



Clinical trial results:

A Phase 2 Study to Evaluate the Safety, Reactogenicity, and Immunogenicity of a Heterologous 2-dose Vaccination Regimen Using Ad26.ZEBOV and MVA-BN-Filo in Infants Aged 4-11 Months in Guinea and Sierra Leone

Summary

EudraCT number	2021-001331-10
Trial protocol	Outside EU/EEA
Global end of trial date	22 September 2022

Results information

Result version number	v1 (current)
This version publication date	21 May 2023
First version publication date	21 May 2023

Trial information

Trial identification

Sponsor protocol code	VAC52150EBL2005
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Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03929757
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Janssen Vaccines & Prevention B.V.
Sponsor organisation address	Newtonweg 1, CP Leiden, Netherlands, 2333
Public contact	Clinical Registry Group, Janssen Vaccines & Prevention B.V., ClinicalTrialsEU@its.jnj.com
Scientific contact	Clinical Registry Group, Janssen Vaccines & Prevention B.V., ClinicalTrialsEU@its.jnj.com

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?	Yes

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	22 September 2022
Is this the analysis of the primary completion data?	No
Global end of trial reached?	Yes
Global end of trial date	22 September 2022
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The main objective of this trial was to assess the safety and reactogenicity of a heterologous 2-dose regimen utilising adenovirus serotype 26 expressing the Ebola virus Mayinga glycoprotein (Ad26.ZEBOV) (first vaccination; Dose 1) and Modified Vaccinia Ankara Bavarian Nordic vector expressing multiple filovirus proteins (MVA-BN-Filo) (second vaccination; Dose 2) administered intramuscular(ly) (IM) on Days 1 and 57, respectively.

Protection of trial subjects:

This study was conducted in accordance with the ethical principles that have their origin in the Declaration of Helsinki and that are consistent with Good Clinical Practices (GCP) and applicable regulatory requirements.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	19 August 2019
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	Guinea: 53
Country: Number of subjects enrolled	Sierra Leone: 55
Worldwide total number of subjects	108
EEA total number of subjects	0

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)	108
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	0
From 65 to 84 years	0

85 years and over	0
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Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

A total of 142 subjects were screened in this study, out of which 108 subjects were enrolled in the main study (75 subjects in Ad26.ZEBOV + MVA-BN-Filo and 33 in MenACWY arms). Out of 105 subjects who completed the main study, 26 subjects were rolled over to an extension study, where 25 subjects completed the extension study.

Period 1

Period 1 title	Main Study: Up to Day 365
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	Main Study: Ad26.ZEBOV + MVA-BN-Filo + MenACWY

Arm description:

Healthy subjects (infants) aged 4-11 months, were administered with 0.5 milliliter (mL) of adenovirus serotype 26 encoding the Ebola virus Mayinga glycoprotein (Ad26.ZEBOV) vaccine (5×10^{10} viral particles [vp]) on Day 1 by intramuscular (IM) injection followed by 0.5 mL of Modified Vaccinia Ankara Bavarian Nordic vector encoding multiple filovirus proteins (MVA-BN-Filo; 1×10^8 infectious units [Inf U]) vaccine by IM injection on Day 57. Subjects also received a dose of World Health Organisation (WHO)-prequalified 0.5 mL of Meningococcal Group A, C, W135, and Y conjugate (MenACWY) vaccine by IM injection at the 6-months post-dose 2 visit, that is, Day 237.

Arm type	Experimental
Investigational medicinal product name	Ad26.ZEBOV
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL of Ad26.ZEBOV (5×10^{10} vp) vaccine was administered as an IM injection on Day 1.

Investigational medicinal product name	MenACWY
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL of MenACWY vaccine was administered as an IM injection at 6-months post-dose-2 visit, that is Day 237.

Investigational medicinal product name	MVA-BN-Filo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL of MVA-BN-Filo (1×10^8 Inf U) vaccine was administered as an IM injection on Day 57.

Arm title	Main Study: MenACWY (Control Arm)
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Arm description:

Healthy subjects were administered with 0.5 mL of MenACWY vaccine by IM injection on Day 1 and Day 57. Subjects also received a dose of MenACWY vaccine by IM injection at the 6-months post-dose 2 visit, that is, Day 237.

