



The impact of changing tenofovir and lamivudine to co-formulated tenofovir and emtricitabine (Truvada®) in adults with virologic suppression

Abstract # 950191 • Eighth International Congress on Drug Therapy in HIV Infection • Glasgow, UK • 12–16 November 2006

AE Colson¹, CJ Cohen¹, R Stevens², K McLaughlin¹, A Habel¹, C Martorell³, S Stinson¹

¹Community Research Initiative of New England, Boston, MA, USA; ²Gilead Sciences, Foster City, CA, USA;

³Community Research Initiative of New England, Springfield, MA, USA

BACKGROUND

- The Gilead 934 study compared tenofovir DF (TDF) and emtricitabine (FTC) to co-formulated zidovudine (AZT)/lamivudine (3TC), both in combination with efavirenz. At 48-weeks, the TDF and FTC arm was associated with superior efficacy by intent-to-treat analysis (Gallant JE, et al. *NEJM* 2006;354:251–60)
- The convenience and tolerability of antiretroviral regimens may be improved by co-formulated medications which reduce pill burden
- Truvada® is a once daily fixed dose combination tablet of TDF 300 mg and FTC 200 mg; it was licensed in the US in August, 2004 for the treatment of HIV infection.
- We evaluated the antiretroviral activity, safety, and patient acceptance of co-formulated TDF/FTC in individuals with consistent virologic suppression on TDF and 3TC

METHODS

- Design:** 24 week, prospective, open label, single arm study
Subjects: 20 adults with HIV-1 infection and an undetectable viral load (< 75 copies/ml) on a stable antiretroviral regimen including TDF and 3TC for at least 90-days.
Intervention: At enrollment, subjects stopped TDF and 3TC and started co-formulated TDF/FTC; the remaining drugs in the regimen were not changed
Measurements:
 • HIV RNA
 • CD4 count
 • Antiretroviral adherence, by self-report
 • Subject acceptance of TDF/FTC, by questionnaire
 • Creatinine and estimated creatinine clearance by Cockcroft–Gault equation
Analyses:
 • Proportions of subjects with sustained virologic suppression at weeks 4, 12, and 24 were calculated with exact 95% confidence intervals
 • The paired T-test was used to test for significant change in means between baseline and week 24.

RESULTS

Baseline Characteristics

Characteristic	Value
Female (%)	3 (15)
Race (%)	
–Caucasian	17 (85)
–African American	3 (15)
Mean age in years (range)	46 (23–63)
Mean CD4 cell count per mm ³ (range)	563 (193–1145)
Mean creatinine mg/dl (range)	1.0 (0.6–1.4)
Mean estimated creatinine clearance ml/min (range)	102 (61–207)
Number with HIV RNA < 75 (%)	19 (95) ^a
Number with AIDS diagnosis (%)	15 (75)
Number on regimen anchor (%)	
–NNRTI	10 (50)
–PI (one not boosted)	9 (45)
–PI and NNRTI	1 (5)

a: One subject had a screening viral load < 75 but a baseline viral load of 78

RESULTS (continued)

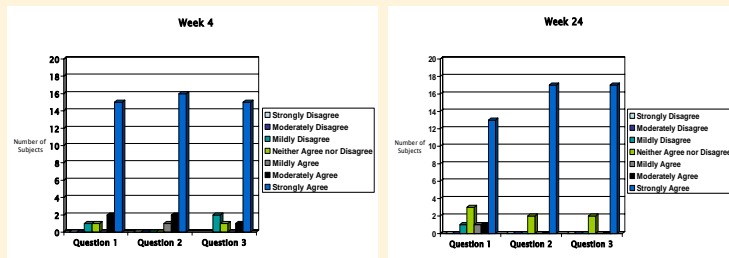
Virologic, Immunologic, and Safety

Week	Proportion on TDF/FTC with VL<75 As Treated Analysis (95% CI)	Mean CD4	Mean Creatinine	Mean Creatinine Clearance
0 (n=20)	-----	563	1.01	97
4 (n=20)	19/19 ^a =100% (85–100)	555	1.00	100
24 (n=19) ^c	18/18 ^{b,c} =100% (85–100)	553 ^d	1.07 ^d	90 ^e

- a: one subject missed only her week 4 visit
 b: one subject changed TDF/FTC back to TDF and 3TC at week 18 due to rash; his HIV RNA remained undetectable at the time of the change
 c: one subject moved out of the area at week 20. His HIV RNA remained undetectable (<75) at his early termination visit at week 20.
 d: Change from baseline not statistically significant
 e: Change from baseline in mean creatinine clearance statistically significant (p=0.03) but no subjects had week 24 creatinine measurements > ULN

Subject Preference

- Question 1:** It is important to me to minimize the number of pills I take
Question 2: Taking the single Truvada tablet is more convenient than taking separate Efavir and Viread pills
Question 3: I prefer taking the single Truvada tablet compared to taking separate Efavir and Viread pills



Self-Reported Adherence

- The percent adherence was calculated as (# of doses taken in past 7 days / # of doses prescribed for past 7 days) x 100
- The mean percent adherence at 4 weeks = 100
- The mean percent adherence at 24 weeks = 99

CONCLUSIONS

- Virologic suppression is maintained in subjects on PI-based and NNRTI-based antiretroviral regimens who change TDF and 3TC to co-formulated TDF/FTC
- Four weeks after changing TDF and 3TC to co-formulated TDF/FTC 100% agreed (84% strongly, 11% moderately, 5% mildly) that “taking the single Truvada tablet is more convenient than taking separate Efavir and Viread pills” and 84% preferred taking the single Truvada tablet.
- During this study, there was no graded change in mean serum creatinine. The observed statistically significant decline in estimated creatinine clearance is of uncertain clinical significance.

Author Contact Information:

Amy E. Colson: acolson@crine.org; Cal J. Cohen: ccohen@crine.org
 CRI Website: www.crine.org

Acknowledgements:

Funding: Gilead Sciences, Foster City, CA
 Statistical support: Jane Leslie Garb, MPH, Baystate Medical Center, MA