Poster P4271

Effectiveness of A Community-based Inflammatory Bowel Disease Medical Home Compared to Patients not in a Medical Home

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Key Findings

- **Patients in an IBD medical home had improved outcomes including higher steroid-free remission rates versus patients receiving standard of care.**
- **Completion of guideline recommended preventive health measures were significantly higher in the IBD home patients.**
- **IBD home patients utilized significantly more mental health and social support services.**
- **Establishment of a multi-disciplinary patient-centered medical home for IBD patients is feasible in the community.**

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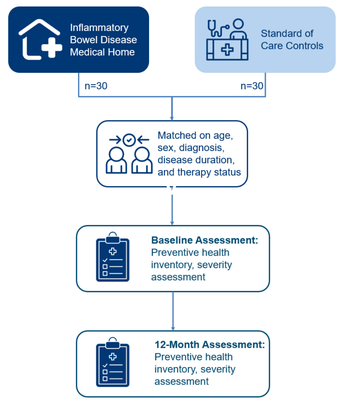
Background

- Inflammatory bowel disease (IBD) affects 2.4 million Americans and is associated with significant morbidity and reduced quality of life.
- Patient-centered medical homes for IBD have been shown to improve clinical outcomes and reduce healthcare utilization in academic institutions but data are lacking in community practice.
- Our objective was to assess the efficacy and value of multidisciplinary IBD home programs in 2 large private practices compared to control patients receiving standard of care (SOC) management in the community.

Methods

- 60 patients were assessed overall, with 30 IBD home patients and 30 case matched controls.
- Patients were matched for age, sex, diagnosis of either Crohn's disease (CD) or ulcerative colitis (UC), disease duration and initiation or change of an advanced therapy.
- Researchers reviewed the electronic medical records for patients at the time of advanced therapy initiation or change and twelve-months post.
- The proportion of patients in remission and steroid free remission were evaluated at each time point.
- A series of 14 preventive health measures, identified from prevailing practice guidelines, were extracted for each patient at each point in care, baseline and follow-up.
- Preventive health measures included vaccination status, bone density measurement, dermatology assessment, screening for tobacco use disorder, nutrition status, and behavioral health status.
- All preventive health measures were defined by binary indicators at each time point. Compliance with preventive health guidelines and rate of remission and steroid free remission in each group were compared with Chi Square.

Study Design



Patient Characteristics

Table 1. Demographics and Patient Characteristics

	All Patients (N=60)	IBD Home (n = 30)	Control (n=30)
Age, yr, mean (SD)	43.6 (16.4)	43.7 (16.0)	43.5 (17.0)
Gender, n (%)			
Female	46 (76.7)	23 (76.7)	23 (76.7)
Male	14 (23.3)	7 (23.3)	7 (23.3)
Diagnosis, n (%)			
Crohn's Disease	34 (56.7)	17 (56.7)	17 (56.7)
Ulcerative Colitis	26 (43.3)	13 (43.3)	13 (43.3)
Disease Duration, yr, median (IQR)	8 (4-16)	8.5 (4-16)	7.5 (3-16)
Calculated Age at Diagnosis, yr, mean (SD)	32.4 (14.7)	31.6 (14.4)	33.1 (15.1)
Oral Steroids at Baseline, n (%)	28 (46.7)	11 (36.7)	17 (56.7)
Biologic at Baseline, n (%)	57 (95)	28 (93.3)	29 (96.7)
Advanced Therapy Agent, n (%)			
Adalimumab	12 (20)	4 (13.3)	8 (26.7)
Infliximab	15 (25)	10 (33.3)	5 (16.7)
Ozanimod	1 (1.7)	1 (3.3)	0
Risankizumab	1 (1.7)	1 (3.3)	0
Upadacitinib	7 (11.7)	5 (16.7)	2 (6.7)
Upadacitinib and Infliximab	1 (1.7)	1 (3.3)	0
Ustekinumab	14 (23.3)	7 (23.3)	7 (23.3)
Vedolizumab	9 (15)	1 (3.3)	8 (26.7)
Disease Severity at Baseline, n (%)			
Remission	21 (35)	9 (30)	12 (40)
Mild	8 (13.3)	4 (13.3)	4 (13.3)
Moderate	17 (28.3)	11 (36.7)	6 (20)
Severe	14 (23.3)	6 (20)	8 (26.7)

Clinical Outcomes

Figure 2. Steroid Use and Remission Rate[a]

