Clinical trial results:
A Randomized, Observer-blind, Phase 2 Study to Evaluate the Safety, Reactogenicity, and Immunogenicity of Different Dose Levels of Ad26.COV2.S Administered as a One- or Two-dose Regimen in Healthy Adolescents From 12 to 17 Years Inclusive (HORIZON 2)

Summary

EudraCT number	2020-005720-11
Trial protocol	Outside EU/EEA
Global end of trial date	14 August 2023

Results information

Result version number	v1 (current)
This version publication date	06 March 2024
First version publication date	06 March 2024

Trial information

Trial identification

Sponsor protocol code	VAC31518COV3006

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT05007080
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Janssen Vaccines & Prevention B.V.
Sponsor organisation address	Newtonweg 1, Leiden, Netherlands, 2333 CP
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)	Yes
EMA paediatric investigation plan number(s)	EMEA-002880-PIP01-20
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	14 August 2023
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	14 August 2023
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The primary purpose of this study is to assess the safety, reactogenicity, and humoral immune response of Ad26.COV2.S administered intramuscularly (IM) as a 1-dose schedule or as a 2-dose schedule (56-day interval) in adolescents.

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 and applicable regulatory requirements.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	27 September 2021
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	Argentina: 35
Country: Number of subjects enrolled	Brazil: 55
Country: Number of subjects enrolled	India: 108
Country: Number of subjects enrolled	Mexico: 37
Country: Number of subjects enrolled	South Africa: 64
Worldwide total number of subjects	299
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)	0
Children (2-11 years)	0
Adolescents (12-17 years)	299

Adults (18-64 years)	0
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

Of the 304 randomized subjects, 3 subjects were randomized to an arm that was closed prior to vaccination due to ethical reasons and one was not vaccinated. One subject was excluded from the analysis due to lack of a valid informed consent form and is not presented in the below table.

Period 1

Period 1 title	Overall Study (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Single blind[1]
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo

Arm description:

Subjects received a single dose of Ad26.COV.S 2.5*10^10 virus particle (vp) as intramuscular (IM) injection on Day 1 and placebo matching to Ad26.COV.S 2.5*10^10 vp as IM injection on Day 57. Subjects were unblinded to the primary vaccination regimen at 6 months after the first vaccination. Subjects received booster vaccination with Ad26.COV.S 2.5*10^10 vp on Day 184.

Arm type	Experimental
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received placebo matching to Ad26.COV2.S 2.5*10^10 vp administered as IM injection on Day 57.

Investigational medicinal product name	Ad26.COV2.S
Investigational medicinal product code	JNJ-78436735
Other name	Ad26COVS1, VAC31518
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received single dose of Ad26.COV2.S 2.5*10^10 vp administered as IM injection on Day 1 and Ad26.COV.S 2.5*10^10 vp as a booster vaccination on Day 184.

Arm title	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo

Arm description:

Subjects received a single dose of Ad26.COV2.S 1.25*10^10 vp as IM injection on Day 1 and placebo matching to Ad26.COV2.S 1.25*10^10 vp as IM injection on Day 57. Subjects were unblinded to the primary vaccination regimen at 6 months after the first vaccination. Subjects received booster vaccination with Ad26.COV.S 2.5*10^10 vp on Day 184.

Arm type	Experimental

Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received placebo matching to Ad26.COV2.S 1.25*10^10 administered as IM injection on Day 57.

Investigational medicinal product name	Ad26.COV2.S
Investigational medicinal product code	JNJ-78436735
Other name	Ad26COVS1, VAC31518
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received single dose of Ad26.COV2.S 1.25*10^10 vp administered as IM injection on Day 1 and Ad26.COV.S 2.5*10^10 vp as a booster vaccination on Day 184.

Arm title	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo

Arm description:

Subjects received a single dose of Ad26.COV2.S 0.625*10^10 vp as IM injection on Day 1 and placebo matching to Ad26.COV2.S 0.625*10^10 vp as IM injection on Day 57. Subjects were unblinded to the primary vaccination regimen at 6 months after the first vaccination. Subjects received booster vaccination with Ad26.COV.S 2.5*10^10 vp on Day 184.

