# Evaluation of how well B/F/TAF works in people with an increase in HIV blood levels after having had a low HIV blood level (viral rebound)

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This is a plain language summary of a scientific presentation that was originally presented by Dr Anton Pozniak at EACS 2023 (Poster eP.A.086). This plain language summary only presents selected data and is not intended to replace the full poster. Please refer to the poster (available by QR code at the end of this document) for full details.

### **Background**

B/F/TAF is a single pill to treat HIV that combines three medicines: bictegravir (B), emtricitabine (F) and tenofovir alafenamide (TAF).

HIV medicine works by lowering the amount of virus in a person's blood to levels that cannot be detected in tests (that is "undetectable"). This is called 'viral suppression'.

For a number of reasons, levels of the virus may become detectable again in the blood. This is called 'viral rebound'.

Taking HIV medicine as prescribed (called treatment adherence) is important to help prevent viral rebound which, over time, can lead to HIV that is resistant to medicines. Counselling and supporting people with HIV who have difficulty taking their medication as prescribed is often very successful.

This summary looks at how well B/F/TAF works in people with HIV following viral rebound.

#### Why did researchers do this analysis?

• Researchers wanted to test how well B/F/TAF works in people with HIV and viral rebound when taken as recommended

#### Who was included in the analysis?

In this study, adults with HIV who took part in 1 of 9 different studies were included. All of the people that researchers looked at were taking B/F/TAF.

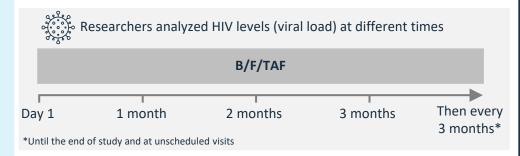




In 6 of the studies, people had used other treatments for HIV before taking B/F/TAF

In 3 of the studies, B/F/TAF was the first treatment for HIV that people had taken

#### How was the treatment studied?



#### Researchers looked at:



How many people had viral rebound while taking B/F/TAF and what happened when they took B/F/TAF after viral rebound



How long it took people to reach viral suppression after viral rebound, referred to as 'viral re-suppression'



Whether people were taking B/T/TAF as recommended (treatment adherence)\*



<u>Viral load:</u> The amount of HIV in a person's blood. It is measured as the number of copies of HIV per milliliter of blood.

<u>Viral suppression:</u> When the number of copies of virus is less than 50.

Viral re-suppression: When the number of copies of HIV in 1 milliliter of blood returns to less than 50 after viral rebound.

<sup>\*</sup>To measure treatment adherence, researchers asked people to hand in their pill bottles with any unused pills. If they had taken less than 85% of the pills that they were prescribed, they were considered to have low treatment adherence.



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#### What were the results of the analysis?

### How many people had viral rebound while taking B/F/TAF?

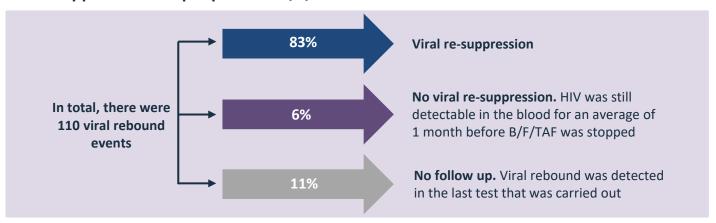


The researchers defined a viral rebound event as 1000 or more copies of the virus in 1 milliliter of blood, measured 1 or more times after viral suppression



of people had a viral rebound event (96 out of 3,772 people)

### What happened when people took B/F/TAF after viral rebound?



#### How long did it take for viral re-suppression to occur following viral rebound?

The majority of people reached viral re-suppression within 30 days after viral rebound

#### Was HIV resistance to B/F/TAF seen in people who did not achieve viral re-suppression?

- Sometimes the virus has genetic differences (known as mutations) that make it "resistant" to a medicine. These mutations might stop the drug from working properly
- No development of HIV resistance to B/F/TAF was observed in people who did not achieve viral re-suppression

#### How did taking B/F/TAF as recommended affect viral rebound?

· People who did not take their medicine as prescribed had a greater chance of having viral rebound



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#### **Poster Conclusions**

In people with HIV taking B/F/TAF after viral rebound, researchers saw that:

- Among people who had viral rebound, most had viral re-suppression when they took B/F/TAF
- On average it took 23 days to reach viral re-suppression when people took B/F/TAF after viral rebound
- In people who did not achieve viral re-suppression, no HIV resistance to B/F/TAF was observed

Reference: Pozniak A, et al. EACS 2023, Poster eP.A.086