Arm type	Experimental
Investigational medicinal product name	MenACWY
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL of MenACWY vaccine was administered as an IM injection at 6-months post-dose-2 visit, that is Day 237.

Number of subjects in period 1	Main Study: Ad26.ZEBOV + MVA-BN-Filo +	Main Study: MenACWY (Control Arm)
Started	75	33
Completed	72	33
Not completed	3	0
Unspecified	1	-
Withdrawal by parent/guardian	2	-

Period 2

Period 2 title	Extension Study: Up to Extension Day 85
Is this the baseline period?	No
Allocation method	Not applicable
Blinding used	Not blinded

Arms

Arm title	Extension Study: Ad26.ZEBOV + MVA-BN-Filo
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Arm description:

Subjects who were originally randomised to the control arm and who had not withdrawn during the main study entered the extension phase to receive 0.5 mL of Ad26.ZEBOV vaccine (5×10^{10} vp) on Day 1 by IM injection followed by 0.5 mL of MVA-BN-Filo (1×10^8 infectious units [Inf U]) vaccine by IM injection on Day 57. Subjects were also followed-up for safety until 28 days post-dose 2, that is, Day 85.

Arm type	Experimental
Investigational medicinal product name	MVA-BN-Filo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL of MVA-BN-Filo (1×10^8 Inf U) vaccine was administered as an IM injection on Day 57.

Investigational medicinal product name	Ad26.ZEBOV
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL of Ad26.ZEBOV (5×10^{10} vp) vaccine was administered as an IM injection on Day 1.

Number of subjects in period 2^[1]	Extension Study: Ad26.ZEBOV + MVA-BN-Filo
Started	26
Completed	25
Not completed	1
Adverse event, non-fatal	1

Notes:

[1] - The number of subjects starting the period is not consistent with the number completing the preceding period. It is expected the number of subjects starting the subsequent period will be the same as the number completing the preceding period.

Justification: Out of 105 subjects who completed the main study, only 26 subjects rolled-over to extension phase.

Baseline characteristics

Reporting groups

Reporting group title	Main Study: Ad26.ZEBOV + MVA-BN-Filo + MenACWY
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Reporting group description:

Healthy subjects (infants) aged 4-11 months, were administered with 0.5 milliliter (mL) of adenovirus serotype 26 encoding the Ebola virus Mayinga glycoprotein (Ad26.ZEBOV) vaccine (5×10^{10} viral particles [vp]) on Day 1 by intramuscular (IM) injection followed by 0.5 mL of Modified Vaccinia Ankara Bavarian Nordic vector encoding multiple filovirus proteins (MVA-BN-Filo; 1×10^8 infectious units [Inf U]) vaccine by IM injection on Day 57. Subjects also received a dose of World Health Organisation (WHO)-prequalified 0.5 mL of Meningococcal Group A, C, W135, and Y conjugate (MenACWY) vaccine by IM injection at the 6-months post-dose 2 visit, that is, Day 237.

Reporting group title	Main Study: MenACWY (Control Arm)
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Reporting group description:

Healthy subjects were administered with 0.5 mL of MenACWY vaccine by IM injection on Day 1 and Day 57. Subjects also received a dose of MenACWY vaccine by IM injection at the 6-months post-dose 2 visit, that is, Day 237.

Reporting group values	Main Study: Ad26.ZEBOV + MVA-BN-Filo +	Main Study: MenACWY (Control Arm)	Total
Number of subjects	75	33	108
Title for AgeCategorical Units: subjects			
4 to <= 8 months	43	19	62
>8 to 11 months	32	14	46
Title for AgeContinuous Units: months			
arithmetic mean	7.7	7.5	-
standard deviation	± 2.51	± 2.66	-
Title for Gender Units: subjects			
Female	37	13	50
Male	38	20	58

