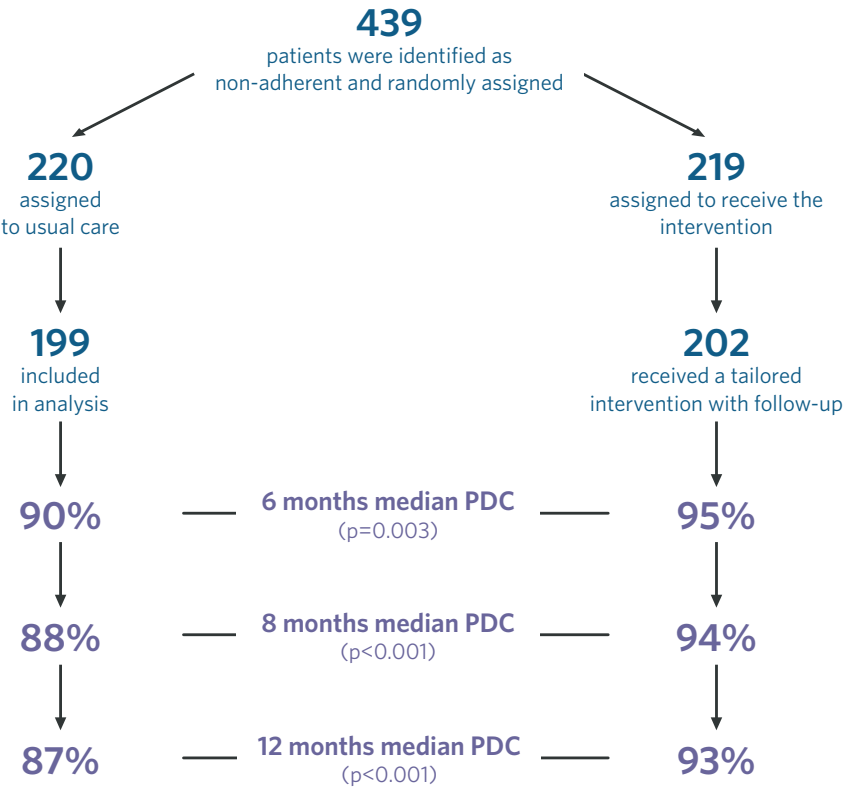
Patient-Tailored Pharmacist Interventions to Improve Specialty Medication Adherence: A Randomized Controlled Trial

Amanda M. Kibbons, PharmD, Ryan Moore, MS, Leena Choi, PhD, Autumn D. Zuckerman, PharmD, BCPS, AAHIVP, CSP

Quick Facts



Patient-tailored interventions to address poor adherence to specialty medications resulted in significant adherence improvement compared to usual care.

Kibbons AM, Peter M, DeClercq J, et al. Pharmacist Interventions to Improve Specialty Medication Adherence: Study Protocol for a Randomized Controlled Trial. *Drugs Real World Outcomes.* 2020;7(4):295-305. doi:10.1007/s40801-020-00213-8

Abbreviations: PDC = proportion of days covered

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Conclusion

Patient-tailored interventions to address poor adherence to specialty medications resulted in significant adherence improvement compared to usual care:

8-month PDC 94% (intervention) vs. 88% (usual care), p<0.001

Specialty pharmacies should target nonadherent patients for adherence interventions.

Purpose

Evaluate the impact of patient-tailored complex interventions on adherence to specialty medications as compared to usual care.

Setting and Patient Sample

Single-center, pragmatic, randomized controlled trial at an integrated health-system specialty pharmacy

Patients included for pharmacist review:
1) PDC <0.9 over the previous 4 and 12 months and 2) filled a specialty medication at least 4 times in the previous 12 months from select specialty clinics

Results

Figure 1. Study Methods

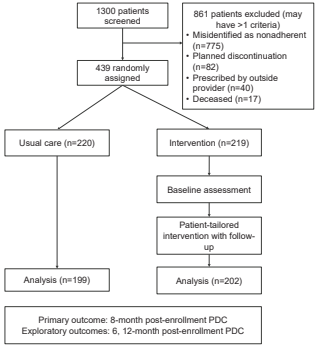

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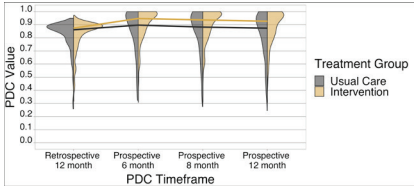
Table 1. Baseline Characteristics

	N=439
Age- mean (±SD)	51 (±18)
Female	299 (68%)
White	360 (82%)
Commercial Insurance	255 (58%)
Duration of Therapy ≥ 1 year	292 (67%)
Clinic	
Adult Miscellaneous	57 (13%)
Lipids	75 (17%)
Multiple Sclerosis	86 (20%)
Pediatric	31 (7%)
Pulmonary	38 (9%)
Rheumatology	152 (35%)
12-month Baseline PDC-median (IQR)	0.87 (0.78, 0.9)

Figure 2. PDC by Treatment Group and Time



PDC Timeframe	Usual Care Median (IQR)	Intervention Median (IQR)	P-value
Baseline 12-Month	0.86 (0.78, 0.89)	0.87 (0.78, 0.9)	0.21
Prospective 6-Month	0.9 (0.76, 0.98)	0.95 (0.84, 1)	0.003
Prospective 8-Month	0.88 (0.75, 0.97)	0.94 (0.84, 0.99)	<0.001
Prospective 12-Month	0.87 (0.72, 0.95)	0.93 (0.82, 0.98)	<0.001

Figure 3. Reason for Nonadherence by Clinic

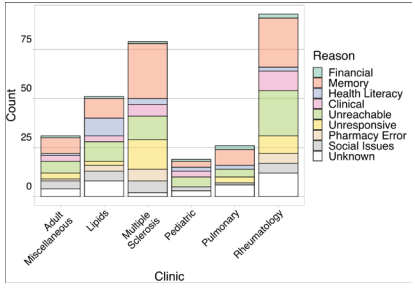


Figure 4. Patient-tailored Interventions

Baseline Assessment

- Can you tell me how you take [med]?
- What concerns do you have about [med]
- Have you experienced any side effects?
- How do you remember to take [med]?
- How many doses have you missed in last 30 days?
- Can you tell me why you take [med]?

Nonadherence Reason	Count
Memory	82
Unreachable	60
No known reason	35
Unresponsive*	32
Clinical	25
Social issues	23
Health Literacy	19
Health-system determinants**	15
Financial	8

Most Common Interventions

- Sent instructions for smartphone reminders
- Mailed daily pill boxes
- Created unreachable action plans
- Recommended follow up
- Addressed clinic or pharmacy errors
- Provided encouragement
- Discussed financial assistance

*Unresponsive = patient who did not comply with the necessary requirements for continuing treatment
**Health-system determinant = clinic or pharmacy error resulting in refill delays

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