Arm type	Experimental
Investigational medicinal product name	Ad26.COV2.S
Investigational medicinal product code	JNJ-78436735
Other name	Ad26COVS1, VAC31518
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received single dose of Ad26.COV2.S 0.625*10^10 vp administered as IM injection on Day 1 and Ad26.COV.S 2.5*10^10 vp as a booster vaccination on Day 184.

Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received placebo matching to Ad26.COV2.S 0.625*10^10 administered as IM injection on Day 57.

Arm title	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S 2.5*10^10 vp

Arm description:

Subjects received a single dose of Ad26.COV2.S 2.5*10^10 vp as IM injection on Day 1 and Day 57. Participants were unblinded to the primary vaccination regimen at 6 months after the first vaccination.

Arm type	Experimental
Investigational medicinal product name	Ad26.COV2.S
Investigational medicinal product code	JNJ-78436735
Other name	Ad26COVS1, VAC31518
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received 2 doses of Ad26.COV2.S 2.5*10^10 administered as IM injection on Day 1 and Day 57.

Arm title	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S 1.25*10^10 vp

Arm description:

Subjects received a single dose of Ad26.COV2.S 1.25*10^10 vp as IM injection on Day 1 and Day 57. Participants were unblinded to the primary vaccination regimen at 6 months after the first vaccination.

Arm type	Experimental
Investigational medicinal product name	Ad26.COV2.S
Investigational medicinal product code	JNJ-78436735
Other name	Ad26COVS1, VAC31518
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received 2 doses of Ad26.COV2.S 1.25*10^10 vp dministered as IM injection on Day 1 and Day 57.

Arm title	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10 vp

Arm description:

Subjects received a single dose of Ad26.COV2.S 0.625*10^10 vp as IM injection on Day 1 and Day 57. Subjects were unblinded to the primary vaccination regimen at 6 months after the first vaccination.

Arm type	Experimental
Investigational medicinal product name	Ad26.COV2.S
Investigational medicinal product code	JNJ-78436735
Other name	Ad26COVS1, VAC31518
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received 2 doses Ad26.COV2.S 0.625*10^10 vp administered as IM injection on Day 1 and Day 57.

Notes:

[1] - The number of roles blinded appears inconsistent with a single blinded trial. It is expected that there will be one role blinded in a single blind trial.
Justification: The sponsor was unblinded at the time of the primary analysis, then the blind was maintained at a participant and study site level up to the unblinding visit.

Number of subjects in period 1	Group 1: Ad26.COV2.S 2.5*10^10 vp +	Group 2: Ad26.COV2.S 1.25*10^10 vp +	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo
Started	51	50	51
Completed	49	46	50
Not completed	2	4	1
Adverse event, serious fatal	-	1	-
Consent withdrawn by subject	1	2	-
Other	1	-	1
Lost to follow-up	-	1	-

Number of subjects in period 1	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10 vp
Started	49	49	49
Completed	45	47	45
Not completed	4	2	4
Adverse event, serious fatal	-	-	-
Consent withdrawn by subject	2	1	1

Other	1	-	2
Lost to follow-up	1	1	1

Baseline characteristics

Reporting groups	
Reporting group title	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo
Reporting group description:	
Subjects received a single dose of Ad26.COV.S 2.5*10^10 virus particle (vp) as intramuscular (IM) injection on Day 1 and placebo matching to Ad26.COV.S 2.5*10^10 vp as IM injection on Day 57. Subjects were unblinded to the primary vaccination regimen at 6 months after the first vaccination. Subjects received booster vaccination with Ad26.COV.S 2.5*10^10 vp on Day 184.	
Reporting group title	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo
Reporting group description:	
Subjects received a single dose of Ad26.COV2.S 1.25*10^10 vp as IM injection on Day 1 and placebo matching to Ad26.COV2.S 1.25*10^10 vp as IM injection on Day 57. Subjects were unblinded to the primary vaccination regimen at 6 months after the first vaccination. Subjects received booster vaccination with Ad26.COV.S 2.5*10^10 vp on Day 184.	
Reporting group title	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo
Reporting group description:	
Subjects received a single dose of Ad26.COV2.S 0.625*10^10 vp as IM injection on Day 1 and placebo matching to Ad26.COV2.S 0.625*10^10 vp as IM injection on Day 57. Subjects were unblinded to the primary vaccination regimen at 6 months after the first vaccination. Subjects received booster vaccination with Ad26.COV.S 2.5*10^10 vp on Day 184.	
Reporting group title	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S 2.5*10^10 vp
Reporting group description:	
Subjects received a single dose of Ad26.COV2.S 2.5*10^10 vp as IM injection on Day 1 and Day 57. Participants were unblinded to the primary vaccination regimen at 6 months after the first vaccination.	
Reporting group title	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S 1.25*10^10 vp
Reporting group description:	
Subjects received a single dose of Ad26.COV2.S 1.25*10^10 vp as IM injection on Day 1 and Day 57. Participants were unblinded to the primary vaccination regimen at 6 months after the first vaccination.	
Reporting group title	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10 vp
Reporting group description:	
Subjects received a single dose of Ad26.COV2.S 0.625*10^10 vp as IM injection on Day 1 and Day 57. Subjects were unblinded to the primary vaccination regimen at 6 months after the first vaccination.	

