Gastrointestinal Emergencies

Autumn Graham • David J. Carlberg
Editors

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Evidence-Based Answers to Key Clinical Questions

Springer

Editors
Autumn Graham
Department of Emergency Medicine
MedStar Georgetown University Hospital
Washington, DC
USA

David J. Carlberg
Department of Emergency Medicine
MedStar Georgetown University Hospital
Washington, DC
USA

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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 *Clostridium difficile* 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.

Washington, DC, USA

Autumn Graham
David J. Carlberg

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Contributors

Lindsea Abbott, MD MedStar Washington Hospital Center, Department of Emergency Medicine, Washington, DC, USA

Ainsley Adams, MD Department of Emergency Medicine, George Washington University School of Medicine & Health Sciences, Washington, DC, USA

Essa M. Aleassa, MD Bariatric and Metabolic Institute, Cleveland Clinic Foundation, Cleveland, OH, USA

Department of Surgery, College of Medicine and Health Sciences, United Arab Emirates University, Al-Ain, United Arab Emirates

M. Aamir Ali, MD, AGAF Division of Gastroenterology, George Washington University, Washington, DC, USA

Matthias Barden, MD Department of Emergency Medicine, Eisenhower Medical Center, Rancho Mirage, CA, USA

John C. Beauchamp, MD Department of Emergency Medicine, McGovern Medical School at The University of Texas Health Science Center at Houston (UTHealth), Houston, TX, USA

Brent A. Becker, MD Wellspan York Hospital, Department of Emergency Medicine, York, PA, USA

Eric Benoit, MD Division of Trauma & Surgical Critical Care, Alpert Medical School of Brown University, Providence, RI, USA

Joelle Borhart, MD, FACEP, FAAEM Department of Emergency Medicine, MedStar Washington Hospital Center & MedStar Georgetown University Hospital, Washington, DC, USA

Matthew P. Borloz, MD Virginia Tech Carilion School of Medicine, Department of Emergency Medicine, Roanoke, VA, USA

Stacy Brethauer, MD Bariatric and Metabolic Institute, Cleveland Clinic Foundation, Cleveland, OH, USA

Robert M. Brickley, MD UPMC Department of Emergency Medicine, Pittsburgh, PA, USA

Elaine Bromberek, MD MedStar Washington Hospital Center, MedStar Georgetown University Hospital, Washington, DC, USA

John David Buek, MD MedStar Washington Hospital Center, Department of Obstetrics and Gynecology, Washington, DC, USA

Jaclyn Caffrey, MD Department of Emergency Medicine, Alpert Medical School of Brown University, Providence, RI, USA

David Carlberg, MD Department of Emergency Medicine, MedStar Georgetown University Hospital & Washington Hospital Center, Washington, DC, USA

Kimberly A. Chambers, MD Department of Emergency Medicine, McGovern Medical School at The University of Texas Health Science Center at Houston (UTHealth), Houston, TX, USA

Karin Chase, MD University of Rochester Medical Center, Rochester, NY, USA

KinWah Chew, MD WellSpan York Hospital Department of Emergency Medicine, York, PA, USA

Cullen Clark, MD Emergency Medicine/Pediatrics Resident, Louisiana State University Health Sciences Center – New Orleans, New Orleans, LA, USA

Michelle Clinton, MD Virginia Tech – Carilion Clinic, Department of Emergency Medicine, Roanoke, VA, USA

Mark Collin, MD Section of Emergency Ultrasound, York Hospital Emergency Ultrasound Fellowship, York Hospital Emergency Medicine Residency, York Hospital Department of Emergency Medicine, York, PA, USA

Catherine Cummings, MD, FACEP Department of Emergency Medicine, Alpert Medical School of Brown University, Providence, RI, USA

Krishna Dass, MD MedStar Washington Hospital Center, Department of Infectious Disease, Washington, DC, USA

