Use of TAF with a HIV-RNA ≤50 copies/mL in clinical practice

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Introduction/Summary

Randomised studies have shown that switching to a TAF-based regimen is generally safe and continues to take TDF-containing regimens, particularly for bone and kidney health.

How these trials results might have impacted on daily prescriptions in clinical practice is unknown and there is little data describing the population who have been switched to TAF-based regimens.

Aims

To describe the population of HIV-infected individuals enrolled in the Icona Foundation Study cohort who underwent a switch to a TAF-based regimen with a HIV-RNA ≤50 copies/mL. Participants have been grouped in people who switched from TDF-based regimens and those switching from other regimen types.

Aim

To compare characteristics of people who were previously receiving a TDF-based or TDF-free regimens to TAF-based regimens.

Study Design and Methods

We included all participants in the Icona Foundation Study cohort who underwent for the first time a switch to a TAF-based regimen with a HIV-RNA ≤50 copies/mL. Participants were grouped in people who switched from TDF-based regimens and those switching from other regimen types.

The binary outcome ‘switching to TDF from TAF: yes/no’ has been modelled using a logistic regression model to aim to compare characteristics of people who replaced TDF with TAF with those of people switching from non-TDF based regimens.

Besides those shown in the Figure, other factors included in the analysis (fitted as time fixed at the time of switch) were gender, nationality, AIDS diagnosis, HCV co-infection status, age, CD4 and CD8 count, diabetes diagnosis, use of statin drugs, blood glucose and geographical location of participating clinical site, which all failed to show an association in univariable analysis.

Results

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In the newly started TAF-based regimen, the most frequently used anchor drugs were EVG (46% from TDF, 63% from other), RPV (25% and 16%) and DTG (8% and 12%).

In the non-TDF switch group, breakdown of previous drug use was 35% ABC, 47% 3TC, 45% NSt=RTV, 16% D4T, 12% 3TC/ddi, 8% EMTR and 12% ABC/ddi.

Figure. Odds ratios of switching from TDF-based regimens vs. switching from other regimen types

Conclusions

The large majority of observed switches to TAF were from TDF-based regimens.

At time of switch and conditioning on having switched to TDF, eGFR did not seem different between the groups, while previous exposure to TDF was associated with lower risk of markers for CVD disease.

A follow-up analysis comparing the trend in eGFR and lipids before and after TAF initiation is warranted.

Future work will also involve the identification of factors that might have led to switch to a TAF-based regimen when HIV-RNA was controlled ≤50 copies/mL.