

Study Aims

- Evaluate the impact of diet recommendations by a registered dietician (RD) on gastrointestinal (GI) symptoms and disease activity
- Determine patient perspectives on dietary adherence

Background

- The spread of a western-type diet high in fats, red meat, and processed foods across the globe may contribute to increased rates of IBD¹
- Patients frequently inquire about dietary changes to manage their symptoms and disease activity
- Forty eight percent of patients perceived diet to be an initiating factor in their disease and 57% felt that diet can trigger a flare²
- Patients frequently avoid foods, particularly during active inflammation when they are most at risk for malnutrition²
- Much of the research into the role of diet in IBD has been limited by small and uncontrolled studies

Methods

- IBD patients were referred to a GI RD at the discretion of their provider between 11/2020 and 6/2022
- Patients formally met with a RD, who provided diet recommendations based on condition and symptoms (Figure 1)
- At the time of the initial RD visit, patients' symptoms and quality of life scores were assessed using the irritable bowel severity scoring system (IBS-SSS) and either the Harvey Bradshaw Index (HBI) or Simple Clinical Colitis Activity Index (SCCAI). Six weeks after diet implementation, follow up surveys were administered via phone call or email
- At 6-week and 3-month time points, patients also assessed their dietary adherence. Dietary adherence difficulty was assessed on a 10-point scale (10=most difficult)
- Follow-up visits and communication was at the discretion of the RD and patient
- McNemar's test was used to analyze categorical variables and student's t-test was used for continuous variables

