

May 20th, 5:00 PM - 7:00 PM

## Pilot Testing a Novel Treatment for Inflammatory Bowel Disease

Barbara C. Olendzki

*University of Massachusetts Medical School*

Gioia Persuitte

*University of Massachusetts Medical School*

Taryn Silverstein

*UMass Memorial Health Care*

*See next page for additional authors*

Follow this and additional works at: [https://escholarship.umassmed.edu/cts\\_retreat](https://escholarship.umassmed.edu/cts_retreat)

 Part of the [Dietetics and Clinical Nutrition Commons](#), [Digestive System Diseases Commons](#), [Gastroenterology Commons](#), and the [Translational Medical Research Commons](#)

---

Olendzki, Barbara C.; Persuitte, Gioia; Silverstein, Taryn; Baldwin, Katherine; Cave, David; Zawacki, John K.; Bhattacharya, Kanishka; and Ma, Yunsheng, "Pilot Testing a Novel Treatment for Inflammatory Bowel Disease" (2011). *UMass Center for Clinical and Translational Science Research Retreat*. 15.

[https://escholarship.umassmed.edu/cts\\_retreat/2011/posters/15](https://escholarship.umassmed.edu/cts_retreat/2011/posters/15)

This material is brought to you by eScholarship@UMMS. It has been accepted for inclusion in UMass Center for Clinical and Translational Science Research Retreat by an authorized administrator of eScholarship@UMMS. For more information, please contact [Lisa.Palmer@umassmed.edu](mailto:Lisa.Palmer@umassmed.edu).

---

**Presenter Information**

Barbara C. Olendzki, Gioia Persuitte, Taryn Silverstein, Katherine Baldwin, David Cave, John K. Zawacki, Kanishka Bhattacharya, and Yunsheng Ma

**Creative Commons License**

This work is licensed under a [Creative Commons Attribution-Noncommercial-Share Alike 3.0 License](https://creativecommons.org/licenses/by-nc-sa/3.0/).





# Pilot Testing a Novel Treatment for Inflammatory Bowel Disease

Barbara Olendzki, RD, MPH; Gioia Persuitte, MPA; Taryn Silverstein, DO;  
Katherine Baldwin, MD, David Cave, MD, PhD; John Zawacki, MD; Kanishka Bhattacharya, MD, Yunsheng Ma, MD, PhD



University of Massachusetts (UMass) Medical School and UMass Memorial Health Care, Worcester, MA

## BACKGROUND and OBJECTIVE

Inflammatory Bowel Disease (IBD), which includes Crohn's disease (CD) and ulcerative colitis (UC), are chronic non specific inflammatory conditions. Standard IBD treatment typically employs a combination of anti-inflammatory and immune suppressive medications; however, the pharmacological approach is not by itself curative. The Anti-Inflammatory Diet for IBD (IBD-AID), which is derived and augmented from The Specific Carbohydrate Diet (SCD), is a nutritional regimen that restricts the intake of complex carbohydrates such as refined sugar, gluten-based grains, and certain starches from the diet. These carbohydrates are thought to provide a substrate for pro-inflammatory bacteria. The second component of the diet involves the ingestion of pre- and probiotics to help restore an anti inflammatory environment.

### Study Objective

To assess the efficacy and feasibility of the Anti –Inflammatory Diet (IBD-AID) intervention for the treatment of IBD.

## METHODS

**Intervention:** Patients were recruited from the UMMHC gastroenterology clinic upon referral from their gastroenterologist. They received individual instruction of the diet and its restrictions through 5 individual nutrition sessions over approximately a 6-10 month period. Support materials were provided. Cooking classes were also available to the patients.

### Outcome Survey Measures:

#### Ulcerative Colitis: Modified Truelove and Witts Severity Index (MTLW)

Scoring system of 0-21 points, clinical response is defined as a decrease from baseline score of 50% or greater, or less than 10 on 2 consecutive days

- Number of stools/day
- Nocturnal stools
- Visible blood in stools
- Fecal incontinence
- Abdominal pain/cramping
- General well-being
- Abdominal tenderness
- Use of anti-diarrheal drugs

Probiotic Foods	Prebiotic Foods
Aged cheeses	Artichokes
Dark chocolate	Asparagus
Fermented cabbage	Bananas
Kefir	Chicory root
Miso soup	Garlic
Microalgae	Honey
Pickles	Leeks
Yogurt (active)	Oats
	Onions

#### Crohn's Disease: Harvey Bradshaw Index (HBI)

- General well-being (0 = very well, 1 = slightly below average, 2 = poor, 3 = very poor, 4 = terrible)
- Abdominal pain (0 = none, 1 = mild, 2 = moderate, 3 = severe) number of liquid stools per day
- Abdominal mass (0 = none, 1 = dubious, 2 = definite, 3 = tender)
- Complications, with one point for each.

## RESULTS

Age	Sex	Disease	Disease duration	Extent disease	Dx Based on
39	F	CD	8 years	Rectum to transverse colon	Colonoscopy
47	F	CD	4 years	Distal ileum	Colonoscopy & MRI
39	F	CD	9 years	Distal ileum	Small bowel follow through
24	F	CD	14 years	Small bowel	Capsule endoscopy, sigmoidoscopy
39	M	CD	7 years	Ileocecal, perianal area	Colonoscopy and capsule endoscopy
69	M	UC	24 years	Descending colon & rectum	Colonoscopy
19	F	UC	5 years	Pan-colonic	Colonoscopy
40	M	CD	1 year	Colonic	Colonoscopy & MRI
41	M	CD	8 years	Distal ileum	CT scan & colonoscopy
37	F	CD	4 years	Ileocecal	CT scan & pathology from surgery
70	F	UC	19 years	Pan-colonic	Colonoscopy & histology

Age	Sex	Disease	Prior Tx Include	Recent Tx	HBI/MTLW before	HBI/MTLW after
39	F	CD	ASA, IM, aTNF	ASA +IBD-AID	HBI 12	3
47	F	CD	S, IM, aTNF	S(taper) + IBD-AID	HBI 9	2
39	F	CD	S,IM	IM + IBD-AID	HBI 12	2
24	F	CD	S,ASA, IM, aTNF	S(taper), IM + IBD-AID	HBI 15	0
39	M	CD	IM, aTNF	IBD+AID	HBI 20	0
69	M	UC	ASA, IM, aTNF	ASA, IM + IBD-AID	MTLW n/d	2; "improved"
19	F	UC	S,ASA, IM, aTNF	ASA, IBD-AID	MTLW 6	0
40	M	CD	S,ASA, IM	IM + IBD-AID	HBI 15	2
41	M	CD	ASA, IM	IM + IBD-AID	HBI 4	2
37	F	CD	S,ASA, aTNF; elemental diet	aTNF + IBD-AID	HBI 1	1; histologic remission
70	F	UC	ASA, IM, aTNF	aTNF + IBD-AID	MTLW 8	0

Therapy Legend: S=steroid dependant, ASA= 5-ASA derivatives, IM=immunomodulator, aTNF=Anti-tumor necrosis factor antibody

## Conclusion

This case series indicates the potential for the IBD-AID to be used as an adjunctive or alternative therapy for the treatment of IBD. Notably, 9 out of 11 patients were able to be managed without anti-TNF therapy, and 100% of the patients had their symptoms reduced. To make clear recommendations for its use in clinical practice, randomized trials are needed alongside strategies to improve acceptability and compliance with the IBD-AID.

