Switch from DTG-ABC-3TC to BIC-TAF-FTC in Adults with Virologic Suppression

GS-380-1844
Switch from DTG-ABC-3TC to BIC-TAF-FTC
GS-380-1844: Design

GS-380-1844: Study Design

• **Background:** Randomized, phase 3, multicenter, double-blind, active-controlled study evaluating the efficacy and safety of switching adults with HIV and viral suppression to BIC-TAF-FTC versus continuing DTG-ABC-3TC

• **Inclusion Criteria**
  - Age ≥18
  - HIV RNA <50 copies/mL
  - eGFR ≥50 mL/min for at least 3 months
  - No history of treatment failure
  - Taking DTG-ABC-3TC or DTG + ABC-3TC
  - No documented or suspected resistance to DTG, ABC, 3TC, FTC, or TAF
  - HCV infection allowed
  - HBV infection not allowed

**Switch Regimen**
Bictegravir-TAF-FTC  
(n = 282)

**Maintain Regimen**
DTG-ABC-3TC  
(n = 281)

Switch from DTG-ABC-3TC to BIC-TAF-FTC GS-380-1844: Results

Week 48 Virologic Response (Intention-to-Treat Analysis)

At 48 weeks, proportion with HIV RNA >50 copies/mL not statistically different: 1% BIC vs <1% DTG
5 participants met criteria for virologic failure and resistance testing (3 BIC, 2 DTG); no resistance found

Switch from DTG-ABC-3TC to BIC-TAF-FTC
GS-380-1844: Results

Most Common Treatment-Related Adverse Events by 48 Weeks

<table>
<thead>
<tr>
<th>Most Common Treatment-Related Adverse Events (AE’s)</th>
<th>BIC-TAF-FTC (n = 282)</th>
<th>DTG-ABC-3TC (n = 281)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE’s leading to study drug discontinuation</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Headache, %</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Diarrhea, %</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Abnormal dreams, %</td>
<td>&lt;1</td>
<td>2</td>
</tr>
<tr>
<td>Fatigue, %</td>
<td>&lt;1</td>
<td>1</td>
</tr>
<tr>
<td>Nausea, %</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Insomnia, %</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Switch from DTG-ABC-3TC to BIC-TAF-FTC
GS-380-1844: Conclusions

**Interpretation:** “The fixed-dose combination of bictegravir, emtricitabine, and tenofovir alafenamide might provide a safe and efficacious option for ongoing treatment of HIV-1 infection.”

BIC-TAF-FTC Switch Studies (1844 and 1878)
Impact of Archived M184V Mutation
Switching to Bictegravir-TAF-FTC with Archived M184V Studies 1844 and 1878: Design

1844 & 1878: Analysis of Switch Studies

- **Background**: Preexisting resistance data were assessed from 2 phase 3 studies that analyzed switching antiretroviral regimens in adults with suppressed HIV RNA levels (for ≥6 months) to bictegravir-tenofovir alafenamide-emtricitabine (BIC-TAF-FTC) versus continuing regimen.

- **Analysis for Resistance Criteria**
  - Historical genotypes
  - Retrospective proviral archived DNA genotype
  - Resistance data obtained for 95% (543/570) of participants who switched to BIC-TAF-FTC

### Switch Regimen
- **Bictegravir-TAF-FTC**
  - (n=570)

### Maintain Regimen
- **1844**: Dolutegravir + ABC-3TC
  - (n=285)
- **1878**: Boosted PI* + 2NRTIs
  - (n=281)

*56% boosted Darunavir

### Percentage with HIV RNA <50 copies/mL by baseline resistance mutation

<table>
<thead>
<tr>
<th>Common NRTI Substitutions</th>
<th>BIC-FTC-TAF (n = 543)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M184V/I</td>
<td>96.3% (52/54)</td>
</tr>
<tr>
<td>K65R/N</td>
<td>100.0% (7/7)</td>
</tr>
<tr>
<td>Any TAM</td>
<td>95.8% (46/48)</td>
</tr>
<tr>
<td>1 or 2 TAM’s</td>
<td>94.3% (33/35)</td>
</tr>
<tr>
<td>3 or more TAM’s</td>
<td>100.0% (13/13)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary INSTI Substitutions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>T97A</td>
<td>100% (9/9)</td>
</tr>
<tr>
<td>E92G or Y143H or S147G or Q148H</td>
<td>100% (4/4)</td>
</tr>
</tbody>
</table>

Switching to Bictegravir-TAF-FTC with Archived M184V Studies 1844 and 1878: Key Points

- Baseline M184V/I in 10% of switch group (BIC-TAF-FTC)
- 96% (52/54) with archived M184V had HIV RNA <50 copies/mL for up to 48 weeks on BIC-TAF-FTC

**Interpretation:** “Pre-existing resistance substitutions, notably M184V/I, were unexpectedly common among suppressed participants who switched to BIC/FTC/TAF. High rates of virological suppression were maintained in the overall study population and in those with pre-existing resistance, including M184V/I, for up to 48 weeks of BIC/FTC/TAF treatment with no resistance development. These results indicate that BIC/FTC/TAF is an effective treatment option for suppressed patients, including those with evidence of archived NRTI resistance.”
Acknowledgment

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