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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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 recommended therapies is essential.3

Methods
- Study design: Retrospective cohort study of a sub-population from a previous ART adherence study4
- 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)5
- 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)

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.

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).

Results (continued)
- 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).

Methods (continued)

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

<table>
<thead>
<tr>
<th>Pharmacy Type</th>
<th>Mean PDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE/ARBs</td>
<td>90.8%</td>
</tr>
<tr>
<td>Statins</td>
<td>92.1%</td>
</tr>
</tbody>
</table>

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.