

Impact of Integrated Health System Specialty Pharmacy Services and Associated Patient Factors on Inflammatory Bowel Disease Outcomes

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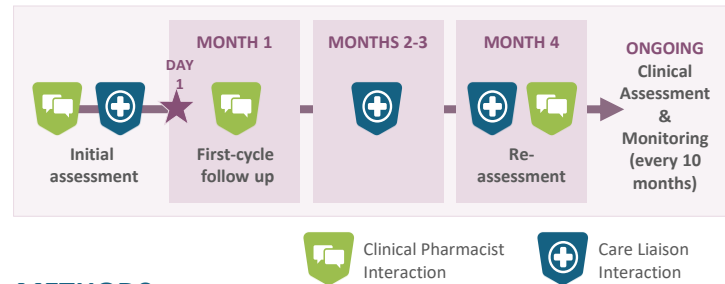
DISCLOSURES

The authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

BACKGROUND

- Inflammatory bowel disease (IBD) encompasses Crohn's disease (CD) and ulcerative colitis (UC). While CD and UC are clinically diverse, both are characterized by chronic inflammation of the gastrointestinal tract.
- Research suggests that a treat-to-target approach be used to manage this population, utilizing subjective and objective markers of disease.¹
- Literature exists to support the role of a clinical pharmacy team in improving medication access, adherence, and quality of care; however, there are limited data on the pharmacy role in improving IBD outcomes.²⁻⁴
- This study aims to assess the impact of integrated health system specialty pharmacy [HSSP] services on IBD outcomes.

Figure 1: HSSP IBD Patient Journey



METHODS



Study Design: Multi-center, retrospective observational analysis of adult and pediatric IBD patients receiving biologic or small molecule agents from HSSPs between January 1, 2022 and December 31, 2023

- Inclusion Criteria:** Patients enrolled in the HSSP services for ≥ 4 months with a baseline and follow-up assessment of corticosteroid use, flares, and pain scores. Patients with ICD-10 codes unrelated to CD and UC were excluded.



Primary Outcome: percent reduction in corticosteroid usage from baseline

Secondary Outcome: percent reduction in IBD flares from baseline and reduction in average pain score from baseline



Data Identification: Data collected included age, sex, IBD medication, ICD-10 code, primary insurance type, treatment status, out-of-pocket cost, days on service, medication adherence measured by the proportion of days covered (PDC), corticosteroid use, number of IBD flares, and pain severity.



Analysis: A logistic regression model was utilized to evaluate the impact of various factors on changes in steroid use, flares, and pain.

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RESULTS

Table 1 summarizes patient characteristics and associated patient factors influence on steroid use, flares, and pain. The regression model showed that steroid-free and symptom-free patients at baseline were more likely to maintain positive outcomes at follow-up. We observed a 69% reduction in corticosteroid (**Figure 2**), 62% decrease in disease flares (**Figure 3**), and an average decrease in pain scores of 16% (**Figure 4**). The mean PDC was 94.5%.

Table 1: Patient Characteristics and Associated Patient Factors

Characteristic	N = 1373	Steroid Use	Flares	Pain
Age (n, %)				
<65	1198 (87%)	-	-	-
≥65	175 (13%)	0.123	0.150	0.632**
Sex (n, %)				
M	655 (48%)	0.361*	0.422***	0.123
F	688 (50%)	-	-	-
Unknown	30 (2%)	-0.448	0.439	0.713
Diagnosis (n, %)				
UC	398 (29%)	-0.627***	-0.180	0.381**
CD	975 (71%)	-	-	-
Treatment Status (n, %)				
Experienced	1119 (82%)	-	-	-
Naïve	254 (18%)	0.173	0.071	0.037
Steroid Free at Baseline (n, %)	1061 (77%)	2.115***		
Symptom Free at Baseline (n, %)	882 (64%)		0.940***	1.845***
Days of Service ² (Range)	428 (129-727)	-0.002**	0.001*	0.0002
Insurance Type (n, %)				
Commercial	629 (46%)	-	-	-
Medicaid	105 (8%)	-0.558	-0.272	-0.255
Medicare	209 (15%)	-0.162	-0.103	-0.255
Unknown/Other	430 (31%)	0.345	0.091	0.057
Copay (n, %)				
> \$0	527 (38%)	-	-	-
= \$0	846 (62%)	0.143	-0.118	0.138

*p<0.1; **p<0.05; ***p<0.01; ²Median

Figure 2: Corticosteroid Use

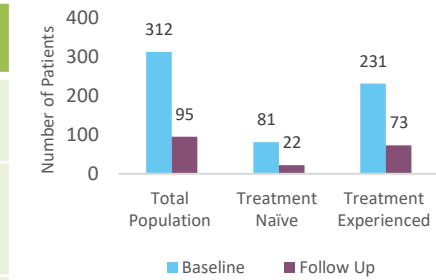


Figure 3: IBD Flares

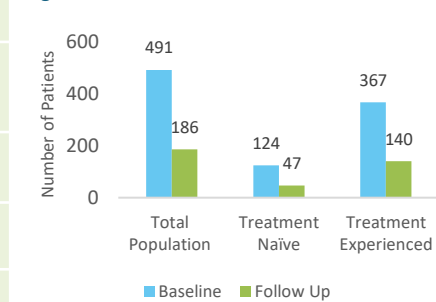
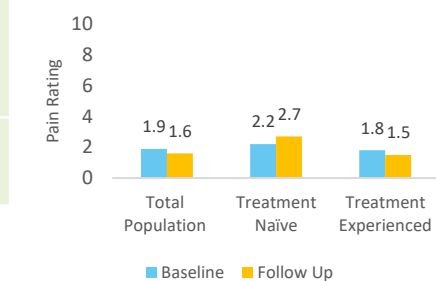


Figure 4: Average Pain



CONCLUSIONS

- IBD patients enrolled in HSSP services demonstrated clinically meaningful responses illustrated by the reduction in corticosteroid use, IBD flares, and average pain score.
- Patients achieved a consistently high adherence rate of 94.5%. This high adherence rate suggests the value of the HSSP in promoting adherence to specialty therapies.
- Steroid-free and symptom-free status at baseline are associated with positive outcomes, but additional analysis is needed to better identify what factors contribute to IBD outcomes.
- These findings highlight the potential for sustained disease control and improved quality of life. Additionally, they contribute to mitigating the risks associated with long-term corticosteroid use.