End points

End points reporting groups

Reporting group title	Main Study: Ad26.ZEBOV + MVA-BN-Filo + MenACWY
Reporting group description: Healthy subjects (infants) aged 4-11 months, were administered with 0.5 milliliter (mL) of adenovirus serotype 26 encoding the Ebola virus Mayinga glycoprotein (Ad26.ZEBOV) vaccine (5×10^{10} viral particles [vp]) on Day 1 by intramuscular (IM) injection followed by 0.5 mL of Modified Vaccinia Ankara Bavarian Nordic vector encoding multiple filovirus proteins (MVA-BN-Filo; 1×10^8 infectious units [Inf U]) vaccine by IM injection on Day 57. Subjects also received a dose of World Health Organisation (WHO)-prequalified 0.5 mL of Meningococcal Group A, C, W135, and Y conjugate (MenACWY) vaccine by IM injection at the 6-months post-dose 2 visit, that is, Day 237.	
Reporting group title	Main Study: MenACWY (Control Arm)
Reporting group description: Healthy subjects were administered with 0.5 mL of MenACWY vaccine by IM injection on Day 1 and Day 57. Subjects also received a dose of MenACWY vaccine by IM injection at the 6-months post-dose 2 visit, that is, Day 237.	
Reporting group title	Extension Study: Ad26.ZEBOV + MVA-BN-Filo
Reporting group description: Subjects who were originally randomised to the control arm and who had not withdrawn during the main study entered the extension phase to receive 0.5 mL of Ad26.ZEBOV vaccine (5×10^{10} vp) on Day 1 by IM injection followed by 0.5 mL of MVA-BN-Filo (1×10^8 infectious units [Inf U]) vaccine by IM injection on Day 57. Subjects were also followed-up for safety until 28 days post-dose 2, that is, Day 85.	

Primary: Percentage of Subjects with Solicited Local and Systemic Adverse Events (AEs) at 7 Days Post-dose 1

End point title	Percentage of Subjects with Solicited Local and Systemic Adverse Events (AEs) at 7 Days Post-dose 1 ^[1]
End point description: An AE is any untoward medical occurrence in a subject participating in a clinical study that does not necessarily have a causal relationship with the pharmaceutical/biological agent under study. Solicited local AEs that included injection site pain/tenderness, erythema, induration/swelling, itching at the vaccination site, were pre-defined local (at the injection site) AEs for which subject were specifically questioned and which were noted by subject in their diary for 7 days post vaccination. Solicited systemic events included fever, headache, fatigue/malaise, myalgia, nausea/vomiting, arthralgia and chills. The full analysis set included all subjects with at least one study intervention administration documented.	
End point type	Primary
End point timeframe: From dose 1 (Day 1) up to 7 days post-dose 1 (Day 8)	

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: No inferential statistics were planned for this study.

End point values	Main Study: Ad26.ZEBOV + MVA-BN-Filo + MenACWY	Main Study: MenACWY (Control Arm)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	75	33		
Units: Percentage of subjects				
number (not applicable)	45.3	30.3		

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Subjects with Solicited Local and Systemic AEs at 7 Days Post-dose 2

End point title	Percentage of Subjects with Solicited Local and Systemic AEs at 7 Days Post-dose 2 ^[2]
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End point description:

An AE is any untoward medical occurrence in a subject participating in a clinical study that does not necessarily have a causal relationship with the pharmaceutical/biological agent under study. Solicited local AEs that included injection site pain/tenderness, erythema, induration/swelling, itching at the vaccination site, were pre-defined local (at the injection site) AEs for which subject were specifically questioned and which were noted by subject in their diary for 7 days post vaccination. Solicited systemic events included fever, headache, fatigue/malaise, myalgia, nausea/vomiting, arthralgia and chills. The full analysis set included all subjects with at least one study intervention administration documented.

End point type	Primary
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End point timeframe:

From dose 2 (Day 57) up to 7 days post-dose 2 (Day 64)

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: No inferential statistics were planned for this study.

End point values	Main Study: Ad26.ZEBOV + MVA-BN-Filo + MenACWY	Main Study: MenACWY (Control Arm)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	75	33		
Units: Percentage of Subjects				
number (not applicable)	33.3	36.4		

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Subjects with Unsolicited AEs at 28 Days Post-dose 1

End point title	Percentage of Subjects with Unsolicited AEs at 28 Days Post-dose 1 ^[3]
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End point description:

An AE is any untoward medical occurrence in a subject participating in a clinical study that does not necessarily have a causal relationship with the pharmaceutical/biological agent under study. Unsolicited AEs were events which were reported by the subject voluntarily or obtained by means of interviewing the subject in a nondirected manner at study visits. The full analysis set included all subjects with at least one study intervention administration documented.

End point type	Primary
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End point timeframe:

From dose 1 (Day 1) up to 28 days post-dose 1 (Day 29)

Notes:

[3] - 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: No inferential statistics were planned for this study.