I. David Shocket, MD MedStar Washington Hospital Center, Washington, DC, USA

W. Nathan Davis, MD Department of Emergency Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

John Davitt, MD MedStar Washington Hospital Center, Department of Obstetrics and Gynecology, Washington, DC, USA

Lindsey DeGeorge, MD Department of Emergency Medicine, MedStar Washington Hospital Center, Washington, DC, USA

Edward A. Descallar, MD Department of Emergency Medicine, MedStar Washington Hospital Center, MedStar Georgetown University Hospital, Washington, DC, USA

Maria Dynin, MD Department of Emergency Medicine, MedStar Washington Hospital Center & MedStar Georgetown University Hospital, Washington, DC, USA

Adam C. Ehrlich, MD, MPH Section of Gastroenterology, Department of Medicine, Lewis Katz School of Medicine at Temple University, Philadelphia, PA, USA

Daniel Eum, MD Keck School of Medicine of the University of Southern California, Los Angeles County/University of Southern California (LAC+USC) Department of Emergency Medicine, Los Angeles, CA, USA

Lindley E. Folkerson, MD Department of Emergency Medicine, McGovern Medical School at The University of Texas Health Science Center at Houston (UTHealth), Houston, TX, USA

Timothy J. Fortuna, DO Virginia Tech Carilion School of Medicine, Department of Emergency Medicine, Roanoke, VA, USA

Alexa R. Gale, MD, MS FACEP, FAAEM Georgetown University School of Medicine, MedStar Washington Hospital Center, Department of Emergency Medicine, Washington, DC, USA

Cameron Gettel, MD Department of Emergency Medicine, Alpert Medical School of Brown University, Providence, RI, USA

Daniel B. Gingold, MD, MPH University of Maryland School of Medicine, Department of Emergency Medicine, Baltimore, MD, USA

Jonathan Giordano, DO, MS Department of Emergency Medicine, McGovern Medical School at The University of Texas Health Science Center at Houston (UTHealth), Houston, TX, USA

Kelle Goranson, MD Department of Emergency Medicine, McGovern Medical School at The University of Texas Health Science Center at Houston (UTHealth), Houston, TX, USA

Autumn Graham, MD Department of Emergency Medicine, MedStar Washington Hospital Center, MedStar Georgetown University Hospital, Washington, DC, USA

Ashley Gray, MD Department of Emergency Medicine, Alpert Medical School of Brown University, Providence, RI, USA

Richard T. Griffey, MD, MPH Washington University School of Medicine, St. Louis, MO, USA

Mohamed Hagahmed, MD Department of Emergency Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

Jonathan L. Hansen, MD, MBA, FACEP MedStar Franklin Square Medical Center, Baltimore, MD, USA

Georgetown University School of Medicine, Washington, DC, USA

Michelle A. Hieger, DO Section of Toxicology, Department of Emergency Medicine, Wellspan Health, York Hospital, York, PA, USA

Matthew Hinton, PharmD, BCPS Department of Pharmacy, Temple University Hospital, Philadelphia, PA, USA

Andrea J. Hladik, MD Department of Emergency Medicine, Eisenhower Medical Center, Rancho Mirage, CA, USA

Christina S. Houser, MD MedStar Washington Hospital Center, MedStar Georgetown University Hospital, Washington, DC, USA

Joseph Izzo, MD Department of Emergency Medicine, MedStar Georgetown University Hospital, Washington, DC, USA

Patrick G. Jackson, MD MedStar Georgetown University Hospital, Washington, DC, USA

MedStar Washington Hospital Center, Washington, DC, USA

Timothy Jang, MD Harbor-UCLA Medical Center, David Geffen School of Medicine at UCLA, Torrance, CA, USA

Adam Janicki, MD Department of Emergency Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

Angela F. Jarman, MD Department of Emergency Medicine, Alpert School of Medicine of Brown University, Providence, RI, USA

Kelli L. Jarrell, MD University of Cincinnati College of Medicine, Department of Emergency Medicine, Cincinnati, OH, USA

