A Phase 3, Randomized, Controlled Clinical Trial of Bictegravir in a Fixed-Dose Combination, B/F/TAF, vs DTG/ABC/3TC in Treatment-Naïve Adults at Week 96

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Introduction

Bictegravir, a novel, potent INSTI with a high barrier to resistance, was formulated with emtricitabine and tenofovir alafenamide into a single-tablet regimen (B/F/TAF) and is approved in the US, Europe, Australia, and Canada as Bikta® – Uncontrolled, once-daily dosing regardless of food

B/F/TAF was non-inferior at Week 48 to standard-of-care comparators, with no treatment-emergent resistance, and was welltolerated in five randomised phase 3 studies in adults, including a study of 470 women.6

The current trial compares B/F/TAF to coformulated dolutegravir, abacavir, and lamivudine (DTG/ABC/3TC) in treatment-naïve adults and is ongoing in a double-blind fashion to Week 96

– B/F/TAF is associated with significantly fewer “bothersome” symptoms, primarily GI and neuropsychiatric, than DTG/ABC/3TC by patient-reported outcomes (PRO)

– Similar bone and renal profiles were observed at Week 48

– We now report cumulative efficacy and safety results through Week 96

Results

Resistance Analysis Population

B/F/TAF

DTG/ABC/3TC

HIV-1 RNA <50 copies/mL
0
0
Emergent resistance
0
0

Virologic Relapse or at or after Week 8
– Continued virologic failure without reappearance

Two consecutive HIV-1 RNA tests ≥ 50 copies/mL after achieving < 50 copies/mL and HIV-1 RNA ≤ 200 copies/mL, at the confirmation test or

at < 50 copies/mL increase in HIV-1 RNA from nadir

– HIV-1 RNA > 200 copies/mL at Week 96 or last visit on study drug did not require confirmation

The second, confirmatory sample was sent for resistance analysis, unless there was no follow-up sample

Laboratory Abnormalities (22%) Through Week 96

Grade 3 or 4,

<table>
<thead>
<tr>
<th>Adverse Event</th>
<th>B/F/TAF</th>
<th>DTG/ABC/3TC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nausea</td>
<td>3 (1.6%)</td>
<td>3 (1.2%)</td>
</tr>
<tr>
<td>Headache</td>
<td>6 (3.2%)</td>
<td>1 (0.3%)</td>
</tr>
<tr>
<td>Fatigue</td>
<td>6 (3.2%)</td>
<td>5 (1.6%)</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>7 (3.5%)</td>
<td>5 (1.6%)</td>
</tr>
</tbody>
</table>

% Change from Baseline in Quantitative Proteinuria at W96

Change from Baseline in eGFRc through Week 96

Mean % Changes in Spine and Hip BMD Through W96

Fasting Lipid Changes at W96

Mean CD4 increase from baseline at Week 96:
– 7.9% B/F/TAF vs 8.9% DTG/ABC/3TC

Conclusions

• Initial HIV-1 therapy with B/F/TAF was non-inferior to DTG/ABC/3TC at Week 96 by Snapshot algorithm with high rates of virologic suppression (HIV-1 RNA < 50 copies/mL)

• 87.9% B/F/TAF vs 89.8% DTG/ABC/3TC

• No treatment-emergent resistance

• B/F/TAF was well tolerated, with no AEs leading to discontinuation (vs 5 in the DTG/ABC/3TC arm)

• Changes from baseline in bone mineral density and renal markers were comparable between treatment arms, with no cases of renal tubulopathy

• There were small differences in the change in median TC, LDL, and TC:HDL ratio, however, there was no difference in the proportion of participants initiating lipid-lowering agents between the two arms

• These results provide further evidence of longer-term safety, efficacy, and high barrier to resistance of B/F/TAF in people living with HIV-1

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References

5. Kiyu et al. CROI 2016; March 7-7, Boston. Abstract 136E.

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