End point values	Main Study: Ad26.ZEBOV + MVA-BN-Filo + MenACWY	Main Study: MenACWY (Control Arm)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	75	33		
Units: Percentage of Subjects				
number (not applicable)	61.3	66.7		

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Subjects with Unsolicited AEs at 28 Days Post-dose 2

End point title	Percentage of Subjects with Unsolicited AEs at 28 Days Post-dose 2 ^[4]
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End point description:

An AE is any untoward medical occurrence in a subject participating in a clinical study that does not necessarily have a causal relationship with the pharmaceutical/biological agent under study. Unsolicited AEs were events which were reported by the subject voluntarily or obtained by means of interviewing the subject in a nondirected manner at study visits. The full analysis set included all subjects with at least one study intervention administration documented.

End point type	Primary
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End point timeframe:

From dose 2 (Day 57) up to 28 days post-dose 2 (Day 85)

Notes:

[4] - 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: No inferential statistics were planned for this study.

End point values	Main Study: Ad26.ZEBOV + MVA-BN-Filo + MenACWY	Main Study: MenACWY (Control Arm)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	75	33		
Units: Percentage of Subjects				
number (not applicable)	57.3	72.7		

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Subjects with Serious Adverse Events (SAEs)

End point title	Percentage of Subjects with Serious Adverse Events (SAEs) ^[5]
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End point description:

A SAE is an adverse event resulting in any of the following outcomes or deemed significant for any other reason: death; initial or prolonged inpatient hospitalization; life-threatening experience (immediate risk of dying); persistent or significant disability/incapacity; congenital anomaly. The full analysis set included all subjects with at least one study intervention administration documented.

End point type	Primary
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End point timeframe:

Up to 6 months post dose-2 on Day 57 (Up to 8 months)

Notes:

[5] - 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: No inferential statistics were planned for this study.

End point values	Main Study: Ad26.ZEBOV + MVA-BN-Filo + MenACWY	Main Study: MenACWY (Control Arm)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	75	33		
Units: Percentage of Subjects				
number (not applicable)	13.3	12.1		

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Subjects with SAEs Related to Study Intervention

End point title	Percentage of Subjects with SAEs Related to Study
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End point description:

Percentage of subjects with SAEs related to study intervention were reported. A SAE is an adverse event resulting in any of the following outcomes or deemed significant for any other reason: death; initial or prolonged inpatient hospitalization; life-threatening experience (immediate risk of dying); persistent or significant disability/incapacity; congenital anomaly. The full analysis set included all subjects with at least one study intervention administration documented.

End point type	Primary
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End point timeframe:

Up to Day 365

Notes:

[6] - 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: No inferential statistics were planned for this study.

End point values	Main Study: Ad26.ZEBOV + MVA-BN-Filo + MenACWY	Main Study: MenACWY (Control Arm)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	75	33		
Units: Percentage of Subjects				
number (not applicable)	0	0		

Statistical analyses

No statistical analyses for this end point

Secondary: Geometric Mean of Binding Antibody Levels Against the Ebola Virus Glycoprotein (EBOV GP)

End point title	Geometric Mean of Binding Antibody Levels Against the Ebola Virus Glycoprotein (EBOV GP)
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End point description:

Geometric mean of binding antibody levels against the EBOV GP were reported. The per-protocol immunogenicity population included all randomised and vaccinated subjects for whom immunogenicity data were available excluding subjects with major protocol deviations expecting to impact the immunogenicity outcomes (for example, missed Dose 2 vaccination, natural infections, etc.). Here, 99999 stands for data not available for geometric mean and confidence interval (CI) as the value was below lower limit of quantification (LLOQ) of 36.11 EU/mL.

End point type	Secondary
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End point timeframe:

21 days post-dose 2 (Day 78)

End point values	Main Study: Ad26.ZEBOV + MVA-BN-Filo + MenACWY	Main Study: MenACWY (Control Arm)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	74	33		
Units: ELISA Units/millilitre (EU/mL)				
geometric mean (confidence interval 95%)	24309 (19695 to 30005)	99999 (99999 to 99999)		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Main study: Up to Day 365 ; Extension study: Up to extension Day 85

Adverse event reporting additional description:

The full analysis set included all subjects with at least one study intervention administration documented.

