Clinical trial results:
Safety, tolerability, and efficacy of a dose reduction strategy based on bictegravir/emtricitabine/tenofovir alafenamide in virologically suppressed HIV-infected adults.

Summary

EudraCT number	2022-000358-26
Trial protocol	ES
Global end of trial date	05 June 2024

Results information

Result version number	v1 (current)
This version publication date	22 November 2026
First version publication date	22 November 2026
Summary attachment (see zip file)	paper_BETAF-RED_2022-000358-26 (Chivite BETAF-RED. 2026 EClinMed.pdf)

Trial information

Trial identification

Sponsor protocol code	BETAF-RED

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT05602506
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	FRCB-IDIBAPS
Sponsor organisation address	C/ Villarroel 170, Barcelona, Spain,
Public contact	Judit Pich, CTU(clinical Trial Unit), +34 9322754002815,
Scientific contact	Judit Pich, CTU(clinical Trial Unit), +34 9322754002815,

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	05 June 2024
Is this the analysis of the primary completion data?	Yes
Primary completion date	05 June 2024
Global end of trial reached?	Yes
Global end of trial date	05 June 2024
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

Viral efficacy (standard plasma viral load, lower limit of detection HIV RNA 50 copies/mL) of the reduction of BETAF regimen dose per week at 4 weeks.

Protection of trial subjects:

Subjects were protected through strict eligibility criteria, written informed consent prior to any study procedures, regular clinical and laboratory monitoring, pregnancy testing and contraception requirements for women of childbearing potential, continuous adverse event and serious adverse event monitoring, predefined stopping rules for study arms with unacceptable virological failure rates, review by an independent Data Safety Monitoring Board (DSMB), Ethics Committee approval, protection of confidentiality through subject coding, and the right to withdraw from the study at any time without prejudice.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	15 November 2022
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Spain: 40
Worldwide total number of subjects	40
EEA total number of subjects	40

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	40

From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details: -

Pre-assignment period milestones

Number of subjects started	40
Number of subjects completed	39

Pre-assignment subject non-completion reasons

Reason: Number of subjects	Consent withdrawn by subject: 1

Period 1

Period 1 title	Overall trial (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	OD arm

Arm description:

Participants randomly assigned to continue once-daily (OD) B/F/TAF treatment for 48 weeks.

Arm type	Active comparator
Investigational medicinal product name	Biktarvy 50 mg/200 mg/25 mg film-coated tablets
Investigational medicinal product code	J05AR20
Other name	Bictegravir
Pharmaceutical forms	Coated tablet
Routes of administration	Oral use

Dosage and administration details:

Dosage: 50 mg/200 mg/25 mg per day during 48 weeks
Each film-coated tablet contains bictegravir sodium equivalent to 50 mg of bictegravir, 200 mg of emtricitabine, and tenofovir alafenamide fumarate equivalent to 25 mg of tenofovir alafenamide.

Arm title	3W arm

Arm description:

Participants randomly assigned to receive three times per week (3W; Monday, Wednesday, Friday) B/F/TAF treatment for 48 weeks.

Arm type	Experimental
Investigational medicinal product name	Biktarvy 50 mg/200 mg/25 mg film-coated tablets
Investigational medicinal product code	J05AR20
Other name	Bictegravir
Pharmaceutical forms	Coated tablet
Routes of administration	Oral use

Dosage and administration details:

Dosage: 50 mg/200 mg/25 mg three times per week during 48 weeks
Each film-coated tablet contains bictegravir sodium equivalent to 50 mg of bictegravir, 200 mg of emtricitabine, and tenofovir alafenamide fumarate equivalent to 25 mg of tenofovir alafenamide.

Arm title	2W arm

Arm description:

Participants randomly assigned to continue two times per week (2W, Twesday, Friday) B/F/TAF treatment for 48 weeks.

Arm type	Experimental
Investigational medicinal product name	Biktarvy 50 mg/200 mg/25 mg film-coated tablets
Investigational medicinal product code	J05AR20
Other name	Bictegravir
Pharmaceutical forms	Coated tablet
Routes of administration	Oral use

Dosage and administration details:

Dosage: 50 mg/200 mg/25 mg twice weekly during 48 weeks
Each film-coated tablet contains bictegravir sodium equivalent to 50 mg of bictegravir, 200 mg of emtricitabine, and tenofovir alafenamide fumarate equivalent to 25 mg of tenofovir alafenamide.

Arm title	1W arm

Arm description:

Participants randomly assigned to continue one weekly (1W) B/F/TAF treatment for 48 weeks.

