VANDERBILT HEALTH | Specialty Pharmacy

Implementation of a Collaborative Pharmacy Practice Agreement in an Inflammatory Bowel Disease Clinic

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Background

A collaborative pharmacy practice agreement (CPPA) enables pharmacists to prescribe and monitor medications on behalf of the provider as outlined by the agreement.

Purpose

Evaluate the impact of implementing a CPPA within an integrated health-system specialty pharmacy and an inflammatory bowel disease (IBD) clinic.

Methods

Study Design
Single-center, retrospective cohort analysis.
Quality improvement survey to IBD nursing staff 12 months after CPPA implementation.

Study Setting
Vanderbilt IBD Clinic
Vanderbilt Specialty Pharmacy (VSP)

Study Sample
Adult patients with IBD that have a self-administered specialty prescription ordered between April 15, 2023 – April 14, 2024 (pre-implementation) or April 15, 2024 – April 14, 2025 (post-implementation)

Evaluate the number of specialty prescriptions ordered by pharmacists after CPPA implementation — Aim 1

Assess IBD nursing staff perceptions on CPPA implementation and use — Aim 2

Pre-CPPA Process

- PharmD informs nurse of medication approval
- Nurse orders medication to appropriate pharmacy
- Nurse orders refills per clinic protocol (lab and appointment requirements)

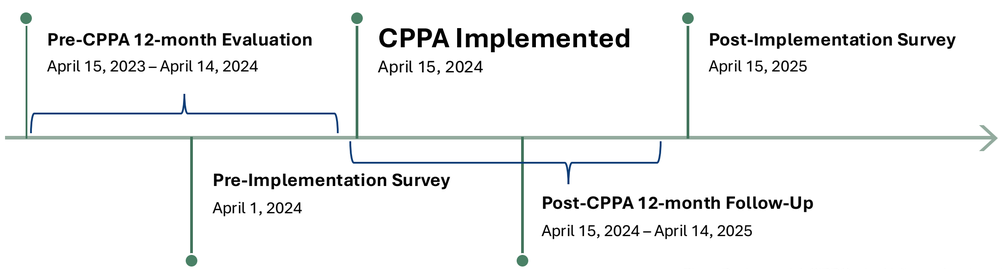
Post-CPPA Process

- PharmD orders medication to appropriate pharmacy once approval obtained
- PharmD reviews patients' labs and appointment requirements before authorizing refills

CPPA Elements

- Ordering new medications
- Ordering refills for patients using VSP
- Ordering SIBDQ assessments for monitoring

Figure 1. Study Timeline

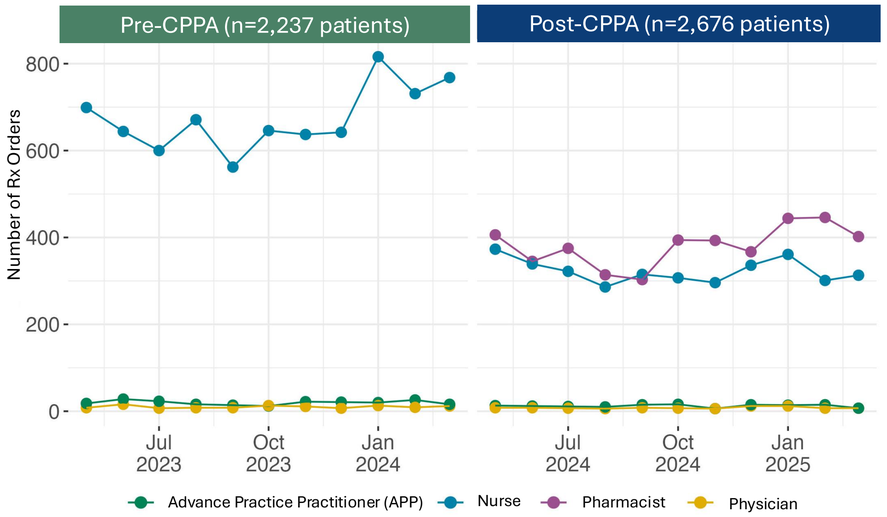


CONCLUSION

- Implementing a CPPA in an IBD clinic decreased the number of specialty prescriptions ordered by nursing staff over 50%.
- Prescription renewals were obtained faster with a CPPA implemented.
- Nursing staff identified improved specialty prescription management and safety since CPPA implementation, having a positive impact on patient care.

Results

Figure 2. Prescription (Rx) Order Counts and Prescription Changes



	Pre-CPPA Rx Counts (n=8,384) n (%)	Post-CPPA Rx Counts (n=8,708) n (%)
Nurse	8,027 (96)	3,898 (45)
Pharmacist	0 (0)	4,577 (53)
APP	232 (3)	142 (2)
Physician	125 (1)	91 (1)

Refills received 4 days sooner
Average: (22 vs. 18) (p-value < 0.001)

51% Reduction in RN prescription orders (8,027 vs. 3,898)

PharmD prescription orders increased by 53% points (0 vs. 4,577)

Table 1. Specialty Medications Ordered by Pharmacists

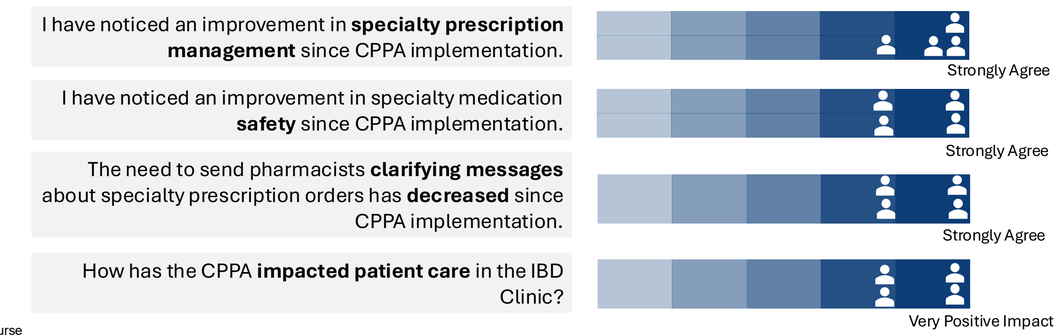
Medication	N=4,577 (%)
risankizumab	1,091 (23.8)
adalimumab	1,039 (22.7)
ustekinumab	1,020 (22.3)
upadacitinib	955 (20.9)
vedolizumab SC	212 (4.6)
infliximab SC	71 (1.6)
tofacitinib	66 (1.4)
golimumab	46 (1)
certolizumab pegol	36 (0.8)
mirkizumab	20 (0.4)
ozanimod	13 (0.3)
guselkumab	8 (0.2)

Figure 3. Monthly Pharmacist Orders (range 4-7 pharmacists)

Monthly median prescription orders:
391 prescriptions
(IQR 362-403)

Monthly median SIBDQ orders:
67 orders
(IQR 62-70)

Figure 4. Nursing Post-CPPA Survey Results (n=4)



PharmD: pharmacist, SIBDQ: short inflammatory bowel disease questionnaire, SC: subcutaneous, Rx: prescription, RN: registered nurse