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.⁵
• **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
• **Predictor variable:** 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).

**Figure 1. Patient Selection Flow Chart**

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 for either an ACE/ARB
  - Case patients: n=1,576
  - Control patients: n=2,004
- HIV patients with ≥2 prescription fills for Statins
  - Case patients: n=1,789
  - Control patients: n=1,576

- Propensity Matching (1:1)
  - Case patients ≥50 years of age: n=927
  - Control patients ≥50 years of age: n=870

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

HIV-specialized pharmacies
Traditional pharmacies

90.8%  P<.0001*
78.2%

92.1%
85.1%

70%
75%
80%
85%
90%
95%

ACE/ARBs
Statins

*P<0.0001 applies to both groups

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.

References:

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