Reporting group values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo
Number of subjects	51	50	51
Title for AgeCategorical Units: subjects			
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	51	50	51
Adults (18-64 years)	0	0	0
From 65 to 84 years	0	0	0
85 years and over	0	0	0
Title for AgeContinuous Units: years			
arithmetic mean	14.1	14	14.3
standard deviation	± 1.87	± 1.82	± 1.76

Title for Gender Units: subjects			
Female	22	22	21
Male	29	28	30

Reporting group values	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S 2.5*10^10 vp	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S 1.25*10^10 vp	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10 vp
Number of subjects	49	49	49
Title for AgeCategorical Units: subjects			
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	49	49	49
Adults (18-64 years)	0	0	0
From 65 to 84 years	0	0	0
85 years and over	0	0	0
Title for AgeContinuous Units: years			
arithmetic mean	14.4	14.2	14.1
standard deviation	± 1.75	± 1.8	± 1.84
Title for Gender Units: subjects			
Female	20	21	20
Male	29	28	29

Reporting group values	Total		
Number of subjects	299		
Title for AgeCategorical Units: subjects			
Children (2-11 years)	0		
Adolescents (12-17 years)	299		
Adults (18-64 years)	0		
From 65 to 84 years	0		
85 years and over	0		
Title for AgeContinuous Units: years			
arithmetic mean			
standard deviation	-		
Title for Gender Units: subjects			
Female	126		
Male	173		

End points

End points reporting groups

Reporting group title	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo

Reporting group description:

Subjects received a single dose of Ad26.COV.S 2.5*10^10 virus particle (vp) as intramuscular (IM) injection on Day 1 and placebo matching to Ad26.COV.S 2.5*10^10 vp as IM injection on Day 57. Subjects were unblinded to the primary vaccination regimen at 6 months after the first vaccination. Subjects received booster vaccination with Ad26.COV.S 2.5*10^10 vp on Day 184.

Reporting group title	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo

Reporting group description:

Subjects received a single dose of Ad26.COV2.S 1.25*10^10 vp as IM injection on Day 1 and placebo matching to Ad26.COV2.S 1.25*10^10 vp as IM injection on Day 57. Subjects were unblinded to the primary vaccination regimen at 6 months after the first vaccination. Subjects received booster vaccination with Ad26.COV.S 2.5*10^10 vp on Day 184.

Reporting group title	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo

Reporting group description:

Subjects received a single dose of Ad26.COV2.S 0.625*10^10 vp as IM injection on Day 1 and placebo matching to Ad26.COV2.S 0.625*10^10 vp as IM injection on Day 57. Subjects were unblinded to the primary vaccination regimen at 6 months after the first vaccination. Subjects received booster vaccination with Ad26.COV.S 2.5*10^10 vp on Day 184.

Reporting group title	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S 2.5*10^10 vp

Reporting group description:

Subjects received a single dose of Ad26.COV2.S 2.5*10^10 vp as IM injection on Day 1 and Day 57. Participants were unblinded to the primary vaccination regimen at 6 months after the first vaccination.

Reporting group title	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S 1.25*10^10 vp

Reporting group description:

Subjects received a single dose of Ad26.COV2.S 1.25*10^10 vp as IM injection on Day 1 and Day 57. Participants were unblinded to the primary vaccination regimen at 6 months after the first vaccination.

