Persistence on Guideline-Recommended HIV Treatment: Comparison Among US Medicaid Beneficiaries Newly Initiating Treatment with Single- versus Multiple-Tablet Regimens

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Introduction

- There is a paucity of persistence data on US Medicaid beneficiaries prescribed Department of Health & Human Services (DHHS) guideline-recommended antiretroviral treatment (ART) regimens.1

Objective

- The purpose of this study is to compare the persistence of newer DHHS guideline-recommended single- and multiple-tablet regimens (STRs and MTRs) for treatment-naive patients.

Methods

- A retrospective analysis was conducted using the A-Payer Claims Database (APCD) for persons living with HIV initiating ART between Jan 1st, 2017, and Mar 31st, 2020, with ≥12 months continuous continuous prior and post to the index date.
- For STRs, the index date was defined as the date of the first ART claim.
- For MTRs, the index date was the fill date for the last medication in the regimen (≥250 day-window between fills for component comprising the regimen is allowed).
- Persistence was measured from the index date until treatment discontinuation (250 day-gap between fills of index regimen) or the end of the study period, whichever occurred first.
- For MTRs, patients must remain on all therapies that comprise the initial regimen to be counted as persistent.

Results

Results, cont’d

- We identified 44,764 (STRs=34,877; MTRs=9,887) Medicaid beneficiaries who newly initiated ART (Figure 1, Table 1). Patient characteristics between groups were mostly similar as seen in Table 2.
- At 6 months, 62% of patients on STRs were persistent, compared to 41% for MTRs (Table 3).
- Among all patients regardless of DHHS recommendation status, persistence was highest with BF/TAF 68% at 6 months and 44% at 12 months

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Table 1. Patient Distribution STRs & MTRs

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>STR (N=34,787)</th>
<th>MTR (N=9,977)</th>
<th>p (\text{value} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>50±10</td>
<td>51±10</td>
<td>0.12</td>
</tr>
<tr>
<td>Gender</td>
<td>Male: 17,031</td>
<td>Male: 3,682</td>
<td>0.001</td>
</tr>
<tr>
<td>US Geographic Region</td>
<td>North 13,060</td>
<td>South 13,060</td>
<td>0.48</td>
</tr>
<tr>
<td>Number of unique medications on index date (n, %)</td>
<td>22.5%</td>
<td>20.0%</td>
<td>0.01</td>
</tr>
<tr>
<td>Number of medications on index date (n, %)</td>
<td>4.50%</td>
<td>4.00%</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Table 2. Baseline Demographics and Clinical Characteristics

- Among adult US Medicaid beneficiaries living with HIV, STRs were associated with longer persistence on a first-line therapy compared to MTRs (p<0.001).
- Among adult US Medicaid beneficiaries living with HIV, BF/TAF had the highest persistence rate compared to DTG/ABC/3TC, FTC/TDF/DG, and FTC/TAF/DTG (Figure 3).

Conclusions

- Among adult US Medicaid beneficiaries living with HIV, STRs were associated with longer persistence on a first-line therapy compared to MTRs (p<0.001).
- Among adult US Medicaid beneficiaries living with HIV, BF/TAF had the highest persistence rate compared to DTG/ABC/3TC, FTC/TDF/DG, and FTC/TAF/DTG (Figure 3).
- After controlling for baseline characteristics, Figure 4 shows the adjusted results: MTRs were associated with a 1.71 greater risk of treatment discontinuation compared to STRs (p<0.001).
- When compared to BF/TAF, the risks of treatment discontinuation based on hazard ratios were: - 1.25 times higher for DTG/ABC/3TC (p<0.001) - 3.75 times higher for FTC/TDF/DTG (p<0.001).
- The geographic spread of Medicaid beneficiaries in the analysis is skewed towards the South.

Disclosures:

Ishveen Chopra, Qiao Mu, Vasantha Pedarla, are employees of StatInMed Research; Joshua Gruber, Woodie Zachry, Dylan Mezzio are employees of Gilead; Joshua Cohen is an employee of Tufts University.

References:


Table 3. Mean and Median Persistence by Treatment regimen

<table>
<thead>
<tr>
<th>Treatment regimen</th>
<th>N</th>
<th>Mean*</th>
<th>Median*</th>
<th>N</th>
<th>Mean*</th>
<th>Median*</th>
</tr>
</thead>
<tbody>
<tr>
<td>BF/TAF</td>
<td>3,682</td>
<td>238</td>
<td>282</td>
<td>3,682</td>
<td>238</td>
<td>282</td>
</tr>
<tr>
<td>EFV/FTC/TDF/DTG</td>
<td>2,112</td>
<td>204</td>
<td>230</td>
<td>2,112</td>
<td>204</td>
<td>230</td>
</tr>
<tr>
<td>EFV/3TC/TDF</td>
<td>1,868</td>
<td>197</td>
<td>216</td>
<td>1,868</td>
<td>197</td>
<td>216</td>
</tr>
<tr>
<td>FTC/TDF+ATV/c</td>
<td>873</td>
<td>207</td>
<td>272</td>
<td>873</td>
<td>207</td>
<td>272</td>
</tr>
<tr>
<td>FTC/TDF+DRV/c</td>
<td>1,697</td>
<td>95</td>
<td>120</td>
<td>1,697</td>
<td>95</td>
<td>120</td>
</tr>
</tbody>
</table>

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