



# Experiences with Bowel Preparation for Colonoscopy in Crohn's Disease

Jennifer K. Maratt, MD, MS;<sup>1,2,3</sup> Michael K. Allio, AB;<sup>4</sup> Joshua R. Korzenik, MD;<sup>4,5</sup> Douglas K. Rex, MD;<sup>1</sup> Kelly Smith;<sup>1</sup> Melissa Thomas, BS;<sup>6</sup> Laura Barger, MSN, FNP;<sup>7</sup> Ziad H. Younes, MD;<sup>7</sup> Corey A. Siegel, MD, MS<sup>8</sup>

<sup>1</sup>Department of Medicine, Division of Gastroenterology and Hepatology, Indiana University School of Medicine; <sup>2</sup>Richard L. Roudebush VA Medical Center; <sup>3</sup>Regenstrief Institute Inc., Indianapolis, IN; <sup>4</sup>ColonyConcepts LLC; <sup>5</sup>Division of Gastroenterology, Brigham and Women's Hospital, Boston, MA; <sup>6</sup>Indiana University Purdue University, Indianapolis, IN; <sup>7</sup>Gastro One, Germantown, TN; <sup>8</sup>Section of Gastroenterology & Hepatology, Dartmouth-Hitchcock Medical Center Lebanon, NH



## BACKGROUND

- Patients with inflammatory bowel disease (IBD) require frequent colonoscopies for assessment of disease activity, response to therapy, and surveillance for dysplasia or neoplasia.
- Crohn's disease (CD) may present unique challenges to bowel preparation due to complications related to the disease such as strictures, fistulas, prior surgery, and poor patient tolerability.
- Little is known about CD patients' experiences with bowel preparation.

## OBJECTIVE

- To develop an in-depth understanding of experiences with bowel prep for colonoscopy in CD, from the perspectives of patients and providers, using a mixed methods approach.

## METHODS

- Patients:** CD patients ≥18 years of age who were scheduled for outpatient colonoscopy at Indiana University (IU) or Gastro One were invited to participate
  - 34-item survey administered either prior to their colonoscopies or 24 hours after
    - Those who completed the survey were invited to participate in a focus group
  - Domains covered: experiences with bowel prep, barriers and facilitators to successful completion of prep, and perceptions about an ideal prep
- Providers:** Nationwide sample of gastroenterologists with expertise in colonoscopy, bowel preparation, and IBD were invited to complete a 14-item survey and participate in a focus group
  - Domains covered: experiences with bowel prep for CD patients, perceptions about prep quality based on indication for CD, thoughts about ideal prep

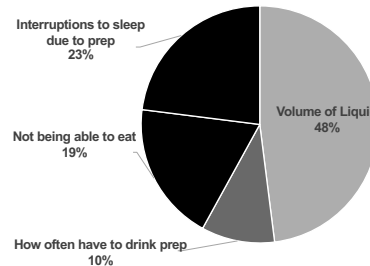
## RESULTS

### Patient Characteristics (n=144)

Age (years)	N (%)
18-39	67 (50%)
40-59	44 (33%)
60+	22 (17%)
Sex	
Male	58 (44%)
Female	75 (56%)
Race & Ethnicity	
Caucasian	106 (80%)
African American	20 (15%)
Asian or Pacific Islander	6 (5%)
Hispanic or Latino	1 (0.8%)
Self-reported Health Status	
Excellent	16 (12%)
Very good/good	71 (53%)
Fair	37 (28%)
Poor	9 (7%)
CD Activity	
Active	14 (34%)
Inactive	17 (41%)
CD Features	
Presence of stricture(s)	45 (32%)
Presence of fistula(s)	28 (20%)
Prior CD-related surgery	48 (35%)

### Key Survey Results

- 41% undergo colonoscopy annually, or sooner
- Main reason for following through with colonoscopy:
  - Doctor's orders (57%)
  - Self-commitment to managing health (41%)
- 12% delayed colonoscopy
  - Worry about prep (19%)
  - Didn't think needed it right away (19%)
  - Fear of results (13%)
- Biggest challenges with bowel prep:



### Patient Focus Group Themes (n=7)

Barriers to prep	Volume of bowel prep reported as the biggest challenge; inability to eat while prepping; frequency of drinking prep; disruptions to work and sleep
Facilitators to prep	Having had prior experience with bowel prep; reducing volume of prep
Symptoms	Abdominal pain/cramping; nausea; vomiting; urgency
Ideal prep	Lower volume; palatable (taste/texture); less steps in prep process; shorter duration

### Provider Characteristics (n=6)

Years in practice	N (%)
<10	2 (33%)
11-15	1 (17%)
16-20	3 (50%)
Clinical time spent performing colonoscopies for CD patients	
25%	5 (83%)
50%	1 (17%)

### Key Survey Results

- 50% felt that bowel prep volume is a challenge for CD patients
- 83% did not believe that compliance with prep was an issue for CD patients
- 100% agreed that there is a need to have bowel prep specifically tested in CD patients

### Provider Focus Group Themes (n=6)

Challenges to existing preps	Volume of liquid required; taste; safety concerns
Facilitators to prep	Splitting dose of prep
Ideal prep	Low volume; palatable; not limited to liquid only (i.e., pills, pudding, bars may be more tolerable)
Barriers to knowledge about ideal prep for CD patients	Unclear volume of prep required for those with altered anatomy (i.e., colon resections, strictures, fistulas); lack of standardization of diet leading up to prep; lack of bowel prep scoring methods for CD patients

## CONCLUSIONS

- Bowel preparation is perceived as the most difficult part of undergoing colonoscopy among CD patients.
  - Worry about prep reported as the leading cause of delays in scheduling colonoscopy.
- Further studies are needed to determine the optimal bowel prep formulation and volume as well as prep quality scoring methods for colonoscopy for CD patients.

**ACKNOWLEDGEMENTS:** Funding for this work made possible by The Leona M. and Harry B. Helmsley Charitable Trust.