Reporting group title	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10 vp

Reporting group description:

Subjects received a single dose of Ad26.COV2.S 0.625*10^10 vp as IM injection on Day 1 and Day 57. Subjects were unblinded to the primary vaccination regimen at 6 months after the first vaccination.

Primary: Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Solicited Local Adverse Events (AEs) at 7 Days Post-dose 2

End point title	Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Solicited Local Adverse Events (AEs) at 7 Days Post-dose 2[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 AEs were used to assess the reactogenicity of the study vaccine and were predefined as local (at the injection site) AEs for which subjects were specifically asked and which were noted by subjects in their reactogenicity diary for 7 days post each vaccination. Solicited local AEs were: injection site pain/tenderness, erythema, swelling at the vaccination site. Safety analysis set included all subjects with at least one vaccine administration documented. Here "N" number of subjects that started the Arm, signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints.

End point type	Primary

End point timeframe:

7 days post-dose 2 on Day 57 (Day 64)

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 formal statistical testing was done. Only descriptive statistics was performed.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	51	50	50	47
Units: subjects	8	10	3	16

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	49	48		
Units: subjects	9	10		

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Solicited Local Adverse Events (AEs) at 7 Days Post-dose 1

End point title	Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Solicited Local Adverse Events (AEs) at 7 Days Post-dose 1[2]

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 AEs were used to assess the reactogenicity of the study vaccine and were pre-defined as local (at the injection site) AEs for which subjects were specifically asked and which were noted by subjects in their reactogenicity diary for 7 days post each vaccination. Solicited local AEs were: injection site pain/tenderness, erythema, swelling at the vaccination site. Safety analysis set included all subjects with at least one vaccine administration documented.

End point type	Primary

End point timeframe:

7 days post-dose 1 on Day 1 (Day 8)

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 formal statistical testing was done. Only descriptive statistics was performed.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	51	50	51	49
Units: subjects	13	16	17	11

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	49	49		
Units: subjects	12	15		

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Solicited Systemic AEs at 7 Days Post-dose 1

End point title	Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Solicited Systemic AEs at 7 Days Post-dose 1[3]

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 AEs were used to assess the reactogenicity of the study vaccine and were predefined as systemic AES for which subjects were specifically asked and which were noted by subjects in their reactogenicity diary for 7 days post each vaccination. Subjects were instructed on how to note signs and symptoms in the diary on a daily basis for 7 days post-vaccination (day of vaccination and the subsequent 7 days) for the following solicited systemic AEs: fatigue, headache, nausea, myalgia and pyrexia. Safety analysis set included all subjects with at least one vaccine administration documented.

End point type	Primary

End point timeframe:

7 days post-dose 1 on Day 1 (Day 8)

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 formal statistical testing was done. Only descriptive statistics was performed.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	51	50	51	49
Units: subjects	20	13	18	14

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	49	49		
Units: subjects	16	16		

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Solicited Systemic AEs at 7 Days Post-dose 2

End point title	Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Solicited Systemic AEs at 7 Days Post-dose 2[4]

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 AEs were used to assess the reactogenicity of the study vaccine and were predefined as systemic AES for which subjects were specifically asked and which were noted by subjects in their reactogenicity diary for 7 days post each vaccination. Subjects were instructed on how to note signs and symptoms in the diary on a daily basis for 7 days post-vaccination (day of vaccination and the subsequent 7 days) for the following solicited systemic AEs: fatigue, headache, nausea, myalgia and pyrexia. Safety analysis set included all subjects with at least one vaccine administration documented. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints.

End point type	Primary

End point timeframe:

7 days post-dose 2 on Day 57 (Day 64)

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 formal statistical testing was done. Only descriptive statistics was performed.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	51	50	50	47
Units: subjects	11	10	4	14

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp +	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.		

	1.25*10^10 vp	COV2.S 0.625*10^10		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	49	48		
Units: subjects	10	11		

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Unsolicited AEs at 28 Days Post-dose 1

End point title	Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Unsolicited AEs at 28 Days Post-dose 1[5]

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 AEs that started within 7 days after vaccination but were ongoing after this 7-day window after each vaccination were also considered unsolicited AEs. Unsolicited AEs were defined as AEs for which the subjects were not specifically questioned in the subject's reactogenicity diary. Safety analysis set included all subjects with at least one vaccine administration documented.

