

## Introduction: Updates in Inflammatory Bowel Diseases

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Inflammatory Bowel Diseases (IBD), including Crohn's disease (CD), ulcerative colitis (UC) and IBD unspecified (IBDU), are chronic immune-mediated diseases affecting the luminal gastrointestinal system. The incidence of IBD is rising worldwide, particularly in developing countries. In the United States (US) in 2015 an estimated 3 million adults (1.3% of the US adult population) lived with a diagnosis of IBD. This estimate did not include pediatric patients.<sup>1</sup> Over the last 20 years, there have been significant advances in our understanding of the etiopathogenesis of IBD, discovery of newer agents for management of these diseases, and a paradigm shift in the approach to managing them. In this issue and the following issue of the *Rhode Island Medical Journal*, we present updates on a wide range of topics related to care of patients with IBD written by experts in adult and pediatric gastroenterology, colorectal surgery, and other fields from within the state. We are also fortunate to have contributions from national and international experts on many of these topics from across the country. Each topic covers clinically relevant information that should serve as a quick reference guide for busy clinicians in the inpatient and outpatient settings. Given the number of topics to be covered, we have split them over two consecutive issues. The editors include Dr. Samir A. Shah, who is a leading expert on IBD in Rhode Island, Chief of Gastroenterology at The Miriam Hospital, and Immediate Past President of the American College of Gastroenterology; Dr. Jason M. Shapiro, Director of the Pediatric IBD Center at Hasbro Children's Hospital and Director of Research in the Division of Pediatric Gastroenterology, Nutrition and Liver Diseases; and Dr. Abbas H. Rupawala, previously Co-Director of the IBD Center at Brown Medicine and now Director of the IBD Center at the University of Massachusetts Medical Center.

### PREVENTIVE CARE AND HEALTH MAINTENANCE IN PATIENTS WITH IBD

Patients with IBD will often need treatment with immunosuppressive medications that carry an increased risk of infections and malignancies. Therefore, health maintenance with specific focus on vaccination and cancer surveillance is of paramount importance, particularly as our patients live longer with these conditions and may remain on treatment for prolonged periods of time. These concepts have been

succinctly covered in this topic by Dr. Daniela Fluxa and Dr. Breton Roussel, both trainees in gastroenterology, and Dr. Jana Alhashash. The senior author on this topic, Dr. Francis Farraye, is an internationally renowned expert on this topic and is also the lead author of the American College of Gastroenterology's (ACG) clinical guidelines on preventive care in IBD.

### EXTRAIESTINAL MANIFESTATIONS OF IBD

Patients with IBD are at increased risk of developing other autoimmune diseases.<sup>2</sup> However, more commonly, they will exhibit symptoms related to other organ systems, typically involving the joints, skin and eyes. Many of these patients benefit from multidisciplinary care at the Rhode Island Hospital Center for Skin and Musculoskeletal Diseases. Some extraintestinal symptoms may parallel disease activity of IBD while others may manifest independently of the bowel inflammation activity. Furthermore, patients with IBD are at risk of several complications affecting every organ system. Dr. Sean Fine, Director of the IBD Center at Brown Medicine/Brown Physicians, Inc., has provided a comprehensive summary of the extraintestinal manifestations of IBD and their management.

### CLOSTRIDIODES DIFFICILE AND FMT IN PATIENTS WITH IBD

Over the last decade there has been an epidemic of *Clostridioides difficile* infection (CDI), in part due to the rampant use of antibiotics that has led to significant interest and education in antibiotic stewardship. It was also, in large part, due to the emergence of a hypervirulent strain of *C. difficile* characterized as North American pulsed-field type 1, restriction-endonuclease analysis group type BI, and PCR ribotype 027. Patients with IBD seem to have increased risk of CDI even in absence of antibiotic use, in part due to the dysbiotic gut microbiome, and are at higher risk of adverse outcomes. Furthermore, fecal microbial transplant has emerged as a promising treatment modality in multiply recurrent CDI. However, given the effect of microbiome perturbations on the course of IBD, FMT requires special consideration in this patient population, particularly as we explore FMT as an emerging therapeutic modality for this condition. Dr.

Sohum Patwa, resident in internal medicine at Rhode Island Hospital (RIH), and Dr. Christopher Ward, former chief resident at RIH and currently a gastroenterology fellow at the Lahey Clinic, accompany Dr. Colleen Kelly, an associate professor of medicine at Brown, world-renowned expert in FMT and lead author of the recent ACG guidelines on management of CDI, discuss the features of CDI in IBD patients and the nuances of FMT in this population.

**TREAT-TO-TARGET: THE ERA OF BIOLOGICS IN IBD MANAGEMENT**

One of the major paradigm changes in the management of IBD over the last decade is the shift of goals of treatment from improvement in symptoms alone to healing gut inflammation. This concept is inspired from care of patients with rheumatoid arthritis, where the focus of treatment has evolved to healing joint inflammation with the goal of preventing long-term joint damage and preserving organ function. This concept is discussed at length in the manuscript written Dr. Daniel Marino and lead editor Dr. Samir A. Shah. We are also fortunate to have input from renowned faculty across United States, including Dr. Siddharth Singh of the University of California San Diego, Dr. Jason Hou of the Baylor College of Medicine, Dr. Corey Siegel of Dartmouth-Hitchcock Medical Center, and Dr. Gil Melmed of Cedars-Sinai Medical Center. They also review the efforts of IBD Qorus, a nationwide quality improvement initiative aimed at improving care of patients with IBD. IBD Qorus now includes over 50 sites across the US that work in a collaborative fashion to improve care of IBD patients in a variety of different areas; their most recent focus is improving adoption of a treat-to-target approach in the care of IBD patients.

**PART II**

In the upcoming issue, we will cover the following topics:

- Lessons from the Ocean State Crohn’s and Colitis Area Registry (OSCCAR)
- Surgical Advances in IBD
- Management of the Hospitalized Patient with Acute Colitis
- Reproductive Issues in Women with IBD
- Nutritional Therapy in Inflammatory Bowel Disease
- Pediatric IBD
- COVID-19 and IBD: Lessons from SECURE-IBD

**References**

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2. Bernstein CN, Wajda A, Blanchard JF. The clustering of other chronic inflammatory diseases in inflammatory bowel disease: a population-based study. *Gastroenterology.* 2005 Sep;129(3):827-36.

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