterologists must provide longitudinal care for patients with complex nutrition issues receiving nutritional support including oral supplementation, home tube feeding and/or home parenteral nutrition. These patients include but are not limited to infants and children with short bowel syndrome, pseudo-obstruction, developmental delay with associated feeding difficulties and protein losing enteropathy. Gastroenterologists provide nutritional consultation for patients throughout the general inpatient setting in the midst of both acute and chronic illness, making recommendations for both enteral and parenteral nutrition on the inpatient floors, in the nursery and in the intensive care units.

Nutritional assessments, whether in an ambulatory, in patient or intensive care setting, rely on a complete dietary history from the patient (or main caretaker), relevant medical history and examination, and a list of active medications. From this starting point, anthropometrics can be obtained and relevant labs can be gathered and assessed to complete the full assessment. Understanding of appropriate calculations for recommended daily intake of calories (including breakdown of protein, fat and carbohydrates), vitamins and micronutrients is used to formulate initial recommendations, which often vary based on the patient's acuity of illness and chronicity of disease. Subsequently, these recommendations must be skillfully related back to the patient (or caretakers) in language that they can understand and translate into practice.

The functions of this activity include:

1. Perform a complete nutritional assessment that includes dietary history, relevant medical history, anthropometrics, and any relevant laboratory evaluation
2. Perform necessary calculations for recommended daily intake of calories (including breakdown of protein, fat and carbohydrates), vitamins and micronutrients
3. Demonstrate application of nutritional aspects of chronic diseases and obesity including pathophysiology and epidemiology to the care of patients
4. Manage children/adolescents with diseases for which nutritional/dietary therapy is a mainstay of treatment including managing enteral/parenteral home feeding regimens
5. Educate parents and children on nutritional aspects of diseases as well as daily living and lifestyle
6. Lead and coordinate care in conjunction with other healthcare professionals including registered dieticians

3. Domains of Competence (Judicious Mapping)

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

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

PC 11, 13
MK 1
PBLI 5, 7
ICS 4
P 3
SBP 1, 4, 6
PPD 6

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

Knowledge:

The fellow must have a basic, broad understanding of all that goes into a comprehensive nutritional assessment, including obtaining a history of dietary/nutritional intake, plotting of past and current growth/anthropometrics on relevant and appropriate growth charts, reviewing existing laboratory studies and identification of malnutrition and other nutritional deficiencies. A variation of this framework can then be applied to all clinical settings, ranging from the outpatient consultation clinic to the inpatient setting. An understanding of the pathophysiology of common gastrointestinal diseases that lead to malnutrition, including Celiac disease, short bowel syndrome, and inflammatory bowel disease, is utilized in the creation of diagnostic and therapeutic management plans, which can then be set into motion and revised as clinically indicated.

Skills:

The fellow must be able to efficiently obtain a comprehensive diet history, using appropriate questions and lay terminology to help patients and caregivers accurately summarize nutritional intake. This history must then be combined with objective growth measurements and laboratory values to reflect the comprehensive nutritional status. From there, the fellow can outline a clear, feasible plan for intervention, allowing the family to ask questions and express their concerns about potential roadblocks to compliance. Clear documentation of the conversation must be provided to the patient and caretakers and plans for follow-up should always be set before the end of any visit.

Attitudes:

Talking about food is often wrapped in stigma, and food intake, both overeating and picky eating, is often a battleground between

children and caretakers. The fellow must understand the socioeconomic and cultural issues that influence nutritional choices and should take care to avoid stigmatizing patients who are underweight and overweight. To allow for entrustment to unsupervised practice, the trainee must show the willingness to patiently accept information from patients, synthesize with additional data, and then respond with a comprehensive management plan which takes into account and balances many key factors, including underlying disease process, patients/caretaker understanding of pathology, socioeconomic status, cultural beliefs, etc.

Patient Care (should we remove numbers 1, 3 and 4 to correlate with our judicious mapping?)

1. Gather essential and accurate nutritional information about the patient
2. Interview patients and families to obtain a complete picture of nutritional intake, including psychosocial, economic and environmental influences on dietary intake
3. Make informed decisions in diagnostic work up for malnutrition
4. Initiate initial therapeutic recommendations for nutritional deficiencies/imbbalances in the clinic and inpatient setting
5. Provide anticipatory guidance for expected course of treatment plan
6. Counsel patients and families on common road blocks that are likely to be encountered with recommended diet and medication changes

Medical Knowledge

1. Demonstrate knowledge of common measurements used in nutritional assessment, including recommended daily caloric allowances for growth (including carbohydrates, fat, protein) and plotting on relevant growth curves
2. Show facility with calculations for parenteral nutrition, including management of glucose infusion rate, electrolytes and fluids
3. 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
4. Understand and recommend the basic evaluation for common nutritional and vitamin deficiencies and toxicities
5. Describe common nutritional issues faced by children with common gastrointestinal disorders, including but not limited to IBD, celiac disease, cystic fibrosis, lactose intolerance, eosinophilic and other allergic intestinal disorders, chronic liver disease
6. Advanced understanding of hypercholesterolemia and hyperlipidemia/hypertriglyceridemia including prognosis and therapeutic options.

Practice Based Learning

1. Demonstrate use of available evidence to evaluate and optimize the care of patients with nutritional disorders.
2. Understand principles of evidence-based medicine, as applied to the management of nutritional deficiencies.
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 (such as home TPN patients) and incorporate feedback into promoting professional growth and practice improvement

Interpersonal and Communication Skills (would replace this with the interpersonal skills section from the pancreatitis module-first 3)

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. Creation of therapeutic relationship with patients and care providers.
5. Creation of a comfortable environment where parents can share an honest history about eating habits and dietary history
6. Ensuring patients understand the rationale for recommended nutritional changes, including reframing misconceptions the patient and family may have about which foods are truly “healthy” foods
7. Enabling patients to be comfortable asking questions and floating their own ideas.

Professionalism

1. Demonstrate good practices related to patient confidentiality.
2. Provide emotional, social and culturally sensitive support to patients and families during nutritional assessment
3. Avoid stigmatization of patients who are underweight or overweight
4. Complete all consults, medical records and patient care activities in a timely manner.
5. Respect patient’s privacy and autonomy
6. Show understanding of malnutrition and nutritional deficiency 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 nutritional issues (e.g., malnutrition – both under-nutrition and obesity) and prevention of secondary healthcare costs later in life

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

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
Care of Infants, Children and Adolescents with Nutritional Issues, Deficiencies, and Obesity.	<p>Summary:</p> <p>Pediatric gastroenterologists entering into unsupervised practice will be able to perform a comprehensive nutritional assessment in a wide variety of clinical settings, and subsequently will provide realistic diagnostic and management plans to patients and caretakers.</p> <p>The tasks required:</p> <ul style="list-style-type: none"> • Obtain accurate and complete nutritional/dietary intake history • Display basic knowledge of common illnesses that lead to malnutrition and specific nutritional deficiencies/excesses • Communicate management plans to patients, their families and care givers • Educate patients, their families and care givers, and other health professionals about healthy dietary intake for treatment of malnutrition and maintenance nutrition • 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)	(these numbers differ from the numbers listed in 4.)	

EPA Title: Care of Infants, Children and Adolescents with Nutritional Issues, Deficiencies, and Obesity.

Level 1	Level 2	Level 3	Level 4	Level 5
<p>Perform history and physical exam in children presenting with malnutrition (FTT, obesity, etc)</p> <p>Develop a basic initial diagnostic plan including assessment of caloric intake, laboratory evaluation, endoscopy, imaging and other tests as needed</p> <p>Understand and apply different growth curves in special populations</p>	<p>Understand the natural history, epidemiology pathogenesis of common diagnoses for failure to thrive</p> <p>Understand basic science processes of digestive enzymes, bile acids, and digestion/absorption of food</p> <p>Understand the major components and similarities/differences in infant, toddler, and specialty formulas</p> <p>Develop an appropriate initial diagnostic plan including dietary assessment, laboratory evaluation, endoscopy, imaging and other tests.</p> <p>Understand daily fluid, caloric, protein, fat and vitamin/mineral needs of infants and children</p> <p>Understand different types of enteral access</p> <p>Recognize signs and symptoms that suggest an organic process</p>	<p>Understand the major signs and symptoms of vitamin and mineral deficiencies and toxicity</p> <p>Understand vitamin repletion with medications and maintenance of vitamin status</p> <p>Develop an appropriate management plan for failure to thrive and obesity</p> <p>Recognize indications for enteral access and/or TPN initiation in children with a variety of disorders</p> <p>Educate patients and their families about enteral and parenteral access options</p> <p>Manage inpatient and outpatient TPN orders and labs and adjust TPN accordingly</p> <p>Continuously re-evaluate management plan for feeding/nutritional intervention based on patient clinical and therapeutic response</p>	<p>Advanced counseling of parents and children regarding nutritional aspects of diseases including hypercholesterolemia, hyperlipidemia, obesity, IBD, celiac, EoE, vitamin deficiencies</p> <p>Advanced understanding of hypercholesterolemia and hyperlipidemia/hypertriglyceridemia including prognosis and therapeutic options.</p> <p>Apply nutritional expertise into all facets of medical care within our specialty and through a wide variety of medical diagnoses and conditions</p> <p>Lead a multi-disciplinary team – nutritionist, surgeon, nurses, psychologists, and support staff as applicable</p> <p>Familiarity with common and unusual presentations of eating disorders</p> <p>Apply QI, Best Practices, and scientific evidence</p>	<p>Participate in scholarly activity related to Nutritional Issues, Deficiencies, and Obesity</p> <p>Present research findings at a national meeting in oral format</p> <p>Be invited to speak at a regional meeting or grand rounds on Nutritional Issues, Deficiencies, and Obesity</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