Figure 1. Registered Dietitian Recommendations

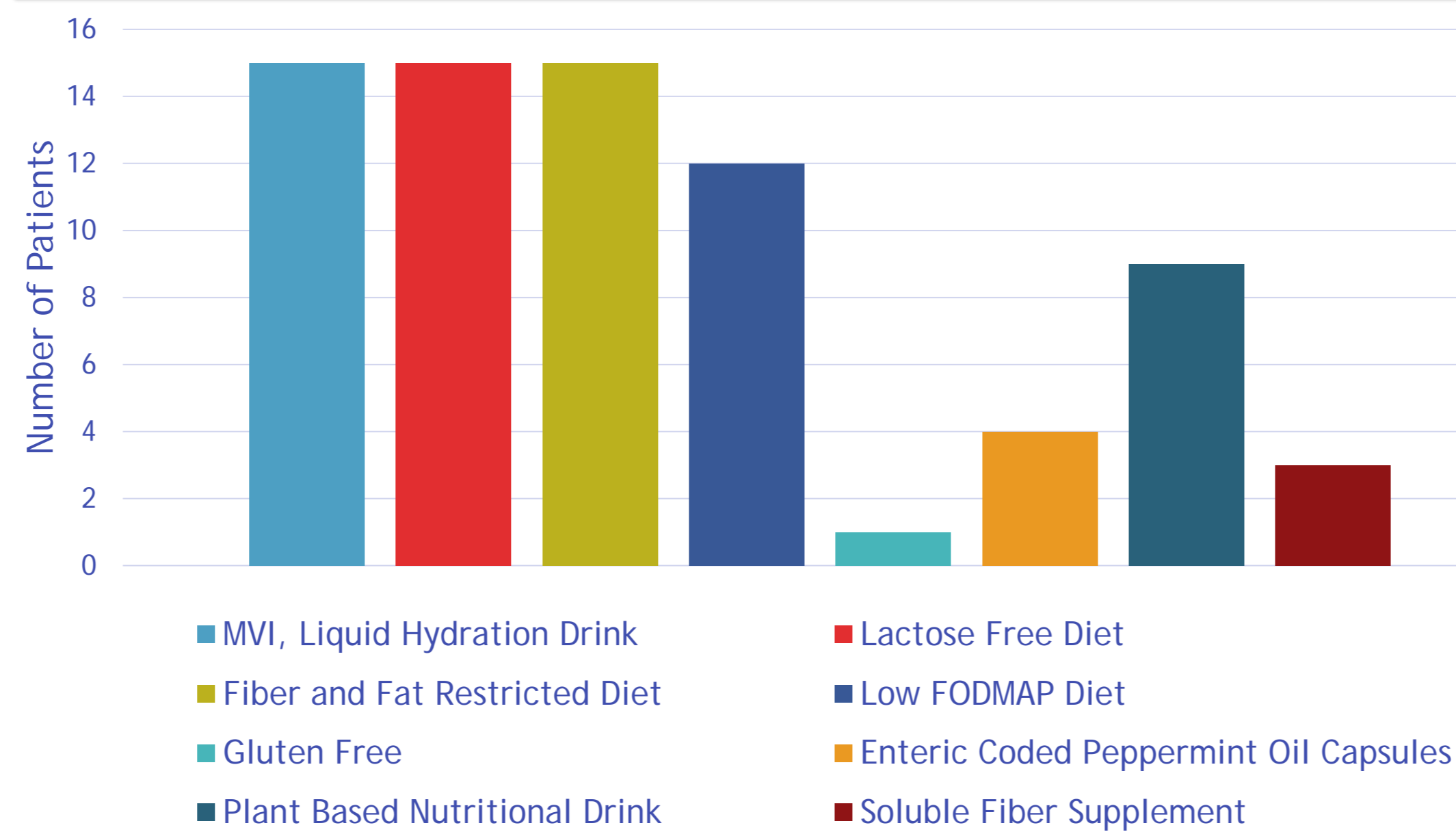


Table 1. Patient Demographics

Male n (%)	7 (47%)
Female n (%)	8 (53%)
BMI (SD)	27 (7)
IBD Median Age at Diagnosis (range)	26 (8-60)
Active Disease n (%)	6 (40%)
Inactive Disease n (%)	9 (60%)
IBD Type	
Crohns n (%)	9 (60%)
Ulcerative Colitis n (%)	6 (40%)
Medications	
Mesalamine n	5
Anti-TNF n	5
Ustekinumab n	2
Vedolizumab n	1
Prednisone n	4
Budesonide n	1
None n	2
Medication Changes in Prior 3 Months n	6

Results

- Fifteen patients participated, 9 with Crohn's disease (CD) and 6 with ulcerative colitis (UC). Fifty three percent were women. Fifty three percent were on biologics. Nine patients had inactive disease based on laboratory, radiographic, and endoscopic data (Table 1)
- All patients completed symptom surveys. Eleven and 13 patients completed 6-week and 3-month dietary adherence questions, respectively
- All patients (p=0.02) and those with CD (p=0.04) experienced improvement in their IBS-SSS scores from the initial visit to week 6 with a mean paired difference of 79 and 106, respectively (Figure 2)
- CD (p=0.006) and UC (p=0.04) patients experienced improvement in disease activity scores over 6 weeks with a mean paired difference of 2.8 and 4.5 in HBI and SCCAI, respectively (Figures 3 and 4)
- Over 6 weeks, there was a 27% decrease in reported loose stools within the total sample (p=0.046)
- Six-week dietary adherence was 67% with an adherence difficulty of 4.54/10, while the 3-month values were 66% adherence and difficulty of 5/10

