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# Gastrointestinal Emergencies

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Autumn Graham • David J. Carlberg  
Editors

# Gastrointestinal Emergencies

Evidence-Based Answers to Key  
Clinical Questions

 Springer

*Editors*

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ISBN 978-3-319-98342-4      ISBN 978-3-319-98343-1 (eBook)

<https://doi.org/10.1007/978-3-319-98343-1>

Library of Congress Control Number: 2018967969

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The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

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## Preface

Abdominal pain is the most common complaint in emergency medicine. In developing this textbook, we wanted to provide evidence-based answers to specific clinical questions encountered during the evaluation and management of patients with abdominal pain. While each part, read in total, provides a comprehensive review of the topic (e.g., gallbladder disease), each chapter can be read individually as a real-time clinical reference (e.g., is a negative CT good enough to rule out acute cholecystitis?).

In the era of team-based care, understanding a consultant's approach to a clinical problem can make conversations easier and facilitate patient care. Therefore, each part includes a Consultant Corner chapter, which answers some of the same questions from the standpoint of the consultant.

We included an "Additional Reading" section at the end of each chapter, allowing our authors to highlight landmark interesting articles from the medical literature as well as free open access medical education (FOAM) resources, such as podcasts and blogs.

While editing the book, we played the role of both learner and educator. Each part taught us interesting, useful, and sometimes funny facts that broadened our knowledge of gastrointestinal emergencies. Below we list one or two things we learned from editing each part of the book.

Part	Things we learned
General Approach to Acute Abdominal Pain	Abdominal pain cases with a recognized diagnostic error were more likely to have (1) inadequately addressed abnormalities on laboratory studies, (2) a shorter initial length of stay, (3) a differential diagnosis that did not include the final diagnosis, or (4) discrepancies/omissions of history documented by nursing and emergency medicine provider.
Gastrointestinal Bleeding	Of those patients with ascites, 60% will have varices. Antibiotic administration, specifically ceftriaxone 1 gm IV, decreases morbidity and mortality in patients with variceal bleeding.
Abdominal Aortic Aneurysm and Aortic Dissection	Permissive hypotension for ruptured abdominal aortic aneurysm involves restricting fluid administration with a goal systolic blood pressure (SBP) of 50–100 mm Hg. The optimal target SBP is unclear.
Mesenteric Ischemia	Lactate represents evidence of late disease and corresponds with irreversible bowel necrosis. D-dimer may play a role in early diagnosis, but it is still unclear what role it plays. Young, female patients with chronic, intermittent abdominal and an extensive negative work-up may have chronic mesenteric ischemia from vasculitis or rheumatologic disease.
Abdominal Pain and Vomiting	Topical abdominal application of capsaicin is a noninvasive, low-risk treatment for cannabis hyperemesis syndrome. The only proven long-term treatment is cessation of cannabis use.
Pancreatitis	The probability of a common bile duct (CBD) stone increases from 28% to 50% when the diameter cutoff of the CBD is changed from 6 mm to 10 mm; gallstone pancreatitis warrants cholecystectomy during their index presentation.
Bowel Obstruction	Bedside ultrasound performed by emergency physicians can rule in and rule out small bowel obstruction with a specificity of 90–96% and a sensitivity of 93–97%.

Part	Things we learned
Gallbladder Disease	Among those who did not undergo cholecystectomy for acute cholecystitis during their index admission, 19% had a gallstone-related emergency department visit or hospital admission within 3 months.
Liver Disease	Patients with acute liver failure should be considered for early transfer to a liver transplant center, ideally prior to elevation in intracranial pressure or the development of severe coagulopathy.
Appendicitis	Appendicitis in pregnancy may lack the classic pain presentation due to downregulation of pain receptors and increased distance from the inflamed appendix to the parietal peritoneum.
Diverticulitis	No antibiotics for uncomplicated diverticulitis is recommended by many European practice guidelines and a growing body of literature supports this “watchful waiting” management.
Inflammatory Bowel Disease	Budesonide is the steroid of choice for treating inflammatory bowel disease flares because its extensive first-pass metabolism decreases systemic exposure. Budesonide is optimal for mild flares and patients at high risk for complications from prednisone. Prednisone should be used in moderate flares and for those who have failed budesonide.
Diarrhea	Vancomycin 125 mg four times a day is the new first-line treatment for <i>Clostridium difficile</i> infections.
Abdominal Pain in the Pregnant Patient	Up to 1% of women need an operation during pregnancy for a non-obstetric abdominal emergency.
Abdominal Pain in the Immunocompromised Patient	In transplant patients, time from transplant guides the choice of empiric antimicrobial therapy; in the first 6 months when patients are on high doses of immunosuppression, antimicrobial treatments are directed toward opportunistic infections such as CMV and hospital acquired infections; after 6 months when the immunosuppressive regimens are lessened, community acquired infections predominate.
Abdominal Pain in the Bariatric Patient	Bowel obstruction with history of RYGB is an internal hernia until proven otherwise; vague neurologic symptoms in any bariatric patient, particularly following malabsorptive procedures, should prompt consideration for B1/Thiamine deficiency (Wernicke’s encephalopathy).
Abdominal Pain in the Post-Procedure Patient	An uncommon complication of colonoscopy is intracolonic explosion due to electrocautery-induced ignition of methane.
Chronic Abdominal Pain	Anterior cutaneous nerve entrapment syndrome (ACNES) is a commonly undiagnosed cause of chronic abdominal pain and injection of local anesthetic can be both diagnostic and therapeutic.

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