Comparing Adherence to Medications Used in Treating Comorbid Conditions among Older HIV Patients using Walgreens HIV-Specialized Pharmacies and Traditional Pharmacies

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Adherence to CVD medications is higher for HIV-positive patients aged 50 and over who use HIV-Specialized Pharmacies than for those who use traditional pharmacies.

OBJECTIVE

• To compare adherence to drugs used to treat comorbid conditions for older HIV patients obtaining their prescriptions at HIV-specialized pharmacies (HIV-SPs) with those using traditional pharmacies (TPs).

BACKGROUND

- CDC estimated that more than 1.1 million people in the United States are HIV-positive.¹
- Because of advances in antiretroviral therapy (ART), about half will be over the age of 50 by 2015.²
- Older HIV patients are more likely to die of age-related illnesses such as cardiovascular disease (CVD) rather than HIV. Both hypertension and hyperlipidemia contribute significantly to the pathogenesis of CVD, so adherence to related therapies is essential.³

WALGREENS HIV SPECIALIZED PHARMACIES

- HIV-SPs offer a variety of services to help patients overcome barriers to medication adherence.
- Personalized services offered by clinically trained pharmacists at HIV-SPs include: proactive medication
 management, synchronization of medication refills, confidential one-on-one patient consultation and education,
 identification of drug interactions, minimization of medication side effects, access to copay assistance, and free
 prescription delivery in selected areas.

METHODS

- Study design: Retrospective cohort study of a sub-population from a previous ART adherence study.
- Study period: May 1, 2011 April 30, 2012.
- Study sample: Subgroup analysis of patients aged ≥ 50 years (see Figure 1).
- Outcome variable: Adherence to ACE/ARBs and statins using Proportion of Days Covered (PDC).⁴
- <u>Predictor variable</u>: Walgreens Pharmacy type (HIV-SPs vs. TPs)

 Statistical methods: Propensity score matching, Student's paired t-test, McNemar test, and Z-test. (A p-value of <0.05 was deemed significant.) All statistical analyses were conducted using SAS version 9.2 (SAS Institute Inc., Cary, NC).

Medication fills and stayed with one type of pharmacy at included pharmacies between 05/01/11-04/30/12 HIV patients with ≥2 prescription fills HIV patients with ≥2 prescription for either an ACE/ARB fills for Statins n= 3.660 n= 3,365 **Case patients** Control patients Case patients **Control patients** n= 1,576 n= 2,004 n = 1,789n= 1,576 Propensity Matching (1:1) Propensity Matching (1:1) Case patients **Control patients** Case patients **Control patients** n= 1,484 n= 1,484 n= 1,372 n= 1,372 Case patients ≥50 Case patients ≥50 Control patients ≥50 Control patients ≥50 years of age years of age years of age years of age n= 899 n= 927 n= 870 n= 863

Figure 1. Patient Selection Flow Chart

RESULTS

- For patients at least 50 years old, a greater percentage of patients using HIV-SPs were significantly more likely to obtain a PDC of 80% or higher compared to those using TPs (see Figure 2).
- For patients at least 50 years old, mean PDC to ACE/ARBs and statins by HIV-SP users was significantly higher than for TP users. (See Figure 3).

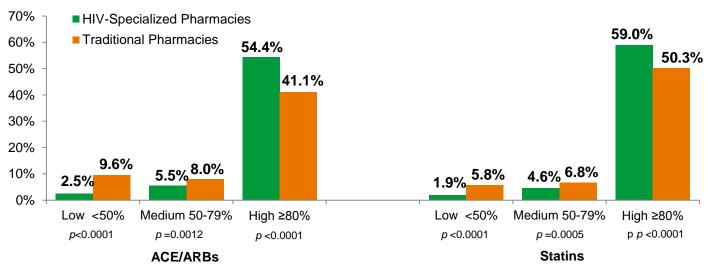
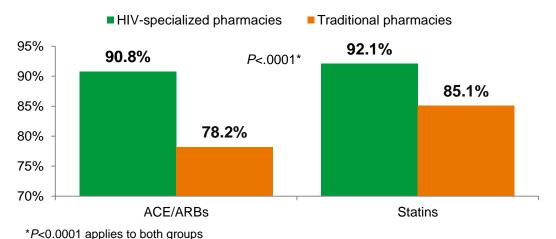


Figure 2. Patient Adherence Level for ACE/ARBs or Statins

Figure 3. Mean PDC for ART Patients using ACE/ARBs or Statins by Pharmacy Type



LIMITATIONS

- This study was limited to one pharmacy chain. Adherence could be underestimated if patients used other pharmacies.
- Some factors which might impact medication adherence (e.g. socioeconomic status, educational level) were not included in the propensity score matching.

CONCLUSIONS

- Our previous study⁵ showed that adherence to ART medications is higher among HIV-SPs users compared to TPs users.
- This sub-analysis demonstrated that adherence to CVD medications is also higher for HIV-positive patients aged 50 and over who use HIV-SPs than for those who use TPs.

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