Co-Management of Specialty Medications by a Dermatologist and Pharmacist: A Pilot Study

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Background and Rationale

- Therapeutic advances have transformed treatment of many dermatologic conditions but have also increased monitoring and administrative burden.[1]
- Research suggests that collaborations between dermatologists and pharmacists that comprehensively comanage patients on a specialty medication can reduce time to first prescription fill and increase the likelihood of medication approval.[2-4]
- This study examines the impacts of such a program for a single dermatologist-pharmacist dyad during its initial pilot phase.

Methods

- We conducted a retrospective cohort study of patients prescribed a specialty medication by one dermatologist between January 2021-October 2022.
- Patients seen between November-December 2021 were excluded as the program was undergoing initial roll-out during this time.
- Fisher's exact test was utilized to compare the percentage of patients whose preferred medication was approved pre- and post-implementation.
- Student's t-test was utilized to compare time from initial prescription to first prescription fill pre- and post-implementation.

Results

- 190 patients were included, with 64 pre-implementation patients and 126 post-implementation patients.
- Dupilumab and risankizumab were the most prescribed medications, comprising 53.1% of patients (Table 1).
- The percentage of patients whose preferred medication was approved increased from 93.8% to 99.2% ($p<0.05$).
- The mean number of days from prescription to first fill decreased from 18.5 [95% CI: 15.0-22.8] days to 13.1 [11.1-15.5] post-implementation ($p<0.05$) (Table 2).

Results

Table 1. Classes of specialty medications.

	Medication Class	Specialty Medication	Pre-Implementation (64)	Post-Implementation (126)
Oral Medications	JAK Inhibitor	Baricitinib	100.0% (1)	0.0% (0)
		Tofacitinib	30.0% (3)	70.0% (7)
		Upadacitinib	0.0% (0)	100.0% (3)
	PDE-4 Inhibitor	Apremilast	22.7% (5)	77.3% (17)
Injectable Biologics	IL-4Rα Inhibitor	Dupilumab	40.3% (27)	59.7% (40)
	IL-12 & IL-23 Inhibitor	Ustekinumab	75.0% (9)	25.0% (3)
	IL-13 Inhibitor	Tralokinumab-Ldrm	0.0% (0)	100.0% (2)
	IL-17A Inhibitor	Ixekizumab	75.0% (3)	25.0% (1)
		Secukinumab	50.0% (2)	50.0% (2)
	IL-17RA Inhibitor	Brodalumab	0.0% (0)	100.0% (1)
	IL-23 Inhibitor	Guselkumab	0.0% (0)	100.0% (8)
		Risankizumab-Rzaa	14.7% (5)	85.3% (29)
	anti-IgE Monoclonal Antibody	Omalizumab	0.0% (0)	100.0% (3)
	TNF-α Inhibitor	Adalimumab	50.0% (8)	50.0% (8)
		Certolizumab Pegol	33.3% (1)	66.7% (2)

JAK: Janus kinase; PDE-4: Phosphodiesterase-4; IL: Interleukin; TNF-α: Tumor Necrosis Factor α

Results (continued)

Table 2. First choice medication approval rates and mean days to first prescription fill.

	Pre-Implementation	Post-Implementation	p
First Choice Therapy Approved [%]	N=64	N=126	0.0448*
	93.8%	99.2%	
Mean Days to First Fill, Mean [95% Confidence Interval]	N= 60	N=124	0.0162*
	18.5 [15.0-22.8]	13.1 [11.1-15.5]	

* Indicates statistically significant

Discussion

- This pilot study demonstrates that co-management of specialty medications by a dermatologist and pharmacist can increase the rate of approval of the preferred drug and decrease time for patients to start medications by nearly a week.
- This may translate to better clinical outcomes, greater patient satisfaction, and reduced overall healthcare costs.[5]
- Focus on a single dermatologist-pharmacist dyad eliminates potential confounding of individual or practice workflows.
- However, the single dyad and relatively short time period limits generalizability.
- As the program has continued to expand, research including data from multiple physicians and on impacts on clinical outcomes is needed.

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