Primary Medication Non-Adherence Among Patients Requiring Long-Term Treatment

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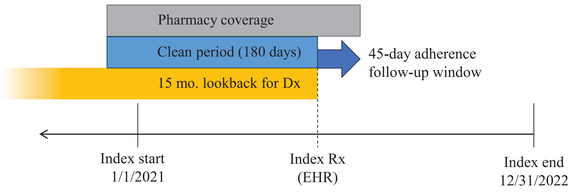
Background

- Not filling the first prescription of a new medication, primary medication non-adherence, can undermine the efficacy of treatments for chronic diseases, lead to worse long-term outcomes, and require more downstream expensive treatment interventions.
- Compared to secondary adherence and persistence, primary non-adherence is challenging to track and not as well characterized.
- A better understanding of primary non-adherence may help identify unique barriers to the care delivery process, needed to ensure patients receive necessary medications.
- This is particularly important for medications which may have high out of pocket costs to patients, such as oral-anticoagulants (OACs) or oral prostate cancer medications (OPCMs).

Study Objective

Characterize primary medication adherence and associated patient characteristrics for two medication classes with high out of pocket costs.

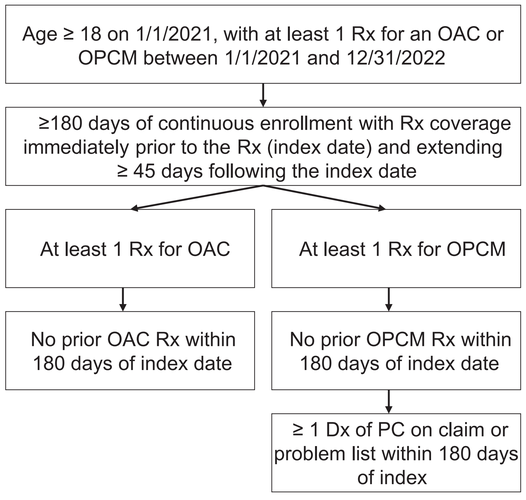
Methods



Study Population

31,928 adults with prescriptions for OAC and 1,692 adults with prescriptions for OPCM were included.

- Patients were indexed on the date of first prescription for a new medication in 2021 or 2022.
- Logistic regression was used to estimate the adjusted association of various patient characteristics with non-adherence.



Factors Associated with Primary Non-Adherence

Oral Anticoagulants: 23.4% of OAC Patients Had Primary Nonadherence

Adjusted odds of OAC adherence were:

16% lower among men

Not significantly associated with patient race

55% lower for part D patients vs. commerical

24% lower for patients with AFIB compared to VTE

Patient Characteristics for OAC patients	Overall n=31928	Nonadherent n=7517	Adherent n=24411	p
Age (%)				<0.001
Age <55	1860 (5.8)	271 (3.6)	1589 (6.5)	
Age 55-64	2968 (9.3)	510 (6.8)	2458 (10.1)	
Age 65-74	10720 (33.6)	2570 (34.2)	8150 (33.4)	
Age 75-84	11332 (35.5)	2749 (36.6)	8583 (35.2)	
Age >84	5048 (15.8)	1417 (18.9)	3631 (14.9)	
Race (%)				0.16
White	27764 (87.0)	6572 (87.4)	21192 (86.8)	
Black	2486 (7.8)	568 (7.6)	1918 (7.9)	
Asian	378 (1.2)	72 (1.0)	306 (1.3)	
Other/Unknown	1300 (4.1)	305 (4.1)	995 (4.1)	
Male Sex (%)	15633 (49.0)	3871 (51.5)	11762 (48.2)	<0.001
Encounter Type (%)				<0.001
Outpatient	10280 (32.2)	2430 (32.3)	7850 (32.2)	
Emergency	1130 (3.5)	191 (2.5)	939 (3.8)	
Inpatient	3144 (9.8)	679 (9.0)	2465 (10.1)	
Other	5426 (17.0)	1577 (21.0)	3849 (15.8)	
Unknown	11948 (37.4)	2640 (35.1)	9308 (38.1)	
Indication Dx (%)				<0.001
Afib	11222 (35.1)	2844 (37.8)	8378 (34.3)	
VTE	4587 (14.4)	838 (11.1)	3749 (15.4)	
PAD	766 (2.4)	182 (2.4)	584 (2.4)	
CeVD	893 (2.8)	197 (2.6)	696 (2.9)	
Multiple	8463 (26.5)	2133 (28.4)	6330 (25.9)	
Unknown	5997 (18.8)	1323 (17.6)	4674 (19.1)	