Arm type	Experimental
Investigational medicinal product name	Biktarvy 50 mg/200 mg/25 mg film-coated tablets
Investigational medicinal product code	J05AR20
Other name	Bictegravir
Pharmaceutical forms	Coated tablet
Routes of administration	Oral use

Dosage and administration details:

Dosage: 50 mg/200 mg/25 mgonce weekly during 48 weeks.
Each film-coated tablet contains bictegravir sodium equivalent to 50 mg of bictegravir, 200 mg of emtricitabine, and tenofovir alafenamide fumarate equivalent to 25 mg of tenofovir alafenamide.

Number of subjects in period 1[1]	OD arm	3W arm	2W arm
Started	9	10	10
Completed	8	9	9
Not completed	1	1	1
Participant decision to switch to long-acting CAB/	-	-	-
Did not complete assigned intervention	-	-	1
Lost to follow-up	1	-	-
Lack of efficacy	-	1	-

Number of subjects in period 1[1]	1W arm
Started	10
Completed	7
Not completed	3
Participant decision to switch to long-acting CAB/	1
Did not complete assigned intervention	-
Lost to follow-up	-

Lack of efficacy	2

Notes:

[1] - The number of subjects reported to be in the baseline period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.

Justification: Forty subjects were enrolled and randomised. One subject withdrew consent before administration of the first dose of study medication and therefore did not enter the baseline/treatment period. Consequently, 39 subjects were included in Period 1.

Baseline characteristics

Reporting groups	
Reporting group title	Overall trial

Reporting group description: -

Reporting group values	Overall trial	Total	
Number of subjects	39	39	
Age categorical Units: Subjects			
In utero		0	
Preterm newborn infants (gestational age < 37 wks)		0	
Newborns (0-27 days)		0	
Infants and toddlers (28 days-23 months)		0	
Children (2-11 years)		0	
Adolescents (12-17 years)		0	
Adults (18-64 years)		0	
From 65-84 years		0	
85 years and over		0	
Age continuous Units: years			
median	40		
inter-quartile range (Q1-Q3)	33 to 46	-	
Gender categorical Units: Subjects			
Female	3	3	
Male	36	36	

End points

End points reporting groups

Reporting group title	OD arm
Reporting group description:	
Participants randomly assigned to continue once-daily (OD) B/F/TAF treatment for 48 weeks.	
Reporting group title	3W arm
Reporting group description:	
Participants randomly assigned to receive three times per week (3W; Monday, Wednesday, Friday) B/F/TAF treatment for 48 weeks.	
Reporting group title	2W arm
Reporting group description:	
Participants randomly assigned to continue two times per week (2W, Twesday, Friday) B/F/TAF treatment for 48 weeks.	
Reporting group title	1W arm
Reporting group description:	
Participants randomly assigned to continue one weekly (1W) B/F/TAF treatment for 48 weeks.	

Primary: Patients with VL <50 copies at 12 weeks (FDA snapshot algorithm) in the intention-to-treat (ITT) population.

End point title	Patients with VL <50 copies at 12 weeks (FDA snapshot algorithm) in the intention-to-treat (ITT) population.[1]
End point description:	
Patients with VL <50 copies at 12 weeks (FDA snapshot algorithm) in the intention-to-treat (ITT) population.	
End point type	Primary
End point timeframe:	
12 weeks	

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: This was an exploratory phase 2 pilot study designed to generate preliminary clinical and biological data. No formal hypothesis testing or powered comparison between treatment groups was planned. The primary endpoint was analysed descriptively using the FDA Snapshot algorithm, and results were summarized as proportions with exact 95% confidence intervals by treatment arm. Therefore, no formal statistical test was specified for this primary endpoint.

End point values	OD arm	3W arm	2W arm	1W arm
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	9	10	10	10
Units: Number of subjects				
Virological succes	9	9	10	8
Virological failure	0	1	0	2
No virological data	0	0	0	0

Statistical analyses

No statistical analyses for this end point

Primary: Patients with VL <50 copies at 48 weeks (FDA snapshot algorithm) in the intention-to-treat (ITT) population.

End point title	Patients with VL <50 copies at 48 weeks (FDA snapshot algorithm) in the intention-to-treat (ITT) population.[2]

End point description:

Patients with VL <50 copies at 48 weeks (FDA snapshot algorithm) in the intention-to-treat (ITT) population.