Laura S. Johnson, MD Georgetown University School of Medicine, Washington, DC, USA

Herman Kalsi, MD Department of Emergency Medicine, MedStar Georgetown University Hospital, Washington, DC, USA

Theodore Katz, MD Department of Emergency Medicine, MedStar Georgetown University Hospital, Washington, DC, USA

Efrat Rosenzweig Kean, MD Temple University Hospital, Philadelphia, PA, USA

Thompson Kehrl, MD, FACEP, RDMS Section of Emergency Ultrasound, York Hospital Emergency Ultrasound Fellowship, York Hospital Emergency Medicine Residency, York Hospital Department of Emergency Medicine, York, PA, USA

Shawna Kettyle, MD MedStar Washington Hospital Center, Washington, DC, USA

Basil Z. Khalaf, MD Department of Emergency Medicine, McGovern Medical School at The University of Texas Health Science Center at Houston (UTHealth), Houston, TX, USA

Eric S. Kiechle, MD MPH MedStar Washington Hospital Center, Department of Emergency Medicine, Washington, DC, USA

Evan Kingsley, MD Department of Emergency Medicine, Temple University Hospital, Philadelphia, PA, USA

Ahnika Kline, MD PhD National Institute of Health, Bethesda, MD, USA

Adeola A. Kosoko, MD Department of Emergency Medicine, McGovern Medical School at The University of Texas Health Science Center at Houston (UTHealth), Houston, TX, USA

Alex Koyfman, MD The University of Texas Southwestern Medical Center, Department of Emergency Medicine, Dallas, TX, USA

Anita Kumar, MD George Washington University School of Medicine & Health Sciences, Department of Medicine, Division of Gastroenterology, Washington, DC, USA

Diana Ladkany, MD Department of Emergency Medicine, MedStar Washington Hospital Center & MedStar Georgetown University Hospital, Washington, DC, USA

Kerri Layman, MD Department of Emergency Medicine, MedStar Washington Hospital Center & MedStar Georgetown University Hospital, Washington, DC, USA

Maxine Le Saux, BS Department of Emergency Medicine, George Washington University School of Medicine & Health Sciences, Washington, DC, USA

Mary Carroll Lee, MD Virginia Tech Carilion Emergency Medicine Residency, Roanoke, VA, USA

Stephen D. Lee, MD Department of Emergency Medicine, University of Maryland School of Medicine, Baltimore, MD, USA

Zone-En Lee, MD, FACG Division of Gastroenterology, MedStar Georgetown University Hospital, Washington, DC, USA

MedStar Georgetown University Hospital, Washington, DC, USA

Erin Leiman, MD Division of Emergency Medicine, Department of Surgery, Duke University Medical Center, Durham, NC, USA

Kevin Vincent Leonard, MD UPMC Department of Emergency Medicine, Pittsburgh, PA, USA

Mark Levine, MD Washington University School of Medicine, St. Louis, MO, USA

Kerrie Lind, MD, MSc MedStar Southern Maryland Hospital Center, Department of Emergency Medicine, Clinton, MD, USA

Yiju Teresa Liu, MD Harbor-UCLA Medical Center, David Geffen School of Medicine at UCLA, Torrance, CA, USA

Robert Loflin, MD University of Rochester Medical Center, Rochester, NY, USA

Brit Long, MD Brooke Army Medical Center, Department of Emergency Medicine, Fort Sam Houston, San Antonio, TX, USA

Emily Lovallo, MD UPMC Department of Emergency Medicine, Pittsburgh, PA, USA

Samuel D. Luber, MD, MPH, FACEP Department of Emergency Medicine, McGovern Medical School at The University of Texas Health Science Center at Houston (UTHealth), Houston, TX, USA

Charles Maddow, MD, FACEP McGovern Medical School at the University of Texas Health Science Center at Houston, Department of Emergency Medicine, Houston, TX, USA

