



# Patient Adherence to Antiretroviral Medications among Patients Using HIV-Specialized Pharmacy and Traditional Pharmacy Settings

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Patients who receive ARV medication and services from HIV-specialized pharmacies have higher medication adherence rates.

## BACKGROUND

- HIV specialized pharmacies have staff with advanced disease state education, as well as high levels of cultural competency and HIV stigma awareness. This training is coupled with face to face proactive patient service programs designed to promote adherence to all medications for HIV treatment and comorbid conditions and retention in care have been shown to improve outcomes for those living with HIV.

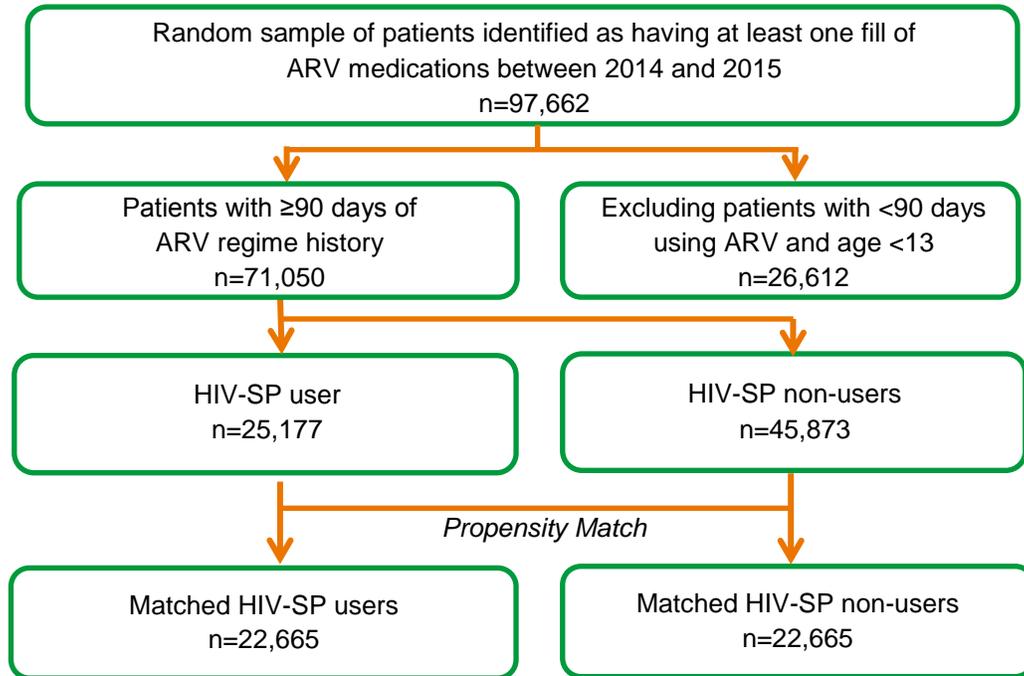
## OBJECTIVE

- Objective was to determine whether patients with HIV who receive service of antiretroviral (ARV) medications from HIV-specialized pharmacies have higher medication adherence rates.

## METHODS

- This retrospective propensity score (PS) matched cohort study compared medication adherence for patients who received ARV from HIV-Specialized service setting to a matched cohort of patients who used non-HIV Specialized traditional pharmacies between years 2013 and 2015.
- Patients were identified as ARV users if they had at least one fill of ARV between January 01, 2014 to December 31, 2014.
- Each ARV user was followed for 12 months following their first fill dates (index fill date). Medication adherence based on prescription fill claims was measured using the proportion of days covered (PDC) metric.
- Baseline covariates variables were calculated for the 12-month period before the index date.
- Patients were matched on propensity scores generated from fitting logistic regression using age, gender, initial dispensing year, and 90 binomial indicator variables of corresponding therapeutic classes. One-to-one matching resulted in 22,665 matched pairs.