End point type	Primary

End point timeframe:

48 weeks

Notes:

[2] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: This was an exploratory phase 2 pilot study designed to generate preliminary clinical and biological data. No formal hypothesis testing or powered comparison between treatment groups was planned. The primary endpoint was analysed descriptively using the FDA Snapshot algorithm, and results were summarized as proportions with exact 95% confidence intervals by treatment arm. Therefore, no formal statistical test was specified for this primary endpoint.

End point values	OD arm	3W arm	2W arm	1W arm
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	9	10	10	10
Units: Number of subjects				
Virological success	8	9	9	7
Virological failure	0	1	0	2
No virological data	1	0	1	1

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events: From treatment initiation (Day 0) until Week 48 or early termination.	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	25.0

Reporting groups	
Reporting group title	OD arm
Reporting group description: Participants randomly assigned to continue once-daily (OD) B/F/TAF treatment for 48 weeks.	
Reporting group title	3W arm
Reporting group description: Participants randomly assigned to receive three times per week (3W; Monday, Wednesday, Friday) B/F/TAF treatment for 48 weeks.	
Reporting group title	2W arm
Reporting group description: Participants randomly assigned to continue two times per week (2W, Twesday, Friday) B/F/TAF treatment for 48 weeks.	
Reporting group title	1W arm
Reporting group description: Participants randomly assigned to continue one weekly (1W) B/F/TAF treatment for 48 weeks.	

Serious adverse events	OD arm	3W arm	2W arm
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 9 (0.00%)	0 / 10 (0.00%)	0 / 10 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0

Serious adverse events	1W arm		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 10 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		

Frequency threshold for reporting non-serious adverse events: 5 %

Non-serious adverse events	OD arm	3W arm	2W arm
Total subjects affected by non-serious adverse events			
subjects affected / exposed	4 / 9 (44.44%)	6 / 10 (60.00%)	8 / 10 (80.00%)
Cardiac disorders			
Cardiovascular			
subjects affected / exposed	0 / 9 (0.00%)	1 / 10 (10.00%)	0 / 10 (0.00%)
occurrences (all)	0	1	0
Nervous system disorders			
Neurological			
subjects affected / exposed	0 / 9 (0.00%)	0 / 10 (0.00%)	1 / 10 (10.00%)
occurrences (all)	0	0	1
Eye disorders			
Ocular			
subjects affected / exposed	0 / 9 (0.00%)	0 / 10 (0.00%)	1 / 10 (10.00%)
occurrences (all)	0	0	1
Gastrointestinal disorders			
Gastrointestinal			
subjects affected / exposed	1 / 9 (11.11%)	0 / 10 (0.00%)	0 / 10 (0.00%)
occurrences (all)	1	0	0
Skin and subcutaneous tissue disorders			
Dermatologic			
subjects affected / exposed	0 / 9 (0.00%)	0 / 10 (0.00%)	0 / 10 (0.00%)
occurrences (all)	0	0	0
Musculoskeletal and connective tissue disorders			
Musculoskeletal			
subjects affected / exposed	1 / 9 (11.11%)	2 / 10 (20.00%)	5 / 10 (50.00%)
occurrences (all)	1	2	5
Infections and infestations			
Infections			
subjects affected / exposed	2 / 9 (22.22%)	3 / 10 (30.00%)	1 / 10 (10.00%)
occurrences (all)	2	3	1

Non-serious adverse events	1W arm		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	6 / 10 (60.00%)		
Cardiac disorders			
Cardiovascular			

subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0		
Nervous system disorders Neurological subjects affected / exposed occurrences (all)	 2 / 10 (20.00%) 2		
Eye disorders Ocular subjects affected / exposed occurrences (all)	 0 / 10 (0.00%) 0		
Gastrointestinal disorders Gastrointestinal subjects affected / exposed occurrences (all)	 1 / 10 (10.00%) 1		
Skin and subcutaneous tissue disorders Dermatologic subjects affected / exposed occurrences (all)	 1 / 10 (10.00%) 1		
Musculoskeletal and connective tissue disorders Musculoskeletal subjects affected / exposed occurrences (all)	 0 / 10 (0.00%) 0		
Infections and infestations Infections subjects affected / exposed occurrences (all)	 2 / 10 (20.00%) 2		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

Small single-centre pilot study with a limited sample size (n=39) and 48-week follow-up. The selected population was predominantly male, highly adherent and virologically suppressed at baseline, limiting generalisability. The study was not powered fo

Notes:

Online references

http://www.ncbi.nlm.nih.gov/pubmed/42668592