Nidhi Malhotra, MD MedStar Washington Hospital Center, Washington, DC, USA

Sara Manning, MD Department of Emergency Medicine, University of Maryland School of Medicine, Baltimore, MD, USA

Joseph P. Martinez, MD University of Maryland School of Medicine, Baltimore, MD, USA

Mariana Martinez, MD Department of Emergency Medicine, Los Angeles County + USC Medical Center, Los Angeles, CA, USA

Caroline Massarelli, BS Georgetown University School of Medicine, Washington, DC, USA

Courtney H. McKee, MD University of Cincinnati College of Medicine, Department of Emergency Medicine, Cincinnati, OH, USA

Andrew C. Meltzer, MD MS Department of Emergency Medicine, George Washington University School of Medicine & Health Sciences, Washington, DC, USA

Katharine Meyer, MD Department of Emergency Medicine, MedStar Georgetown University Hospital & Washington Hospital Center, Washington, DC, USA

Tracy M. Moore, MD, MS Department of Emergency Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

Chad Mosby, MD Virginia Tech Carilion School of Medicine, Department of Emergency Medicine, Roanoke, VA, USA

James Murrett, MD, MBE Temple University Hospital, Philadelphia, PA, USA

Bennett A. Myers, MD Department of Emergency Medicine, University of Maryland School of Medicine, Baltimore, MD, USA

Sandeep Nadella, MBBS, MD Division of Gastroenterology, MedStar Georgetown University Hospital, Washington, DC, USA

Sreeja Natesan, MD Duke University Medical Center, Durham, NC, USA

Alejandro Negrete, MPH Case-Western Reserve University, Cleveland, OH, USA

Michael O'Keefe, MD Division of Emergency Medicine, Duke University Medical Center, Durham, NC, USA

Kathleen Ogle, MD Department of Emergency Medicine, George Washington University School of Medicine & Health Sciences, Washington, DC, USA

Susan Owens, MD University of Cincinnati College of Medicine, Department of Emergency Medicine, Cincinnati, OH, USA

Jessica Palmer, MD Department of Emergency Medicine, MedStar Washington Hospital Center & MedStar Georgetown University Hospital, Washington, DC, USA

Rajesh Panchwagh, DO WellSpan Gastroenterology, WellSpan Population Health Services, WellSpan York Hospital, York, PA, USA

Scott H. Pasichow, MD, MPH Department of Emergency Medicine, Alpert School of Medicine of Brown University, Providence, RI, USA

Seema Patil, MD Division of Gastroenterology and Hepatology, University of Maryland School of Medicine, Baltimore, MD, USA

Gita Pensa, MD Department of Emergency Medicine, Alpert Medical School of Brown University, Providence, RI, USA

Jack Perkins, MD Virginia Tech Carilion School of Medicine, Roanoke, VA, USA

Alanna Peterson, MD UPMC Department of Emergency Medicine, Pittsburgh, PA, USA

John B. Pierson, MD Virginia Tech – Carilion Clinic, Department of Emergency Medicine, Roanoke, VA, USA

Elizabeth Pontius, MD, RDMS Georgetown University School of Medicine, Washington, DC, USA

Department of Emergency Medicine, MedStar Georgetown University Hospital and MedStar Washington Hospital Center, Washington, DC, USA

Kenneth Potter, MD Department of Anesthesiology and Perioperative Medicine, Penn State Hershey Medical Center, Hershey, PA, USA

Jane Preotle, MD Department of Emergency Medicine, Alpert Medical School of Brown University, Providence, RI, USA

Heather A. Prunty, MD, FACEP UPMC Department of Emergency Medicine, Pittsburgh, PA, USA

Sandra Quezada, MD, MS Division of Gastroenterology and Hepatology, University of Maryland School of Medicine, Baltimore, MD, USA

