



Entrustable Professional Activities

EPA 5 for Pediatric Gastroenterology

EPA 5: Perform Medical Procedures Related to Gastrointestinal and Liver Disease for Screening, Diagnosis, and Intervention

Supervision Scale for This EPA

1. Trusted to observe or assist
2. Trusted to execute with direct supervision and coaching
3. Trusted to execute with indirect supervision for most simple and some complex cases
4. Trusted to execute with indirect supervision but may require discussion or direct supervision at critical portions for a few complex cases
5. Trusted to execute without supervision

Description of the Activity

Endoscopy is a significant component of gastroenterology practice. It is critical that trainees and future gastroenterologists are able to determine which patients are appropriate to undergo an endoscopic procedure, be able to perform a quality examination safely, and integrate the clinical presentation with the endoscopic findings in order to plan further management. Trainees should be aware of clinical situations that demand advanced endoscopic techniques (including hemostasis, polypectomy, feeding tube placement, dilation, injection, banding, foreign body removal) and should know when to ask for additional procedural support from a more seasoned endoscopist. The trainee must also be able to communicate endoscopic and pathological findings to the patient, family, and the referring physician in a timely fashion.

The specific functions which define this EPA include:

1. Demonstrating baseline knowledge about the procedure, including indications and contraindications, risks, costs and benefits, and anatomy
2. Understanding of the technical aspects of the procedure both pre- and post-procedure including sedation, antibiotics, and equipment
3. Performing the procedure in a safe and effective manner
4. Interpreting the procedure results and applying the results and findings to the management of the patient.
5. Communicating with the patient and/or family about the procedure including pre-procedure, informed consent, procedure results, and biopsy results
6. Communicating with health care professionals, including the referring provider, about the endoscopy/procedure including risks, findings, and management
7. Working with an interprofessional team to enhance safety and effectiveness of the procedure

Judicious Mapping to Domains of Competence

- Patient Care
- Medical Knowledge
- Practice-Based Learning and Improvement
- Interpersonal and Communication Skills



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- Professionalism
- Systems-Based Practice
- Personal and Professional Development

Competencies Within Each Domain Critical to Entrustment Decisions

PC 8:	Performing procedures
MK 1:	Demonstrate knowledge
PBLI 1:	Identifying gaps
PBLI 4:	Analyzing practice
ICS 6:	Managing medical records
SBP 3:	Incorporating cost awareness into care
SBP 5:	Working in interprofessional teams
PPD 1:	Engaging in help-seeking behaviors
PPD 7:	Demonstrating self-confidence

Context for the EPA

Rationale/Scope of Practice: The pediatric gastroenterologist must be familiar with indications and contraindications, risks and benefits, diagnostic results, and therapeutic outcomes for endoscopy and recognize endoscopic landmarks and differentiate normal from abnormal findings on gross endoscopy. Pediatric gastroenterologists must also be familiar with endoscopy equipment and its utilization for procedures and be able to appropriately integrate endoscopic results into the patient’s therapeutic clinical management plan.

Pediatric gastroenterologists must conduct a thorough examination of the upper and lower gastrointestinal tract, performing endoscopy safely, independently, and expeditiously and understand the set up and use of endoscopy equipment and documentation of the procedure effectively. They must recognize clinical situations that demand advanced endoscopic techniques and safely perform advanced procedures when appropriate. They must also recognize complications related to endoscopy and initiate appropriate management.

Pediatric gastroenterologists must understand their limits of technical skills and know when to ask for additional procedural support from a more experienced endoscopist. They must display appropriate stewardship of endoscopy equipment, transporting, cleaning, and storing endoscopes with care and following cues from staff about care of monitors and other endoscopy equipment. They should seek to understand flow and hierarchy of procedural units and put forth effort with patients and staff to ensure safe and efficient patient care, including obtaining informed consent from pediatric patients and parents and ensuring an adequate understanding of risks and benefits prior to procedure.

The population of patients cared for by the GI specialist ranges in age from the young infant to the young adult.

