Entrustable Professional Activities
EPA 2 for Pediatric Gastroenterology

EPA 2: Care of Infants, Children, and Adolescents with Acute and Chronic Liver Diseases, Biliary/Cholestatic Diseases, Pancreatic Disorders, and Those Requiring Liver Transplantation

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

Practicing gastroenterologists/hepatologists must be trained to care for children and adolescents with acute and chronic hepatobiliary disease as well as liver transplantation and pancreatic disorders. Pediatric gastroenterologists/hepatologists need to be familiar with current knowledge of disease processes and presentations. Additionally, subspecialists should be able to manage acute issues as well as long-term chronic management including the transition of care.

The specific functions which define this EPA include:

1. Understanding and applying the epidemiology, pathophysiology, pathogenesis, and natural history of acute/chronic liver diseases, biliary diseases, liver transplantation, and pancreatic disorders
2. Interpreting and applying basic/translational and clinical research in hepatology, biliary, and pancreatic disorders to the care of patients
3. Recognizing and diagnosing children with suspected liver, biliary, and pancreatic disorders in a variety of clinical presentations
4. Managing children and adolescents with liver, biliary, pancreatic disorders, and liver transplantation including the acute presentations and emergencies as well as long-term management of complex chronic diseases
5. Educating parents and children on liver, biliary, and pancreatic diseases including cause, treatment, and clinical course
6. Leading, directing and coordinating care for children/adolescents with liver, biliary, and pancreatic diseases within the medical system and the community
Entrustable Professional Activities

EPA 2 for Pediatric Gastroenterology

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

Competencies Within Each Domain Critical to Entrustment Decisions*

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<td>Performing complete physical exams</td>
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<td>Counseling patients and families</td>
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Context for the EPA

Rationale/Scope of Practice: Pediatric gastroenterologists care for patients with acute and chronic liver and biliary disorders, some of which may require liver transplantation, and pancreatic disorders.

Acute and Chronic Hepatobiliary Diseases: Practicing subspecialists must be trained to care for children and adolescents with acute and chronic liver disease. Within the pediatric gastroenterology subspecialty, these relatively uncommon conditions account for a significant amount of morbidity and mortality. Pediatric gastroenterologists need to be familiar with current knowledge of liver disease processes. Additionally, subspecialists should be able to manage acute issues as well as long-term management of chronic illnesses including the transition of care. The diagnosis and treatment of acute and chronic liver disease requires the knowledge and understanding of anatomy, pathophysiology, epidemiology, and diagnosis/management of these diseases that include acute liver failure, chronic liver failure, viral hepatitis, autoimmune hepatitis, fatty liver disease, congenital liver diseases, hepatic tumors, infectious/drug-induced hepatitis, other liver conditions.

The diagnosis and treatment of diseases of the biliary tree, cholestatic liver disease, and metabolic liver disease compose a significant proportion of practice for pediatric gastroenterologists. Due to the relative rarity
of these conditions, pediatric gastroenterologists serve a key role as consultants to general pediatricians who encounter patients with signs/symptoms (e.g., jaundice, right upper quadrant (RUQ) pain) or findings (laboratory or radiographic abnormalities) suggestive of biliary/liver pathology. Pediatric gastroenterologists should be able to obtain key diagnostic information from patient history, physical examination and targeted studies (including labs, imaging, and procedures) to evaluate for biliary and liver pathology. Pediatric gastroenterologists planning clinical practice may choose to obtain proficiency with percutaneous liver biopsy to diagnose hepatobiliary pathology although not required, and some pediatric gastroenterologists may also work towards proficiency in endoscopic retrograde cholangiopancreatography (ERCP), though for most, the key proficiency will be appropriate referral to a center that performs ERCP on children. Additionally, pediatric gastroenterologists must provide longitudinal care for patients with disorders of diseases of the bile ducts, cholestatic liver disease, and metabolic liver disease. The pediatric gastroenterologist may serve as the point person in management in some of these rare diseases (e.g., biliary atresia, progressive familial intrahepatic cholestasis (PFIC), Alagille syndrome, biliary atresia, Crigler-Najjar syndrome, glycogen storage disease, and others), whereas they will be a part of a multidisciplinary team approach for others (e.g., cystic fibrosis, alpha-1 antitrypsin deficiency, mitochondrial disease).

Liver Transplantation: Pediatric gastroenterologists participate in the care of children and adolescents who will have or have undergone a liver transplantation. Pediatric gastroenterologists should have a complete understanding of acute and chronic liver conditions requiring transplantation. Pediatric gastroenterologists should be familiar with the indications for liver transplantation and participate in the pre-transplant workup and preparation as well as post-transplant care.

Pancreatic Diseases: Pediatric gastroenterologists must understand acute and chronic pancreatic diseases, including hereditary disorders that occur in the pediatric population. Pediatric gastroenterologists must be able to diagnose and treat pancreatic disorders and their complications, as well as demonstrate a thorough understanding of their pathophysiology. Pediatric gastroenterologists should have a thorough understanding of the spectrum of pancreatic disease including epidemiology, etiology, pathophysiology, natural history, and disease management. These diseases include acute, acute recurrent, and chronic pancreatitis, including hereditary pancreatitis, autoimmune pancreatitis, pancreatitis due to toxic/metabolic causes, and pancreatitis due to anatomical variants. 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 are also important considerations. In addition, pediatric gastroenterologists must be familiar with the normal anatomy and embryology of the pancreas including structural variants (e.g., pancreatic divisum, annular pancreas, and pancreatic agenesis).

Pediatric gastroenterologists 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 and must display skills of communication and lifelong learning skills. Pediatric gastroenterologists must be sensitive to a wide variety of patient’s backgrounds and beliefs in their caring for children with gastrointestinal disorders and must demonstrate a caring and empathetic attitude towards patients and families.