End point type	Primary

End point timeframe:

28 days post-dose 1 on Day 1 (Day 29)

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 formal statistical testing was done. Only descriptive statistics was performed.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	51	50	51	49
Units: subjects	9	9	5	3

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	49	49		
Units: subjects	8	10		

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Unsolicited AEs at 28 Days Post-dose 2

End point title	Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Unsolicited AEs at 28 Days Post-dose 2[6]

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 AEs that started within 7 days after vaccination but were ongoing after this 7-day window after each vaccination are also considered unsolicited AEs. Unsolicited AEs were defined as AEs for which the subjects were not specifically questioned in the subject's reactogenicity diary. Safety analysis set included all subjects with at least one vaccine administration documented. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints.

End point type	Primary

End point timeframe:

28 days post-dose 2 on Day 57 (Day 85)

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 formal statistical testing was done. Only descriptive statistics was performed.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	51	50	50	47
Units: subjects	7	7	8	7

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	49	48		
Units: subjects	7	9		

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, and 3: Number of Subjects with MAAEs Leading to Discontinuation

End point title	Groups 1, 2, and 3: Number of Subjects with MAAEs Leading to Discontinuation[7][8]

End point description:

Number of subjects with MAAEs leading to discontinuation were reported. MAAEs were defined as AEs

with medically-attended visits including hospital, emergency room, urgent care clinic, or other visits to or from medical personnel for any reason. Routine study visits were not be considered medically-attended visits. New onset of chronic diseases were collected as part of the MAAEs. Safety analysis set included all subjects with at least one vaccine administration documented.

End point type	Primary

End point timeframe:

From first vaccination on Day 1 up to Day 366 (6 months after booster vaccination on Day 184)

Notes:

[7] - 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 formal statistical testing was done. Only descriptive statistics was performed.

[8] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Data for rest of the arms were reported as separate end points.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	51	50	51	
Units: subjects	0	0	0	

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with MAAEs 6 Months Post-Dose 2

End point title	Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with MAAEs 6 Months Post-Dose 2[9]

End point description:

MAAEs were defined as AEs with medically-attended visits including hospital, emergency room, urgent care clinic, or other visits to or from medical personnel for any reason. Routine study visits were not to be considered medically-attended visits. New onset of chronic diseases were collected as part of the MAAEs. Safety analysis set included all subjects with at least one vaccine administration documented. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints.

End point type	Primary

End point timeframe:

From the first vaccination (Day 1) until 6 months post-dose 2 on Day 57 (Up to Day 240)

Notes:

[9] - 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 formal statistical testing was done. Only descriptive statistics was performed.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	51	50	50	47
Units: subjects	4	6	2	2

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	49	48		
Units: subjects	4	5		

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Medically-attended Adverse Events (MAAEs) 6 Months Post-Dose 1

End point title	Groups 1, 2, 3, 4, 5 and 6: Number of Subjects with Medically-attended Adverse Events (MAAEs) 6 Months Post-Dose 1[10]

End point description:

MAAEs were defined as AEs with medically-attended visits including hospital, emergency room, urgent care clinic, or other visits to or from medical personnel for any reason. Routine study visits were not to be considered medically-attended visits. New onset of chronic diseases were collected as part of the MAAEs. Safety analysis set included all subjects with at least one vaccine administration documented.

End point type	Primary

End point timeframe:

From the first vaccination (Day 1) until 6 months post-dose 1 on Day 1 (Up to Day 184)

Notes:

[10] - 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 formal statistical testing was done. Only descriptive statistics was performed.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	51	50	51	49
Units: subjects	2	0	0	1

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	49	49		
Units: subjects	0	5		

Statistical analyses

No statistical analyses for this end point

Primary: Groups 4, 5 and 6: Number of Subjects with SAEs

End point title	Groups 4, 5 and 6: Number of Subjects with SAEs[11][12]

End point description:

SAE were defined as any untoward medical occurrence that at any dose results in any of the following outcomes: death; initial or prolonged inpatient hospitalization; life-threatening experience (immediate risk of dying); persistent or significant disability/incapacity; congenital anomaly/birth defect; suspected transmission of any infectious agent via a medicinal product or medically important. Safety analysis set included all subjects with at least one vaccine administration documented.