Assessment type	Non-systematic
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Dictionary used

Dictionary name	MedDRA
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Dictionary version	23.1
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Reporting groups

Reporting group title	Main Study: Ad26.ZEBOV+MVA-BN-Filo+MenACWY
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Reporting group description:

Healthy subjects (infants) aged 4-11 months, were administered with 0.5 millilitre (mL) of adenovirus serotype 26 encoding the Ebola virus Mayinga glycoprotein (Ad26.ZEBOV) vaccine (5×10^{10} viral particles [vp]) on Day 1 by intramuscular (IM) injection followed by 0.5 mL of Modified Vaccinia Ankara Bavarian Nordic vector encoding multiple filovirus proteins (MVA-BN-Filo; 1×10^8 infectious units [Inf U]) vaccine by IM injection on Day 57. Subjects also received a dose of World Health Organisation (WHO)-prequalified 0.5 mL of Meningococcal Group A, C, W135, and Y conjugate (MenACWY) vaccine by IM injection at the 6-months post-dose 2 visit, that is, Day 237.

Reporting group title	Extension Study: Ad26.ZEBOV+MVA-BN-Filo
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Reporting group description:

Subjects who were originally randomised to the control arm and who had not withdrawn during the main study entered the extension phase to receive 0.5 mL of Ad26.ZEBOV vaccine (5×10^{10} vp) on Day 1 by IM injection followed by 0.5 mL of MVA-BN-Filo (1×10^8 infectious units [Inf U]) vaccine by IM injection on Day 57. Subjects were also followed-up for safety until 28 days post-dose 2, that is, Day 85.

Reporting group title	Main Study: MenACWY (Control Arm)
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Reporting group description:

Healthy subjects were administered with 0.5 mL of MenACWY vaccine by IM injection on Day 1 and Day 57. Subjects also received a dose of MenACWY vaccine by IM injection at the 6-months post-dose 2 visit, that is, Day 237.

Serious adverse events	Main Study: Ad26.ZEBOV+MVA-BN-Filo+MenACWY	Extension Study: Ad26.ZEBOV+MVA-BN-Filo	Main Study: MenACWY (Control Arm)
Total subjects affected by serious adverse events			
subjects affected / exposed	10 / 75 (13.33%)	0 / 26 (0.00%)	4 / 33 (12.12%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events			
Vascular disorders			
Hypovolaemic Shock			
subjects affected / exposed	0 / 75 (0.00%)	0 / 26 (0.00%)	1 / 33 (3.03%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Blood and lymphatic system disorders			

Anaemia			
subjects affected / exposed	1 / 75 (1.33%)	0 / 26 (0.00%)	0 / 33 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	0 / 75 (0.00%)	0 / 26 (0.00%)	1 / 33 (3.03%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Vomiting			
subjects affected / exposed	1 / 75 (1.33%)	0 / 26 (0.00%)	0 / 33 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
Bronchiolitis			
subjects affected / exposed	1 / 75 (1.33%)	0 / 26 (0.00%)	1 / 33 (3.03%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Conjunctivitis			
subjects affected / exposed	1 / 75 (1.33%)	0 / 26 (0.00%)	0 / 33 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastroenteritis			
subjects affected / exposed	5 / 75 (6.67%)	0 / 26 (0.00%)	1 / 33 (3.03%)
occurrences causally related to treatment / all	0 / 5	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrointestinal Candidiasis			
subjects affected / exposed	0 / 75 (0.00%)	0 / 26 (0.00%)	1 / 33 (3.03%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Malaria			
subjects affected / exposed	2 / 75 (2.67%)	0 / 26 (0.00%)	1 / 33 (3.03%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Measles			
subjects affected / exposed	1 / 75 (1.33%)	0 / 26 (0.00%)	0 / 33 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nasopharyngitis			
subjects affected / exposed	1 / 75 (1.33%)	0 / 26 (0.00%)	0 / 33 (0.00%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Sepsis			
subjects affected / exposed	0 / 75 (0.00%)	0 / 26 (0.00%)	1 / 33 (3.03%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Metabolism and nutrition disorders			
Dehydration			
subjects affected / exposed	2 / 75 (2.67%)	0 / 26 (0.00%)	0 / 33 (0.00%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Malnutrition			
subjects affected / exposed	1 / 75 (1.33%)	0 / 26 (0.00%)	0 / 33 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