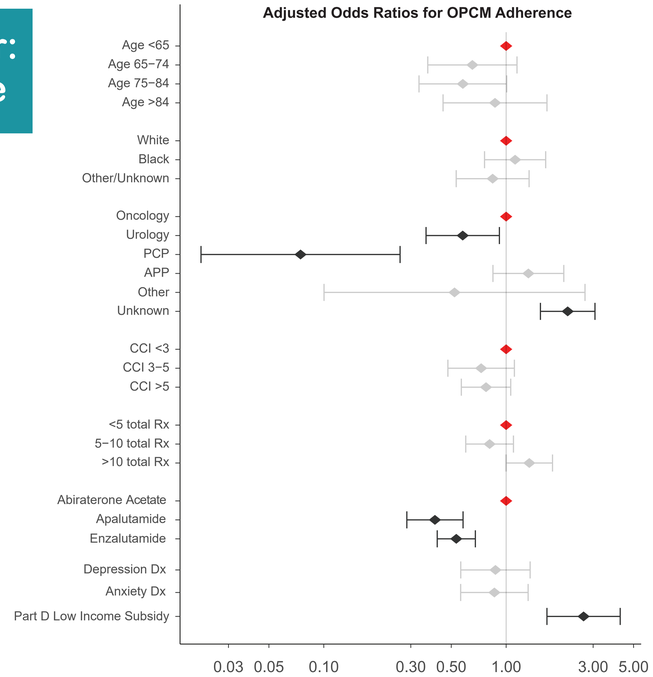
Oral Prostate Cancer: 31% Non-Adherence

Adjusted odds of OPCM adherence were:

Not significantly associated with patient race

Improved by part-D low-income subsidy

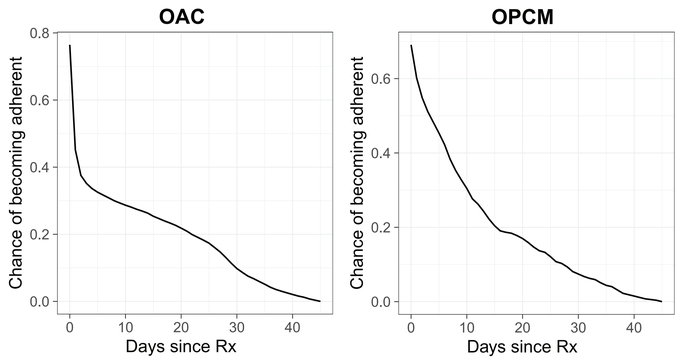
Sample size for this patient population was low, making it challenging to identify characteristics associated with nonadherence.



Adherence Over Time

Adherence was evaluated over time for patients who had not yet filled their prescription. The percentage of patients who had not yet filled their prescription but would later go on to fill is shown.

Patients who filled prescriptions were much more likely to do so within the first few days. Patients waited longer than one week were much less likely to fill.



- Most patients who filled an Rx for OAC did during their first visit or immediately after.
- For patients who did not fill within 10 days, only 28% went on to fill.
- A similar pattern was seen in OPCM, but was less dramatic.
- Patients were still much less likely to fill if Rx was not filled within 10 days of writing.

Conclusions

- Across classes, 23-30% of patients did not fill even their first prescription for either OAC or OPCM.
- Other estimates of adherence typically begin from the first filled prescription, therefore estimates of adherence rates (typically 50-80%) may be underestimating true adherence by a significant fraction.
- The best rates of adherence were typically among patients with commerical insurance, suggesting financial barriers may be an important factor influencing nonadherence.
- Delays in filling more than 1-2 days made patients much less likely to ever fill their prescription. Ensuring that patients leave with medication in hand is likely to improve adherence.

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