End point type	Primary

End point timeframe:

From first vaccination on Day 1 up to Day 240 (6 months after second vaccination on Day 57)

Notes:

[11] - 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 formal statistical testing was done. Only descriptive statistics was performed.

[12] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Data for rest of the arms were reported as separate end points.

End point values	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	49	49	49	
Units: subjects	0	1	0	

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, and 3: Number of Subjects with Serious Adverse Events (SAEs)

End point title	Groups 1, 2, and 3: Number of Subjects with Serious Adverse Events (SAEs)[13][14]

End point description:

SAE were defined as any untoward medical occurrence that at any dose results in any of the following outcomes: death; initial or prolonged inpatient hospitalization; life-threatening experience (immediate risk of dying); persistent or significant disability/incapacity; congenital anomaly/birth defect; suspected transmission of any infectious agent via a medicinal product or medically important. Safety analysis set included all subjects with at least one vaccine administration documented.

End point type	Primary

End point timeframe:

From first vaccination on Day 1 up to Day 366 (6 months after booster vaccination on Day 184)

Notes:

[13] - 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 formal statistical testing was done. Only descriptive statistics was performed.

[14] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Data for rest of the arms were reported as separate end points.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	51	50	51	
Units: subjects	1	1	0	

Statistical analyses

No statistical analyses for this end point

Primary: Groups 4, 5 and 6: Number of Subjects with MAAEs Leading to Discontinuation

End point title	Groups 4, 5 and 6: Number of Subjects with MAAEs Leading to Discontinuation[15][16]

End point description:

Number of subjects with MAAEs leading to discontinuation were reported. MAAEs were defined as AEs with medically-attended visits including hospital, emergency room, urgent care clinic, or other visits to or from medical personnel for any reason. Routine study visits were not be considered medically-attended visits. New onset of chronic diseases were collected as part of the MAAEs. Safety analysis set included all subjects with at least one vaccine administration documented.

End point type	Primary

End point timeframe:

From first vaccination on Day 1 up to Day 240 (6 months after second vaccination on Day 57)

Notes:

[15] - 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 formal statistical testing was done. Only descriptive statistics was performed.

[16] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Data for rest of the arms were reported as separate end points.

End point values	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	49	49	49	
Units: subjects	0	0	0	

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, and 3: Number of Subjects with Adverse Events of Special Interest (AESI) (Including Multisystem Inflammatory Syndrome in Children [MIS-C])

End point title	Groups 1, 2, and 3: Number of Subjects with Adverse Events of Special Interest (AESI) (Including Multisystem Inflammatory Syndrome in Children [MIS-C])[17][18]

End point description:

Number of subjects with AESI (including MIS-C) were reported. Thrombotic events (suspected deep vessel venous or arterial thrombotic events); Thrombocytopenia (platelet count below 150,000/µL) and MIS-C (a subject <21 years with fever, evidence of inflammation, and evidence of clinically severe illness requiring hospitalization, with multisystem (≥2) organ involvement [cardiac, renal, respiratory, hematologic, gastrointestinal, dermatologic or neurological]; & No alternative diagnoses; & Positive for coronavirus disease 2019 [COVID-19] infection by Real-time reverse transcriptase-polymerase chain reaction [RT-PCR], serology, or antigen test; or COVID-19 exposure within 4 weeks prior to symptoms) were considered AESIs in this study. Safety analyses set included subjects who had at least one vaccine administration. Here "N" signifies the number of subjects evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints.

End point type	Primary

End point timeframe:

From first vaccination on Day 1 up to Day 366 (6 months after booster vaccination on Day 184)

Notes:

[17] - 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 formal statistical testing was done. Only descriptive statistics was performed.