Curricular Components That Support the Functions of the EPA

1. Demonstrating baseline knowledge about the procedure, including indications and contraindications, risks, costs and benefits, and anatomy



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- Becomes familiar with indications and contraindications, risks and benefits, diagnostic results, and therapeutic outcomes for endoscopy including wireless capsule endoscopy
 - Becomes familiar with indications and contraindications, risks and benefits, diagnostic results, and therapeutic outcomes for liver biopsy
 - Becomes familiar with indications and contraindications, risks and benefits, diagnostic results, and therapeutic outcomes for non-endoscopic procedures including esophageal impedance-pH monitoring, esophageal and antroduodenal manometry, anorectal and colonic manometry, and diagnostic breath testing
 - Knows and understands typical anatomy, as well as anatomic abnormalities
 - Considers cost/benefit analysis when making recommendations for diagnostic and/or therapeutic procedural interventions
2. Understanding of the technical aspects of the procedure both pre- and post-procedure including sedation, antibiotics, and equipment
- Obtains a basic anesthesia exposure history and counsels pediatric patient and family on pre-procedure requirements for endoscopy
 - Becomes familiar with sedation modalities available for endoscopy and selects appropriate anesthesia plan for a given patient situation consulting with anesthesia for complex cases
 - Selects relevant endoscopy equipment (accounting for age, size, condition) for procedures and sets up and uses equipment without aid from endoscopy staff/supervisors
 - Becomes familiar with procedures to clean, maintain, and store endoscopy equipment
 - Becomes familiar with standards for infection control, monitoring, quality improvement
 - Knows and understands how an endoscopy unit is run and how it interfaces with inpatient/outpatient practices and other services
3. Performing the procedure in a safe and effective manner
- Performs routine endoscopy and other routine procedures (North American Society for Pediatric Gastroenterology, Hepatology and Nutrition [NASPGHAN] Training Guidelines Level 1 Procedures) safely and independently including esophagogastroduodenoscopy (EGD), foreign body removal, colonoscopy, polypectomy, and bleeding control, including intubation of the esophagus and pylorus, direct visualization of the stomach and the duodenum to the third portion, and intubation of the cecum and terminal ileum, using proper technique and ergonomic considerations
 - Performs **optional** complex or new procedures (NASPGHAN Training Guidelines Level 2 Procedures) safely and independently **if trained**, including some/all of the following: percutaneous endoscopic gastrostomy (PEG) placement, dilation, wireless capsule endoscopy deployment, endoscopic placement of transpyloric feeding tubes, enteroscopy, capsule pH probe deployment, percutaneous liver biopsy, and rectal biopsy
 - Perform **optional** advanced procedures (Level 3) safely and independently **if trained**, including some/all of the following: endoscopic retrograde cholangio-pancreatography (ERCP), stent placement, balloon enteroscopy, and/or endoscopic ultrasound (EUS)
 - Recognizes endoscopic/anatomic landmarks and differentiates normal from abnormal findings on gross endoscopy
 - Performs therapeutic procedures as indicated including bleeding control and polypectomy



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- Documents endoscopic procedure (including consent, anesthesia, findings and interventions, and subsequent management plan) in an accurate and timely fashion
 - Recognizes complications related to endoscopy and knows how to manage them
 - Recognizes when assistance is needed during a procedure and asks for help
4. Interpreting the procedure results and applying the results and findings to the management of the patient
- Integrates endoscopic findings or therapy into the patient's clinical management plan
 - Knows and understands the use of procedures to monitor diseases, including eosinophilic esophagitis and inflammatory bowel disease
5. Communicating with the patient and/or family about the procedure including pre-procedure, informed consent, procedure results, and biopsy results
- Perform essential informed consent elements prior to endoscopy, covering indications, alternatives, and risks and benefits, and answering questions from pediatric patient and family
 - Communicate with the patient, family, and health care team members regarding endoscopic findings
 - Communicate with the patient and family regarding procedural complications
6. Communicating with health care professionals, including the referring provider, about the endoscopy/procedure including risks, findings, and management
- Communicates with the primary physician regarding procedure indications, findings, and any change in management
 - Communicates with health care team members regarding endoscopic findings, complications, and management of disease
7. Working with an interprofessional team to enhance safety and effectiveness of the procedure
- Works within the interprofessional team during endoscopy including anesthesia staff, surgical/endoscopy staff, and pathology
 - Works within the interprofessional team to enhance safety within the endoscopy suite

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