**Figure 1. Patient Cohort Selection**



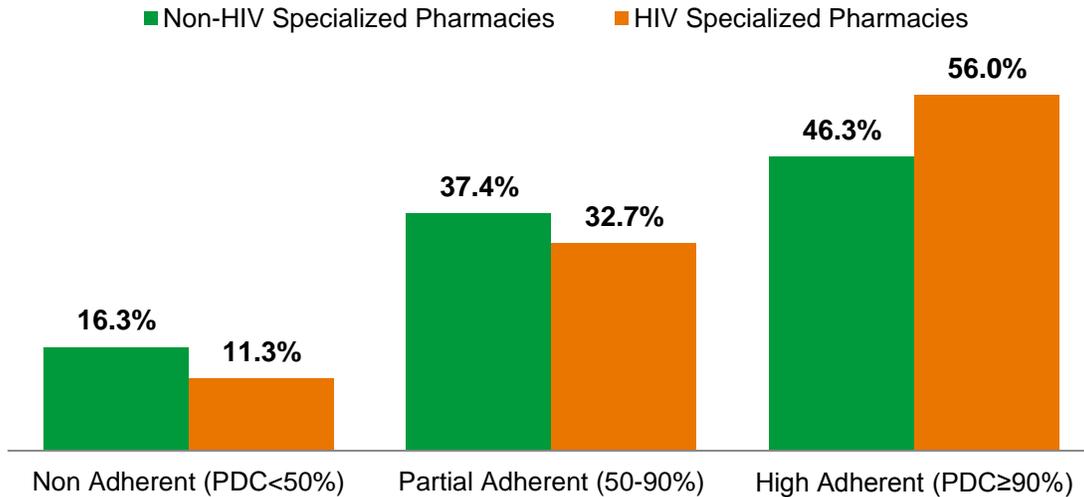
**Table 1. Covariates and Outcomes: Prior and Post Propensity Score Matching**

	Prior Match			Post Match			
	HIV-SP (A)	Non HIV-SP (B)	Difference	HIV-SP (A)	Non HIV-SP (B)	Difference	
	n=25,177	n=45,873	(A-B)	n=22,665	n=22,665	(A-B)	PCT
<b>Selected Baseline Covariates</b>							
<b>Age</b>	46.41 (11.98)	46.32 (12.21)	.089	45.84 (12.02)	45.82 (12.11)	.018	.04%
<b>Gender</b>	.82 (.38)	.74 (.44)	.087	.81 (.39)	.81 (.39)	.001	-.12%
<b>Baseline Fill Count</b>	40.57 (48.52)	31.22 (34.35)	9.351	33.14 (39.23)	32.90 (38.39)	.238	.72%
<b>Adherence Outcomes</b>							
<b>PDC</b>	.83 (.21)	.75 (.25)	.081	.83 (.22)	.78 (.24)	.049	6.2%
<b>Patients with PDC≥0.9 (ratio)</b>	.58 (.49)	.42 (.49)	.156	.56 (.50)	.46 (.50)	.097	20.8%

## RESULTS

- Among the patients who received ARV medications and whose prescriptions were serviced by HIV-specialized pharmacies, mean medication adherence was 6.2% higher, and the number of patients reached required adherence level (PDC≥0.9) was 20.8% higher than those comparable patients who used traditional pharmacy services.
- As shown in figure 2, the nonadherent rate for patients who used HIV-Specialized pharmacies was 11.3%, which was 35% lower than for those who used Non-HIV Specialized pharmacies.

**Figure 2. Propensity Matched Distribution**



## LIMITATIONS

- The study population encompassed patients in one retail chain; these results may not be generalizable to other settings. While HIV specialized and comparison groups were propensity matched, it is possible that these populations differed in ways that were not matched for.

## CONCLUSIONS

- The results show that patients who receive ARV medication and services from HIV-specialized pharmacies have higher medication adherence rates.
- The results suggest that pharmacists with HIV specific training and services are uniquely valuable for patients with disease conditions such as HIV that require highly specialized services.

### AMA Citation:

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