[18] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Data for rest of the arms were reported as separate end points.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	13	18	15	
Units: subjects	0	0	0	

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, 3, 4, 5 and 6: Serological Response to Vaccination Measured by Spike-enzyme-linked Immunosorbent Assay (S-ELISA) at 28 Days Post-dose 1

End point title	Groups 1, 2, 3, 4, 5 and 6: Serological Response to Vaccination

	Measured by Spike-enzyme-linked Immunosorbent Assay (S-ELISA) at 28 Days Post-dose 1[19]

End point description:

Serological response to vaccination were measured by S-ELISA (ELISA Units/mL [EU/mL]) at 28 days post-dose 1. For Vaccine-specific responses, a subject was defined as a responder if: 1. a baseline sample value of less than or equal to the lower limit of quantification (<=LLOQ) and a postbaseline sample strictly greater than the LLOQ; or 2. a baseline sample value strictly >LLOQ and a postbaseline sample value representing an at least 4-fold increase from the baseline sample value, was reported. The Per Protocol Immunogenicity (PPI) set included all randomized and vaccinated subjects for whom immunogenicity data were available excluding data from subjects with major protocol deviations expected to impact the immunogenicity outcomes. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints.

End point type	Primary

End point timeframe:

28 days post-dose 1 on Day 1 (Day 29)

Notes:

[19] - 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 formal statistical testing was done. Only descriptive statistics was performed.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	44	42	43	35
Units: ELISA Unit/milliliter (EU/mL)				
geometric mean (confidence interval 95%)	6533 (4341 to 9831)	7812 (5120 to 11920)	5881 (3719 to 9302)	9273 (5596 to 15366)

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	39	41		
Units: ELISA Unit/milliliter (EU/mL)				
geometric mean (confidence interval 95%)	6758 (4344 to 10513)	6069 (3780 to 9745)		

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, 3, 4, 5 and 6: Serological Response to Vaccination Measured by S-ELISA at 14 Days Post-dose 2

End point title	Groups 1, 2, 3, 4, 5 and 6: Serological Response to Vaccination Measured by S-ELISA at 14 Days Post-dose 2[20]

End point description:

Serological response to vaccination were measured by S-ELISA (ELISA Units/mL [EU/mL]) at 14 days post-dose 2. For Vaccine-specific responses, a subject was defined as a responder if: 1. a baseline sample value of <=LLOQ and a postbaseline sample strictly greater than the LLOQ; or 2. a baseline sample value strictly >LLOQ and a postbaseline sample value representing an at least 4-fold increase from the baseline sample value, was reported. The PPI set included all randomized and vaccinated subjects for whom immunogenicity data were available excluding data from subjects with major protocol deviations expected to impact the immunogenicity outcomes. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints.

End point type	Primary

End point timeframe:

14 days post-dose 2 on Day 57 (Day 71)

Notes:

[20] - 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 formal statistical testing was done. Only descriptive statistics was performed.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	38	31	38	30
Units: EU/mL				
geometric mean (confidence interval 95%)	4923 (3329 to 7282)	4679 (2748 to 7967)	4043 (2480 to 6590)	8958 (6333 to 12671)

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	32	37		
Units: EU/mL				
geometric mean (confidence interval 95%)	8716 (6577 to 11550)	6522 (4461 to 9533)		

Statistical analyses

No statistical analyses for this end point

Primary: Groups 4, 5 and 6: Number of Subjects with AESI (Including MIS-C)

End point title	Groups 4, 5 and 6: Number of Subjects with AESI (Including MIS-C)[21][22]

End point description:

Number of subjects with AESI (including MIS-C) were reported. Thrombotic events (suspected deep vessel venous or arterial thrombotic events); Thrombocytopenia (platelet count below 150,000/µL) and MIS-C (a subject <21 years with fever, evidence of inflammation, and evidence of clinically severe illness requiring hospitalization, with multisystem (≥2) organ involvement [cardiac, renal, respiratory, hematologic, gastrointestinal, dermatologic or neurological]; & No alternative diagnoses; & Positive for

coronavirus disease 2019 [COVID-19] infection by RT-PCR, serology, or antigen test; or COVID-19 exposure within 4 weeks prior to symptoms) were considered as AESIs in this study. Safety analyses set included all subjects with at least one vaccine administration documented. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints.

End point type	Primary

End point timeframe:

From first vaccination up to Day 240 (6 months after second vaccination on Day 57)

Notes:

[21] - 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 formal statistical testing was done. Only descriptive statistics was performed.

[22] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Data for rest of the arms were reported as separate end points.