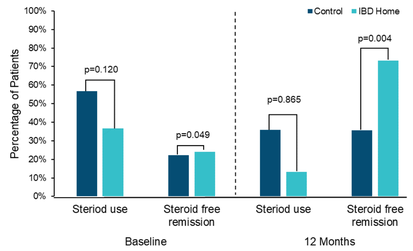


Figure 3. Disease Severity at 12 Months

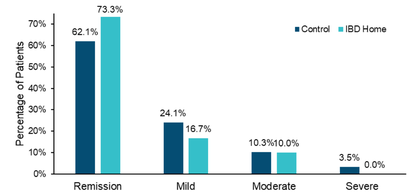
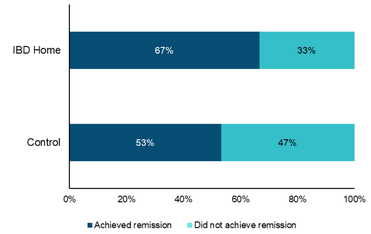


Figure 4. Percentage of Patients Achieving Remission



Preventive Health Measures

Figure 5. Vaccination Counseling and Administration Rate[b]

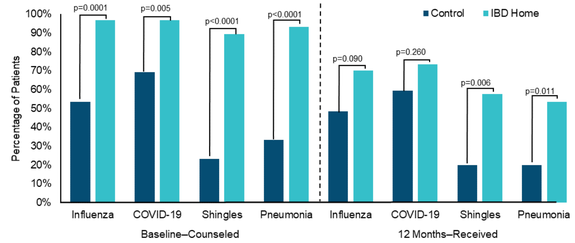
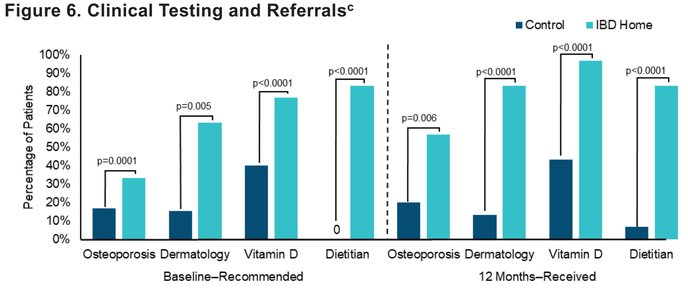
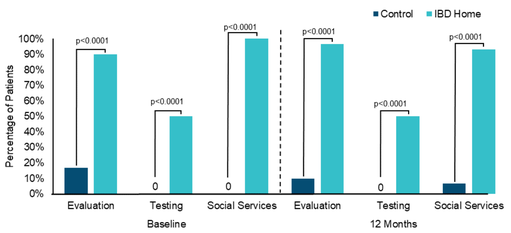


Figure 6. Clinical Testing and Referrals[c]



Mental Health Measures

Figure 7. Mental Health Screening and Referrals



DISCUSSION

In a rigorous, matched, 12-month, longitudinal cohort of patients receiving care in an IBD home vs. controls receiving SOC, patients enrolled in the medical home were found to have significant benefits.

- At 12-months, IBD home patients were significantly more likely to have achieved steroid-free remission and less likely to use steroids than controls (73% vs 36%, P=0.004). Among IBD home patients not in remission at baseline, 67% achieved remission at follow-up compared to only 53% of those not in remission at baseline in the control arm.
- Patients treated in an IBD medical home were significantly more likely to be vaccinated for influenza (70% vs 48.3%, P=0.09), shingles (57.7% vs 20%, P=0.006), and pneumococcal pneumonia (53.3% vs 20%, P=0.011) at 12-months compared to those who received SOC.
- Over 80% of patients (83.3%) of those treated in the IBD home environment were referred to a registered dietitian compared to 6.7% of controls (P<0.0001).
- Over 90% of patients (93.3%) in the IBD home group received a referral to social services compared to only 6.7% in the control group (P<0.0001).
- Overall, patients who received care in an IBD home were significantly more likely to be in remission and steroid free remission, and to utilize preventive health services and social services.
- This care model warrants additional study in a larger population with confirmation of long-term reduction of IBD disease complications and quality of life.

Abbreviations and Footnotes

Abbreviations: IBD, Inflammatory bowel disease; IQR, interquartile range; SD, standard deviation; SOC, standard of care.

[a]Steroid use included oral steroids. Steroid-free remission was defined as those in remission not receiving a concurrent oral steroid. Remission was defined as a modified Harvey Bradshaw score <5 for patients with CD and a pMayo score ≤1 for patients with UC.

[b]Vaccination assessment included only counseling at baseline and receipt of the vaccination at 12 months.

[c]Clinical testing was assessed as recommended to receive at baseline and received at 12 months. Referrals for dermatologic exam and dietitian consult was assessed as recommended to obtain at baseline and completed at 12 months.

References

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