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

Non-serious adverse events	Main Study: Ad26.ZEBOV+MVA- BN-Filo+MenACWY	Extension Study: Ad26.ZEBOV+MVA- BN-Filo	Main Study: MenACWY (Control Arm)
Total subjects affected by non-serious adverse events			
subjects affected / exposed	58 / 75 (77.33%)	9 / 26 (34.62%)	26 / 33 (78.79%)
Blood and lymphatic system disorders			
Anaemia			
subjects affected / exposed	1 / 75 (1.33%)	2 / 26 (7.69%)	0 / 33 (0.00%)
occurrences (all)	2	2	0
Gastrointestinal disorders			
Enteritis			

subjects affected / exposed occurrences (all)	4 / 75 (5.33%) 4	0 / 26 (0.00%) 0	0 / 33 (0.00%) 0
Respiratory, thoracic and mediastinal disorders Rhinitis Allergic subjects affected / exposed occurrences (all)	1 / 75 (1.33%) 1	2 / 26 (7.69%) 3	0 / 33 (0.00%) 0
Skin and subcutaneous tissue disorders Dermatitis subjects affected / exposed occurrences (all) Dermatitis Diaper subjects affected / exposed occurrences (all)	0 / 75 (0.00%) 0 4 / 75 (5.33%) 5	0 / 26 (0.00%) 0 0 / 26 (0.00%) 0	2 / 33 (6.06%) 2 1 / 33 (3.03%) 2
Infections and infestations Acarodermatitis subjects affected / exposed occurrences (all) Bronchitis subjects affected / exposed occurrences (all) Conjunctivitis Bacterial subjects affected / exposed occurrences (all) Gastrointestinal Candidiasis subjects affected / exposed occurrences (all) Gastroenteritis subjects affected / exposed occurrences (all) Furuncle subjects affected / exposed occurrences (all) Helminthic Infection subjects affected / exposed occurrences (all) Malaria	6 / 75 (8.00%) 8 9 / 75 (12.00%) 10 2 / 75 (2.67%) 3 5 / 75 (6.67%) 5 6 / 75 (8.00%) 6 6 / 75 (8.00%) 6 1 / 75 (1.33%) 1	0 / 26 (0.00%) 0 1 / 26 (3.85%) 1 0 / 26 (0.00%) 0 0 / 26 (0.00%) 0 0 / 26 (0.00%) 0 1 / 26 (3.85%) 1 3 / 26 (11.54%) 3	4 / 33 (12.12%) 4 7 / 33 (21.21%) 8 2 / 33 (6.06%) 2 1 / 33 (3.03%) 1 2 / 33 (6.06%) 2 3 / 33 (9.09%) 3 0 / 33 (0.00%) 0

subjects affected / exposed	13 / 75 (17.33%)	6 / 26 (23.08%)	9 / 33 (27.27%)
occurrences (all)	16	10	10
Nasopharyngitis			
subjects affected / exposed	12 / 75 (16.00%)	0 / 26 (0.00%)	6 / 33 (18.18%)
occurrences (all)	13	0	10
Oral Candidiasis			
subjects affected / exposed	7 / 75 (9.33%)	0 / 26 (0.00%)	3 / 33 (9.09%)
occurrences (all)	7	0	4
Respiratory Tract Infection			
subjects affected / exposed	15 / 75 (20.00%)	1 / 26 (3.85%)	9 / 33 (27.27%)
occurrences (all)	19	2	12
Rhinitis			
subjects affected / exposed	10 / 75 (13.33%)	0 / 26 (0.00%)	5 / 33 (15.15%)
occurrences (all)	12	0	5
Upper Respiratory Tract Infection			
subjects affected / exposed	8 / 75 (10.67%)	3 / 26 (11.54%)	6 / 33 (18.18%)
occurrences (all)	8	4	9

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
07 March 2019	The overall reason for the amendment was to allow flexibility in the amount of blood to be drawn for immunogenicity assessments and to clarify the intended study population age range.
01 October 2019	This amendment was written in response to the questions received from Food and Drug Administration (FDA) on 21-May-2019.
06 August 2020	The overall reason for the amendment was to ensure that final analysis Clinical Study Report (CSR) was completed within 6 months of study completion, in line with European Medicines Agency (EMA) Article 46.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported