

## Entrustable Professional Activity

1. Title: Care of infants, children, and adolescents with pancreatic disorders

2. Description of Activity

Pediatric gastroenterologists must be trained to care for children and adolescents with pancreatic disorders as well as have a cognitive understanding of the spectrum of pancreatic disease including differences in the disease processes that are inherent to children compared to adults.

The functions required of this activity include:

1. Understand the normal anatomy of the pancreas, including embryology and congenital variants
2. Understand the epidemiology, etiology, pathophysiology, natural history, prevention and management of pancreatic disorders
3. Obtain accurate and complete information sufficient to develop a differential diagnosis and management plan
4. Communicate management plan to patients, their families and care givers
5. Educate patients, their families and care givers, and other health professionals about the disease process and management plan
6. Adapt management plan to changing clinical information
7. 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 5, 9  
MK 1, 2  
PBLI 2, 8, 10  
ICS 2  
PPD 5, 8

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

**Knowledge:** Acute and chronic pancreatic diseases, including hereditary disorders occur in the pediatric population. Therefore 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 have a thorough cognitive understanding of the spectrum of pancreatic disease including epidemiology, etiology, pathophysiology, natural history and disease management. These diseases include acute pancreatitis and chronic pancreatitis, including hereditary and autoimmune pancreatitis. Genetic and metabolic pancreatic disorders that can affect both the endocrine and exocrine pancreatic function including cystic fibrosis, Schwachman-Diamond, and Johanson-Blizzard as well as other disorders of pancreatic dysfunction. In addition trainees must be familiar with the normal anatomy and embryology of the pancreas including structural variants (e.g. pancreatic divisum, annular pancreas and pancreatic agenesis).

**Skills:** The fellow must be able to care for pediatric patients of all ages with these conditions and unite a team of caregivers to provide exceptional patient care. The fellow must display skills of communication and life-long learning skills as it applies to pancreatic disease processes and disorders.

**Attitudes:** The trainee must be sensitive to a wide variety of patient's backgrounds and beliefs in their caring for children with pancreatic disease. The trainee must demonstrate a caring and empathetic attitude towards patients and families.

#### Patient Care

1. Obtain a detailed, complete and accurate history of pancreatic disorders and presentation of common pancreatic disorders such as acute and chronic pancreatitis as well as disorders of pancreatic exocrine dysfunction.
2. Perform a physical exam that would appropriately identify signs of pancreatitis and/or pancreatic insufficiency and related systemic manifestations
3. Accurately assess nature, acuity and severity of the clinical problem.
4. Provide a comprehensive assessment of the medical issues that must be addressed for each patient
5. Order necessary and appropriate laboratory and diagnostic tests in light of the clinical presentation and formulate a treatment plan based on the diagnosis
6. 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.
7. 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.
8. Provide education to patients and families concerning the pathophysiology and manifestations of their gastrointestinal disease process. Discuss the proper use of prescribed medications and/or interventions (eg. ERCP) including potential adverse effects.

#### Medical Knowledge

1. Understand the normal anatomy of the pancreas and congenital variants
2. Understand the physiology of pancreatic exocrine secretion of digestive enzymes, including the types of enzymes, their mechanisms of activation, regulation, and roles in digestion

3. Demonstrate knowledge of established and evolving biomedical, clinical and epidemiological sciences of pancreatic disorders, as well as the application of this knowledge to patient care.
4. Understand the epidemiology, etiology, pathophysiology, natural history, and management of acute and chronic pancreatitis
5. Demonstrate a basic understanding of the molecular genetics of pancreatic disease including but not limited to gallstone pancreatitis, hereditary pancreatitis and cystic fibrosis, their diagnosis and management
6. Understand the indications for and be able to interpret laboratory results in the diagnosis and management of pancreatic diseases
7. Understand the principles, utility, indications for and basic interpretation of all radiographic studies of the pancreas including their potential risks and benefits
8. Recognize therapeutic options for the treatment of pancreatic disease including the role of nutritional therapy, pain management and endoscopic, radiographic and surgical intervention.
9. Recognize the indications for invasive testing of the pancreas including EUS, ERCP and endoscopic management of pancreatic diseases

#### Practice Based Learning

1. Demonstrate use of available evidence to investigate, evaluate and improve the care of patients with pancreatic disorders.
2. Understand principles of evidence-based medicine, as applied to children with pancreatic disorders.
3. 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 in children with pancreatic disorders

#### Interpersonal 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

#### Professionalism

1. Demonstrate a commitment to carrying out professional responsibilities with adherence to ethical principles
2. Demonstrate good practices related to patient confidentiality.

#### 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

### 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
<p>1. Care for children and adolescents with pancreatic disease and pancreatic disorders</p>	<p>Summary:</p> <p>Pediatric gastroenterologists entering into unsupervised practice are able to diagnose and manage pancreatic disease and pancreatic disorders</p> <p>The tasks required:</p> <ul style="list-style-type: none"> <li>• Understand the normal anatomy of the pancreas, including embryology and congenital variants</li> <li>• Understand the epidemiology, etiology, pathophysiology, natural history, prevention and management of pancreatic disorders</li> <li>• Obtain accurate and complete information sufficient to develop a differential diagnosis and management plan</li> <li>• Communicate management plan to patients, their families and care givers</li> <li>• Educate patients, their families and care givers, and other health professionals about the disease process and management plan</li> <li>• Adapt management plan to changing clinical information</li> <li>• Communicate and provide consultation to referring physician and other health care providers</li> </ul>	Patient Care (PC)	1, 4-7, 9	<p>Chart stimulated recall Chart audits Direct observations In-training examination 360 Global Rating multisource Patient Survey Portfolios</p>
		Medical Knowledge (MK)	1-2	
		Practice-Based Learning & Improvement (PBLI)	1, 3, 6	
		Interpersonal & Communication Skills (ICS)	1, 3, 4	
		Professionalism (P)	1, 2	
		Systems-Based Practice (SBP)	2	
		Personal and Professional Development (PPD)		

EPA Title: Care of Infants, Children, and Adolescents with Pancreatic Disorders

Level 1	Level 2	Level 3	Level 4	Level 5
<p>Perform history and physical exam in children presenting with pancreatic disease</p> <p>Develop a basic initial diagnostic plan including laboratory evaluation, imaging and other tests as needed for acute and chronic pancreatitis</p> <p>Recognize signs and symptoms of pancreatic insufficiency</p> <p>Differentiate endocrine and exocrine pancreatic functions</p>	<p>Understand anatomy and embryology of the pancreas and the complications with pancreatic anatomic abnormalities (divisum, annular pancreas, etc)</p> <p>Understands the natural history, epidemiology and pathogenesis of pancreatic disorders (pancreatitis, pancreatic insufficiency, pancreatic masses)</p> <p>Develops an appropriate initial diagnostic and management plan for pancreatitis and interpret diagnostic tests</p> <p>Basic education to families and children regarding diagnosis and treatment of pancreatitis</p> <p>Recognize signs and symptoms that differentiate between an acute or chronic process, including hereditary pancreatitis and perform appropriate laboratory evaluation</p>	<p>Understand physiology of the pancreas including pancreatic exocrine secretion of enzymes</p> <p>Understand the molecular genetics of pancreatic disease</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 presentation and diagnostic approach to pancreatic masses</p> <p>Understand pancreatic enzyme replacement medications, doses, and side effects</p> <p>Recognize signs/symptoms and perform diagnostic testing for pancreatic insufficiency</p>	<p>Manage complex complications of pancreatitis including pseudocyst, hemorrhagic pancreatitis, necrotic pancreatitis</p> <p>Treat and monitor children with pancreatic insufficiency including those with CF</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</p>	<p>Participate in scholarly activity related to pancreatic disorders</p> <p>Perform ERCP and endoscopically manage pancreatic diseases</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 pancreatic 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