Ghady Rahhal, MD Washington University School of Medicine, St. Louis, MO, USA

Jennifer Repanshek, MD Temple University Hospital, Philadelphia, PA, USA

Zachary Repanshek, MD Lewis Katz School of Medicine, Temple University Hospital, Philadelphia, PA, USA

Jessica Riley, MD, FACEP WellSpan York Hospital, Department of Emergency Medicine, York, PA, USA

Robert Riviello, MD, MPH Harvard University School of Medicine, Brigham and Women's Hospital, Boston, MA, USA

Clare Roepke, MD Lewis Katz School of Medicine at Temple University Hospital, Philadelphia, PA, USA

Sarah Ronan-Bentle, MD, MS University of Cincinnati College of Medicine, Department of Emergency Medicine, Cincinnati, OH, USA

Emily Rose, MD Department of Emergency Medicine, Los Angeles County + USC Medical Center, Los Angeles, CA, USA

Keck School of Medicine of the University of Southern California, Department of Emergency Medicine, Los Angeles County + USC Medical Center, Los Angeles, CA, USA

Brandon Ruderman, MD Duke University Medical Center, Durham, NC, USA

Amber Ruest, MD Department of Emergency Medicine, Wellspan York Hospital, York, PA, USA

Patrick Sandiford, MD, MPH Emergency Medicine Residency, University of Rochester Medical Center, Rochester, NY, USA

Anthony Scarcella, MD, JD Department of Emergency Medicine, Eisenhower Medical Center, Rancho Mirage, CA, USA

Jordan B. Schooler, MD, PhD Department of Anesthesiology and Perioperative Medicine, Penn State Hershey Medical Center, Hershey, PA, USA

Department of Emergency Medicine, Penn State Hershey Medical Center, Hershey, PA, USA

Kraftin E. Schreyer, MD Department of Emergency Medicine, Temple University Hospital, Philadelphia, PA, USA

Sara Scott, MD, FACEP Department of Surgery and Perioperative Care, University of Texas at Austin Dell Medical School, Austin, TX, USA

Bradley J. Serack, MD Department of Emergency Medicine, McGovern Medical School at The University of Texas Health Science Center at Houston (UTHealth), Houston, TX, USA

Krystle Shafer, MD Department of Emergency Medicine, Critical Care Intensivist, OHICU and MSICU, Wellspan York Hospital, York, PA, USA

Stephen Shaheen, MD Duke University Medical Center, Durham, NC, USA

Zachary Shaub, DO Virginia Tech Carilion School of Medicine, Department of Emergency Medicine, Roanoke, VA, USA

Manpreet Singh, MD Department of Emergency Medicine, David Geffen School of Medicine at UCLA, Harbor-UCLA Medical Center, Torrance, CA, USA

Bryan Sloane, MD Department of Emergency Medicine, Harbor-UCLA Medical Center, Torrance, CA, USA

Janet Smereck, MD Department of Emergency Medicine, MedStar Georgetown University Hospital, Washington, DC, USA

Jessica L. Smith, MD, FACEP Department of Emergency Medicine, Alpert Medical School of Brown University, Providence, RI, USA

Veronica Solorio, MD, MPH Department of Emergency Medicine, Harbor-UCLA Medical Center, Torrance, CA, USA

Philippa N. Soskin, MD, MPP MedStar Georgetown University Hospital and Washington Hospital Center, Washington, DC, USA

F. James Squadrito, MD Lewis Katz School of Medicine at Temple University Hospital, Philadelphia, PA, USA

Stephanie Streit United States Air Force, Washington, DC, USA

Nellis Air Force Base, Las Vegas, NV, USA

University of Nevada Las Vegas, Las Vegas, NV, USA

Bob Stuntz, MD, RD, MS, FAAEM, FACEP Department of Emergency Medicine, WellSpan York Hospital, York, PA, USA

Mark E. Sutherland, MD University of Maryland Medical Center, Departments of Emergency Medicine, Internal Medicine, and Critical Care, Baltimore, MD, USA

