Tenofovir DF (TDF) in Combination with Lamivudine (3TC) and Efavirenz (EFV) in Antiretroviral-Naïve HIV-Infected Patients: a 4-Year Follow-Up

I Cassetti1, JVR Madruga1, JMAH Suleiman3, L Zhong4, J Enjeosa4, and A Cheng5 for the 903E Study Team

1Fundacion Centro Estudios Infectologicos, Buenos Aires, Argentina; 2Centro de Referencia e Treinamento DST/AIDS, Sao Paulo, Brazil; 3Instituto de Infectologia Emilio Ribas, Sao Paulo, Brazil; 4Gilead Sciences, Foster City, California, USA

**Results**

**Background**

- **Study 903 is a Phase III trial** with an ongoing 96-week open-label extension phase and a completed 144-week randomized, double-blind phase designed to evaluate TDF compared to stavudine (d4T) in combination with 3TC and EFV in antiretroviral-naïve patients
- While both arms provided durable viral suppression through 144 weeks, patients on TDF arm experienced significantly lower elevations in lipid parameters and higher limb fat compared to d4T
- Both TDF and d4T arms experienced decreases in bone mineral density (BMD) over 144 weeks, which were similar at the hip but greater at the spine for the TDF arm

**Methods**

- **Study 903 Main inclusion/exclusion criteria:**
  - HIV-infected patients naïve to antiretroviral treatment, 18-65 years of age, with plasma HIV RNA > 5,000 copies/mL
  - No significant laboratory or clinical abnormalities
  - Patients in select sites (Argentina, Brazil, and Dominican Republic) rolled-over into a 96-week open-label extension phase (903E)
  - Data obtained from patients originally randomized to TDF and participating in 903E were analyzed

**Results (cont’d)**

**Conclusions**

- Once daily TDF+3TC+EFV demonstrated sustained antiretroviral activity and was well tolerated through 4 years of therapy in antiretroviral-naïve patients
- Limb fat measurement remained stable from Week 96 to Week 192
- Decreases from baseline in hip and spine BMD occurred in the first 48 weeks and were non-progressive through Week 192

**References**


### Table 1. Demographic and HIV Characteristics

<table>
<thead>
<tr>
<th>Arm</th>
<th>TDF+3TC+EFV (n = 86)</th>
<th>Mean ± SD Age (yrs) (Range)</th>
<th>Male</th>
<th>White</th>
<th>Other</th>
<th>Mean ± SD HIV-RNA in log10 copies/mL (Range)</th>
<th>Mean ± SD CD4 count in cells/mm³ (Range)</th>
<th>Mean % Change in current HAART (n = 156 to 213)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>33 ± 7 (19 to 51)</td>
<td>62%</td>
<td>76%</td>
<td>18%</td>
<td>4.86 ± 0.8 (3.12 to 6.45)</td>
<td>520 ± 168 (56 to 838)</td>
<td>-1.6%</td>
</tr>
</tbody>
</table>

**Figure 1. Study Design**

**Figure 2. % Patients with HIV-1 RNA < 400 c/mL Through Week 192**

**Patient Disposition Through Week 192**

- 86 patients enrolled in Study 903 open-label extension phase and continued treatment with TDF
- 3 patients discontinued from the study prior to Week 192
  - 1 patient discontinued due to adverse event (Grade 3 amylase/Grade 4 lipase)
  - 1 patient discontinued due to pregnancy
  - 1 patient withdrew consent
- No patient reported Fanciuri syndrome
- No patient discontinued due to renal abnormalities

**Figure 3. % Patients with HIV-1 RNA < 50 c/mL Through 192**

**Figure 4. Mean Change from Baseline in CD4 Through Week 192**

**Figure 5. Mean Total Limb Fat at Week 192**

**Figure 6. Mean % Change in Spine BMD Through Week 192**

**Figure 7. Mean % Change in Hip BMD Through Week 192**