REAL-WORLD PERSISTENCE WITH DOLUTEGRAVIR/LAMIVUDINE VERSUS BICTEGRAVIR/EMTRICITABINA/TENOFOVIR ALAFENAMIDE AMONG HUMAN IMMUNODEFICIENCY VIRUS PATIENTS.

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Background and Importance

Persistence can provide information on the comparative effectiveness, durability and tolerability in real-world patient populations.

Little is known about comparative persistence of dolutegravir/lamivudine (DTG/3TC) and bictegravir/emtricitabine/tenofovir-alafenamide (BIC/FTC/TAF).

Aim and Objectives

To compare persistence between two preferred antiretroviral therapies and analyze reasons for discontinuation.

Materials and Methods

Retrospective Non-interventional Longitudinal
All HIV patients over 18 years treated with DTG/3TC or BIC/FTC/TAF
Start of treatment – end observation period (March 2022)

Persistence was also calculated as a dichotomous variable at the conclusion of the first year of therapy. Permissible gap was 90 days.

Covariates collected from medical record were:
- Age, gender
- Viral load (VL), CD4 count
- Number of previous antiretroviral medications
- Charlson comorbidity index
- Medication Possession Ratio (MPR)

Persistence after first year was compared using the $\chi^2$ test.
Kaplan-Meier survival analysis was performed and differences were evaluated using the log-rank test.
Adjusted risk of discontinuation was assessed with Cox Proportional Hazard models.
Significance level was 0.05.

Results

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- 79.2% were male
- 5.2% were naive
- Age (mean±SD) was 47±12 years
- 91.2% had VL<200 copies
- 10.1% CD4<200/ml
- Number of previous treatments was 3.5±2.6.
- MPR was 95.4±11.1.
- Charlson comorbidity index was 1±1.66.
- 49.2% were treated with BIC/FTC/TAF

Persistent after the first year
DTG/3TC $\rightarrow$ 97.8%
BIC/FTC/TAF $\rightarrow$ 89.7%

[OR= 5.1 (CI95% 1.7-15.6) p=0.002]

Persistence with DGT/3TC was 1.231 days
Persistence with BIC/FTC/TAF was 980 days
p=0.001

Cox-model adjusted HR was 2.5 (IC95% 0.5-12; p=0.26).

The main reasons for discontinuation

<table>
<thead>
<tr>
<th>BIC/FTC/TAF</th>
<th>DTG/3TC</th>
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</thead>
<tbody>
<tr>
<td>n = 9</td>
<td>tolerability/toxicity</td>
</tr>
<tr>
<td>n = 3</td>
<td>death</td>
</tr>
</tbody>
</table>

Conclusion and Relevance

More patients on DTG/3TC were persistent after the first year compared to BIC/FTC/TAF (however, there were no differences in overall persistence in covariate-adjusted analysis)
Main reason for BIC/FTC/TAF discontinuation was tolerability/toxicity

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