Katrin Takenaka, MD, MEd McGovern Medical School (part of UT Health/The University of Texas Health Science Center at Houston), Houston, TX, USA

Shawn Tejiram, MD MedStar Georgetown University Hospital – Washington Hospital Center Residency Program in General Surgery, Department of Surgery, MedStar Washington Hospital Center, Washington, DC, USA

Meredith C. Thompson, MD Department of Emergency Medicine, University of Virginia Health System, Charlottesville, VA, USA

Travis A. Thompson, MD MedStar Washington Hospital Center, Department of Emergency Medicine, Washington, DC, USA

Traci Thoureen, MD, MHS-CL, MMCi, FACEP Division of Emergency Medicine, Duke University Medical Center, Durham, NC, USA

Shahab Toursavadakohi, MD Department of Surgery, Division of Vascular Surgery, University of Maryland School of Medicine, Baltimore, MD, USA

Aortic Center, University of Maryland Medical Center, Baltimore, MD, USA

Nick Tsipis, MD MPH MedStar Washington Hospital Center, Department of Emergency Medicine, Washington, DC, USA

Andrew Victory, MD UPMC Department of Emergency Medicine, Pittsburgh, PA, USA

Julie T. Vieth, MBChB Canton-Potsdam Hospital, Potsdam, NY, USA

Angelina Vishnyakova, MD McGovern Medical School at the University of Texas Health Science Center at Houston, Department of Emergency Medicine, Houston, TX, USA

Kathryn Voss, MD MedStar Georgetown University and Washington Hospital Center, Washington, DC, USA

Jonathan Wagner, MD Keck School of Medicine of the University of Southern California, Los Angeles County/University of Southern California (LAC+USC) Department of Emergency Medicine, Los Angeles, CA, USA

Anne Walker, MD University of Maryland Medical Center, Baltimore, MD, USA

Deena D. Wasserman, MD, FAWM Department of Emergency Medicine, Temple University Hospital, Philadelphia, PA, USA

Jonathan Watson, MD Department of Emergency Medicine, MedStar Georgetown University Hospital and Washington Hospital Center, Washington, DC, USA

Patrick D. Webb, MD Centers for Gastroenterology, Fort Collins, CO, USA

Lindsay A. Weiner, MD University of Maryland School of Medicine, Department of Emergency Medicine, Baltimore, MD, USA

Jennifer Wellington, DO Division of Gastroenterology and Hepatology, University of Maryland School of Medicine, Baltimore, MD, USA

Jessie Werner, MD Department of Emergency Medicine, Alpert Medical School of Brown University, Providence, RI, USA

Lauren M. Westafer, DO, MPH Department of Emergency Medicine, Baystate Medical Center/UMMS, Springfield, MA, USA

Lauren Westover, MD Department of Emergency Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

Lauren Wiesner, MD Georgetown University School of Medicine, Department of Emergency Medicine, Washington, DC, USA

MedStar Washington Hospital Center, Washington, DC, USA

Matthew Wilson, MD, FACEP Georgetown University School of Medicine, MedStar Washington Hospital Center, Department of Emergency Medicine, Washington, DC, USA

Richard Wroblewski, MD Temple University Hospital, Philadelphia, PA, USA

Andrea Wu, MD, MMM Department of Emergency Medicine, David Geffen School of Medicine at UCLA, Harbor-UCLA Medical Center, Torrance, CA, USA

Zhaoxin Yang MedStar Georgetown University Hospital, Department of Emergency Medicine, Washington, DC, USA

Thomas Yeich, MD, FACEP Department of Emergency Medicine, Wellspan York Hospital, York, PA, USA

Hani Zamil, MD, CMQ McGovern Medical School, UT Health, Houston, TX, USA

Anna Zelivianskaia, MD MedStar Washington Hospital Center, Department of Obstetrics and Gynecology, Washington, DC, USA