

1.15 GASTROINTESTINAL AND DIGESTIVE DISORDERS

Introduction

Complaints related to the gastrointestinal (GI) and digestive system are common in childhood and may indicate the presence of a broad range of both routine and serious, life-threatening conditions. Pediatric hospitalists commonly encounter children who present with GI complaints such as abdominal pain, gastrointestinal bleeding, or feeding intolerance, as well as new or established GI conditions such as gastroesophageal reflux (GER), malabsorption, disorders of motility, and a variety of obstructive, infectious, and inflammatory diagnoses. Pediatric hospitalists are often tasked with identifying presenting signs and symptoms, initiating appropriate investigational studies and therapies, and coordinating care across subspecialties as appropriate.

Knowledge

Pediatric hospitalists should be able to:

- Discuss essential elements of the history for patients with GI complaints, including location, radiation, and duration of pain; emesis and stool pattern and description; pertinent non-GI symptoms such as rash, fever, and joint pain; and growth parameters and weight trend.
- Describe the differential diagnosis for common GI complaints for children of varying ages, including:
 - Acute and chronic abdominal pain
 - Emesis, with and without diarrhea
 - Acute and chronic diarrhea
 - Upper and lower GI bleeding
- Discuss disorders of other organ systems that may present with GI complaints, such as lower lobe pneumonia, urinary tract infection, and others.
- Describe medical and surgical urgent and emergent conditions that present with abdominal pain or a digestive disorder, such as intussusception, volvulus, biliary atresia, pyloric stenosis, Hirschsprung's disease, and others.
- Describe the unique diagnostic considerations for adolescents with abdominal pain, including sexually transmitted infections and pelvic inflammatory disease, pregnancy related conditions, and testicular conditions.
- Discuss organisms associated with common infections of the GI tract, including those of the esophagus, stomach, small intestines, and colon.
- Compare and contrast the epidemiology, historical elements, and physical examination findings for various infectious or inflammatory conditions, such as pancreatitis, cholecystitis, hepatitis, and inflammatory bowel disease (IBD).
- Compare and contrast the clinical presentation, radiographic findings, and pharmacologic and non-pharmacologic treatment modalities for physiologic GER versus GER disease.
- Describe common causes of dysphagia and dysmotility, such as congenital anomalies, neurological impairment, and others, and discuss approaches to evaluation and treatment.
- Explain the indications for hospital admission, including clinical monitoring, fluid resuscitation, correction of electrolyte

disturbances, and further diagnostic evaluation.

- Explain the indications for diagnostic laboratory and imaging tests, attending to variation by age, predictive value of tests, and cost-effectiveness.
- Describe common laboratory, imaging, endoscopic, and pathologic findings associated with specific GI disorders, such as eosinophilic esophagitis, IBD, Celiac Disease, and others.
- Discuss indications for subspecialty consultation, including speech and feeding therapy, radiology, gastroenterology, and surgery.
- Discuss indications for patient transfer to a referral center, such as need for pediatric-specific services not available at the local facility.
- Describe specific clinical discharge criteria for hospitalized patients with various GI disorders.

Skills

Pediatric hospitalists should be able to:

- Diagnose disorders of the GI tract and digestive system by efficiently performing an accurate history and physical examination, with specific focus on the oral pharynx, anus and rectum, abdomen, and integument, determining if key features of diseases are present.
- Formulate a targeted differential diagnosis based on elements from the history and physical examination to direct the need for further investigation.
- Identify and effectively manage complications of GI disorders such as sepsis, ileus or obstruction, and GI bleeding.
- Formulate an individualized, evidence-based evaluation and treatment plan, including fluid and nutritional management, laboratory and radiological testing, coordination of endoscopic and surgical interventions, medication, and pain management.
- Adhere to infection control practices when indicated.
- Engage consultants efficiently and appropriately when indicated.
- Communicate effectively with the family/caregivers and healthcare providers regarding findings and care plans.
- Coordinate care with the primary care provider and subspecialists if indicated and arrange an appropriate transition plan for hospital discharge.

Attitudes

Pediatric hospitalists should be able to:

- Recognize the importance of coordinating care for diagnostic tests and treatment between subspecialists, such as gastroenterologists, radiologists, and surgeons.
- Realize responsibility for effective communication with the patients, the family/caregivers, subspecialists, and primary care providers regarding diagnostic findings, plan of care, and anticipatory guidance after discharge.

Systems Organization and Improvement

In order to improve efficiency and quality within their organizations, pediatric hospitalists should:

- Lead, coordinate, or participate in the development and implementation of cost-effective, safe, evidence-based care pathways to standardize the evaluation and management for hospitalized children with GI disorders.
- Collaborate with hospital administration to create and sustain a process to follow up on laboratory tests pending at discharge.

References

1. Robin, SG, Keller C, Zwiener R, et al. Prevalence of Pediatric Functional Gastrointestinal Disorders Utilizing the Rome IV Criteria. *J Pediatr*. 2018;195:134-139. <https://doi.org/10.1016/j.jpeds.2017.12.012>.
2. Bishop WP, Ebach DR. Digestive System Assessment; Esophagus and Stomach; Intestinal Tract; Pancreatic Disease. In: Marc Dante K, Kliegman R, eds. *Nelson Essentials of Pediatrics*, 8th ed. Philadelphia, PA: Elsevier, 2019:467-503.