Patient-tailored pharmacist interventions to improve specialty medication adherence: a randomized controlled trial

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Disclosures and Disclaimers

There are no financial relationships with commercial interests to disclose and this presentation does not include discussion of off-label or investigational use.

This presentation includes information based on unpublished data.
CPE Information

Target Audience:
ACPE#:
Activity Type:

(APhA will complete this information.)
Learning Objective

• Identify the most common reason for nonadherence to specialty medications
1. The most common reason for specialty medication nonadherence falls into which category:
   A. Clinical
   B. Memory
   C. Financial
   D. Health literacy
Study Question and Definitions

Study question
• Can pharmacists improve adherence to specialty medications by providing patient-tailored interventions?

Study definitions
• Specialty medications – complex medications requiring intense management
• Proportion of days covered (PDC) - covered days in an observation window/days in observation window; uses refill history to estimate adherence
• Nonadherent – PDC < 0.9
• Improve adherence – ≥ 5% increase in PDC over the control arm at 8 months
Enrollment criteria

Inclusion Criteria
• \( \geq 4 \) fills of the same specialty medication in previous 12 months
• PDC < 0.9 in the previous 4 and 12 months

Exclusion Criteria
• Misidentified as nonadherent
• Planned discontinuation
• Prescription from outside provider
• Deceased
Enrolled 439 patients

Usual care (n= 220)
- Baseline assessment
- Patient-tailored intervention
- Follow up as needed

Intervention (n= 219)
- Baseline assessment
- Patient-tailored intervention
- Follow up as needed

Primary outcome: 8-month post-enrollment PDC
Exploratory outcomes: 6 and 12-month post-enrollment PDC
Baseline Characteristics

- No significant differences between two arms
- Most patients were female (68%) and white (82%)
- Median age of 53 years (interquartile range [IQR] 40, 64)
- Patients were most commonly from the adult rheumatology (35%) or multiple sclerosis (20%) clinics
- Median baseline 12-month PDC
  - Intervention: 0.87 ([IQR] 0.78, 0.90)
  - Control: 0.86 ([IQR] 0.78, 0.90)
Usual care arm

• Specialty pharmacists embedded in clinic and manage therapies
• Refill questionnaires gauge response to therapy, adverse effects, healthcare utilization and adherence
• Pharmacist assessments done routinely
• Clinic-specific protocols outline patient monitoring
## Intervention arm

### 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]?

### Categories of Nonadherence

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory</td>
<td>82</td>
</tr>
<tr>
<td>Unreachable</td>
<td>60</td>
</tr>
<tr>
<td>No known reason</td>
<td>35</td>
</tr>
<tr>
<td>Clinical</td>
<td>25</td>
</tr>
<tr>
<td>Unresponsive</td>
<td>24</td>
</tr>
<tr>
<td>Social issues</td>
<td>23</td>
</tr>
<tr>
<td>Health Literacy</td>
<td>19</td>
</tr>
<tr>
<td>Health-system determinants</td>
<td>15</td>
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<tr>
<td>Financial</td>
<td>8</td>
</tr>
</tbody>
</table>

### 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
Can pharmacists improve adherence by providing patient-tailored interventions?

A 12-month retrospective baseline PDC was not significantly different between the 2 arms

- **Intervention vs. usual care**
  - At 6 months: 0.92 vs. 0.87, p=0.004
  - **At 8 months: 0.89 vs. 0.83, p=0.001**
  - At 12 months: 0.85 vs. 0.78, p=0.012

Intervention patients were 1.8 times more likely to have a higher PDC than control patients
Reasons for Nonadherence by Clinic

- Reasons for nonadherence distributed evenly among clinics.
- MS clinic with higher rates of unresponsive and memory reasons.
Median 8-month post-enrollment PDC by clinic

- Pediatric patients and patients from adult rheumatology showed the most improvement in adherence.
- Adherence in patients from Lipid and MS clinics did not improve compared to the control group.
Change in PDC by reason for nonadherence

- Unresponsive patients had the greatest increase in PDC
- Essentially no change in PDC in patients having a clinical reason for nonadherence
- Very little change in adherence in patients having social issues
Conclusion

• The most common reasons for nonadherence to specialty medications was due to memory issues
• The most effective interventions did not require clinical expertise
• Targeting patients for interventions based on clinic and reason for nonadherence may be an efficient way to address nonadherence to specialty medications
Assessment Questions

1. The most common reason for specialty medication nonadherence falls into which category:
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Contact Information

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