Figure 2. IBS-SSS Mean Scores

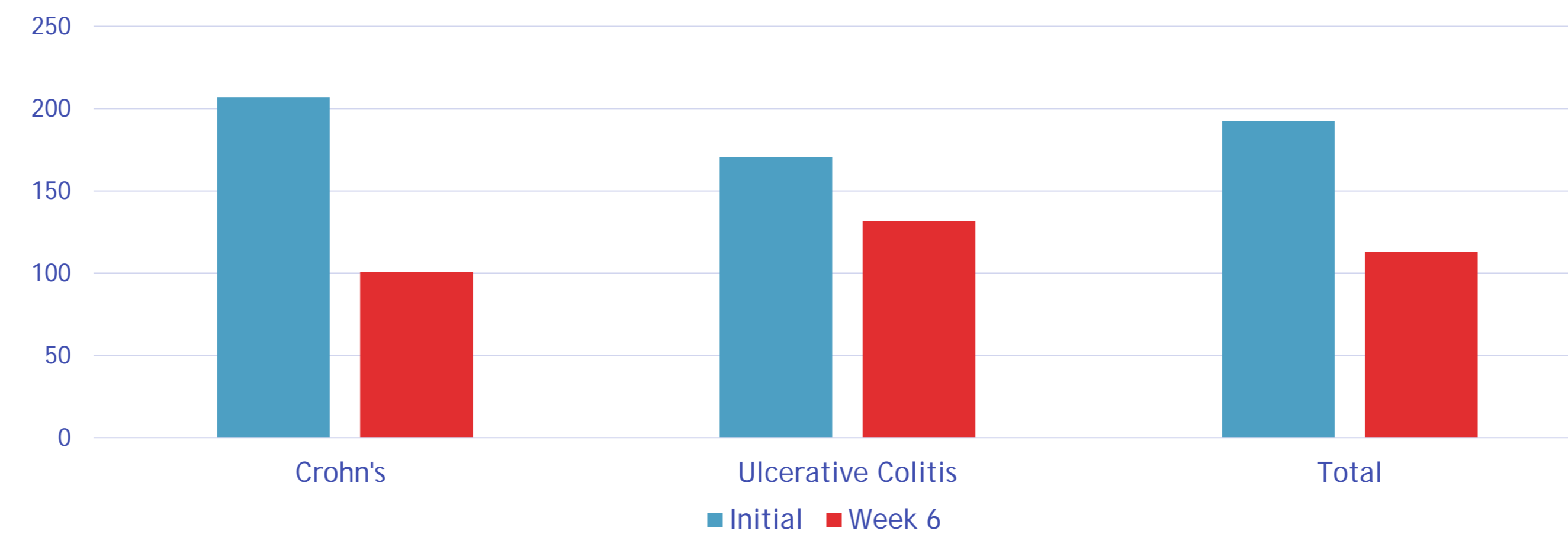


Figure 3. HBI Mean Scores in Crohn's Patients

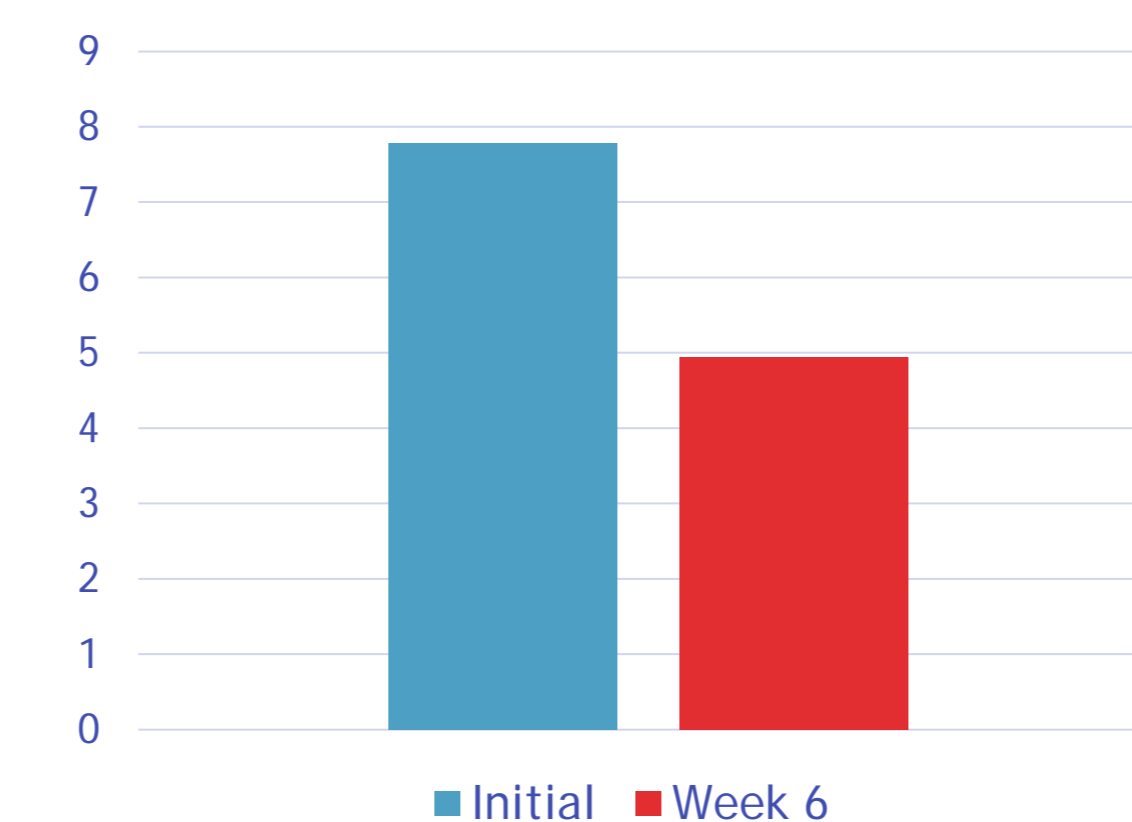
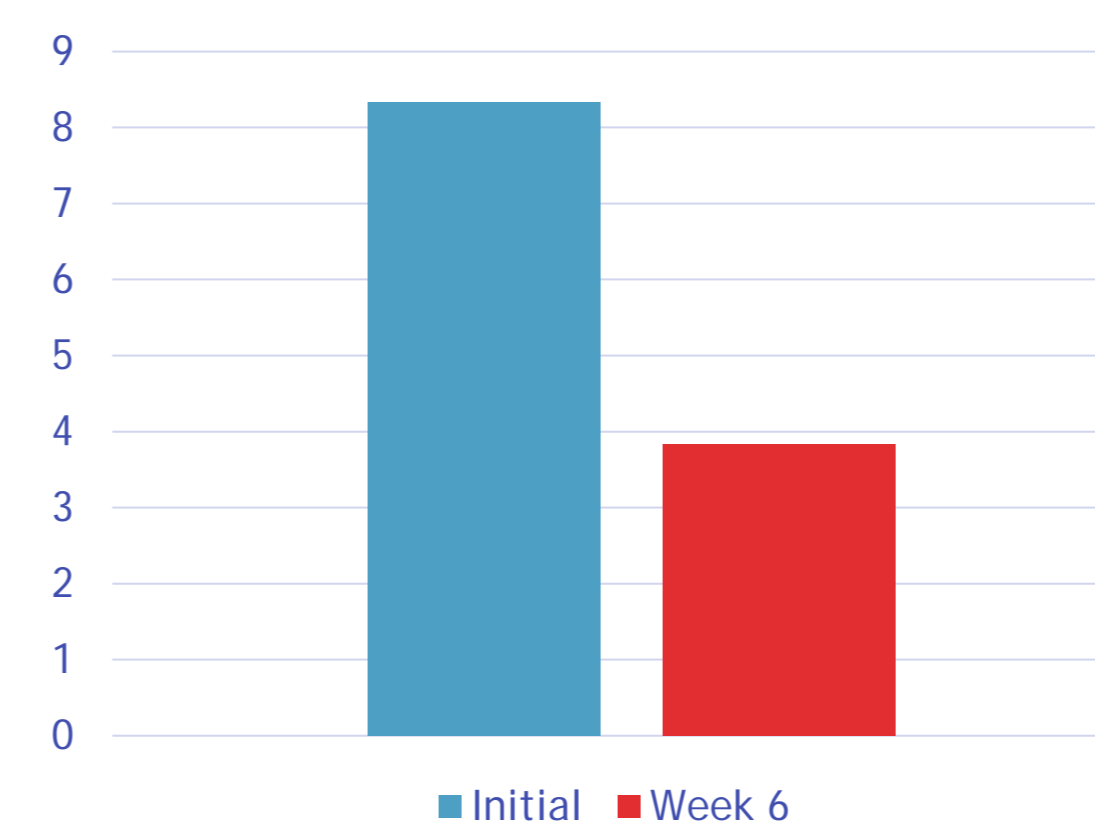


Figure 4. SCCAI Mean Scores in Ulcerative Colitis Patients



Discussion

- This study suggests that development of personalized diet plans may lead to positive outcomes from both provider and patient perspectives
- Patients' dietary adherences of >50% with low difficulty scores demonstrates the importance of interdisciplinary care between GI providers and dietitians
- Further investigation into dietary interventions managed by a RD may provide additional insight into patient reported outcomes and impact on disease activity

Works Cited

- Carreras-Torres R, Ibáñez-Sanz G, Obón-Santacana M, Duell EJ, Moreno V. Identifying environmental risk factors for inflammatory bowel diseases: a Mendelian randomization study. *Sci Rep.* 11 06 2020;10(1):19273. doi:10.1038/s41598-020-76361-2
- Limdi JK, Aggarwal D, McLaughlin JT. Dietary Practices and Beliefs in Patients with Inflammatory Bowel Disease. *Inflamm Bowel Dis.* Jan 2016;22(1):164-70. doi:10.1097/MIB.0000000000000585