HIV Virologic Outcomes During Tenofovir Alafenamide and Rifabutin Coadministration

0735

Shannon M Balcombe[1], Thomas CS Martin[1], Michael E Tang[1], Lucas Hill[1]
[1]UC San Diego Health, San Diego, CA, USA

BACKGROUND

Tenofovir alafenamide (TAF) absorption may be decreased during rifabutin (RFB) therapy due to induction of P-glycoprotein, although studies with rifampin suggest intracellular concentrations of tenofovir may still be adequate. Based on expert opinion, some centers have administered TAF containing HIV regimens with RFB; however, clinical outcomes have not been assessed.

Study purpose: Determine the proportion of people living with HIV (PLWH) who achieve or maintain virologic suppression during concomitant use of TAF and RFB while on treatment for mycobacterial infections.

METHODS

- Retrospective observational study of all individuals at UC San Diego, USA who received a TAF containing HIV regimen coadministered with RFB for ≥1 month
- Study period: April 2016 - July 2019
- Outcomes were assessed on an intention-to-treat basis
- **Primary outcomes**:
  - Achievement of viral suppression for participants not already suppressed on ART prior to TAF/RFB coadministration OR
  - Maintenance of viral suppression for participants already suppressed on ART prior to TAF/RFB coadministration
  - Viral suppression defined as HIV VL<200 copies/mL

In a small population of PLWH requiring treatment of mycobacterial infections, the use of TAF based ART regimens coadministered with rifabutin resulted in high rates of virologic suppression.

RESULTS

- A total of 22 participants were included in the analysis with a mean overlap of TAF and RFB of 34.2 weeks.
- All participants received TAF 25mg daily

Mycobacterial type

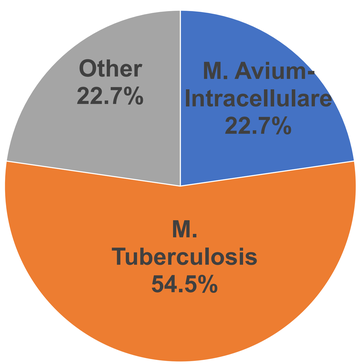
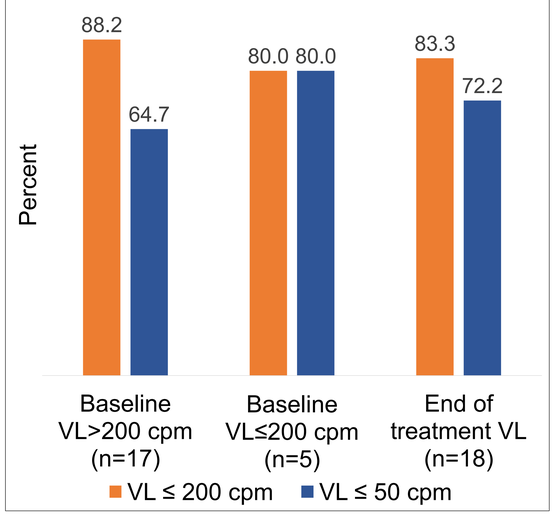


Table 1 – Baseline Characteristics

Total Number of participants	22
Median Age (IQR)	37 (30-49)
Female, n (%)	6 (27.3%)
White, n (%)	8 (36.4)
Hispanic, n (%)	12 (54.5)
Median baseline CD4 count, cells/μL (IQR)	36 (22-112)
On ART at baseline, n (%)	9 (40.9)
Viral load <200 copies/mL at baseline (%)	5 (22.7)
Resistance to at least 1 ARV class, n (%)	9 (40.9)
Additional ARVs Integrase inhibitor Protease inhibitor Integrase + Protease inhibitor	 18 (81.8) 2 (9.1) 2 (9.1)
Rifabutin dose, n (%) 150mg* 300mg ** Dose adjusted for drug interaction w/ protease inhibitor*	 4 (18.2) 18 (81.8)

Proportion of subjects achieving viral suppression during TAF/RFB coadministration



RESULTS cont.

- 2 of 17 participants with baseline VL >200 copies/mL did not achieve viral suppression:
  - 1 participant self-discontinued ART during treatment
  - 1 participant was lost to follow up
    - Baseline VL 252,000 copies/mL, repeat VL 1,230 copies/mL, then lost to follow up (7 weeks of TAF/RFB overlap)
- 1 of 6 participants with baseline viral load ≤200 copies/ml had viral rebound (>200 copies/ml):
  - The participant self-discontinued ART during treatment
- Mean time to viral suppression was 53 days
- Mean increase in CD4 count from baseline to end of treatment was 94 cells/μL

CONCLUSIONS

Despite a predicted decrease in TAF absorption when coadministered with RFB, the majority of individuals achieved or maintained HIV suppression using TAF based ART in combination with RFB. **Among participants with follow up data and who reported taking their antiretroviral therapy as prescribed, there were no virologic failures.**

Two participants self-discontinued ART during treatment, including one that had been <200 copies/mL prior to starting mycobacterium infection treatment highlighting the real world challenge of adherence and pill burden in this population.

These data support the further study of TAF and RFB coadministration in HIV and mycobacterial infection. In select cases where alternate combination therapies are deemed suboptimal, a TAF containing regimen could be considered while on RFB though the authors recommend close follow up for viral suppression.

ADDITIONAL KEY INFORMATION

Author Contact Information: sbalcombe@health.ucsd.edu