End point values	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	46	47	47	
Units: subjects	0	0	0	

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, 3, 4, 5 and 6: Serological Response to Vaccination Measured by Virus Neutralization Assay (VNA) Titers 28 Days Post-dose 1

End point title	Groups 1, 2, 3, 4, 5 and 6: Serological Response to Vaccination Measured by Virus Neutralization Assay (VNA) Titers 28 Days Post-dose 1[23]

End point description:

Serological response to vaccination were measured by VNA titers 28 days post-dose 1. For Vaccine-specific responses, a subject was defined as a responder if: 1. a baseline sample value of <=LLOQ and a postbaseline sample strictly greater than the LLOQ; or 2. a baseline sample value strictly >LLOQ and a postbaseline sample value representing an at least 4-fold increase from the baseline sample value, was reported. The PPI set included all randomized and vaccinated subjects for whom immunogenicity data were available excluding data from subjects with major protocol deviations expected to impact the immunogenicity outcomes. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints.

End point type	Primary

End point timeframe:

28 days post-dose 1 (Day 29)

Notes:

[23] - 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 formal statistical testing was done. Only descriptive statistics was performed.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	43	42	42	35
Units: 50% inhibitory concentration (IC50)				
geometric mean (confidence interval 95%)	1325 (792 to 2216)	1754 (988 to 3113)	1392 (806 to 2403)	2038 (1065 to 3897)

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	39	41		
Units: 50% inhibitory concentration (IC50)				
geometric mean (confidence interval 95%)	1878 (1089 to 3240)	1455 (864 to 2449)		

Statistical analyses

No statistical analyses for this end point

Primary: Groups 1, 2, 3, 4, 5 and 6: Serological Response to Vaccination Measured by VNA Titers 14 Days Post-dose 2

End point title	Groups 1, 2, 3, 4, 5 and 6: Serological Response to Vaccination Measured by VNA Titers 14 Days Post-dose 2[24]

End point description:

Serological response to vaccination will be measured by VNA titers 14 days post-dose 2. For Vaccine-specific responses, a subject was defined as a responder if: 1. a baseline sample value <=LLOQ and a postbaseline sample strictly greater than the LLOQ; or 2. a baseline sample value strictly >LLOQ and a postbaseline sample value representing an at least 4-fold increase from the baseline sample value, was reported. The PPI set included all randomized and vaccinated subjects for whom immunogenicity data were available excluding data from subjects with major protocol deviations expected to impact the immunogenicity outcomes. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints.

End point type	Primary

End point timeframe:

14 days post-dose 2 on Day 57 (Day 71)

Notes:

[24] - 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 formal statistical testing was done. Only descriptive statistics was performed.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	38	31	38	30
Units: subjects				
geometric mean (confidence interval 95%)	1187 (698 to 2018)	1094 (517 to 2315)	864 (471 to 1583)	2386 (1453 to 3917)

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	32	37		
Units: subjects				
geometric mean (confidence interval 95%)	2670 (1816 to 3925)	1742 (1064 to 2852)		

Statistical analyses

No statistical analyses for this end point

Secondary: Groups 1, 2, 3, 4, 5 and 6: Serological Response to Vaccination Measured by Binding Antibody Titers to Severe Acute Respiratory Syndrome Coronavirus(-2) (SARS-CoV-2) or individual SARS-CoV-2 S Proteins as Assessed by ELISA

End point title	Groups 1, 2, 3, 4, 5 and 6: Serological Response to Vaccination Measured by Binding Antibody Titers to Severe Acute Respiratory Syndrome Coronavirus(-2) (SARS-CoV-2) or individual SARS-CoV-2 S Proteins as Assessed by ELISA

End point description:

Serological response to vaccination measured by binding antibody titers to SARS-CoV-2 or individual SARS-CoV-2 S proteins as assessed by ELISA were reported. For Vaccine-specific responses, a subject was defined as responder if: 1. a baseline sample value of <=LLOQ and a postbaseline sample strictly greater than the LLOQ; or 2. a baseline sample value strictly >LLOQ and a postbaseline sample value representing an at least 4-fold increase from the baseline sample value, was reported. The PPI set included all randomized and vaccinated subjects for whom immunogenicity data were available excluding data from subjects with major protocol deviations expected to impact the immunogenicity outcomes. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints. Here "99999" signifies that the data were not collected or analyzed for the specified category.

End point type	Secondary

End point timeframe:

Groups 1-3: Days 1, 29, 57, 71, 184, 198, and 366; Groups 4-6: Days 1, 29, 57, 71 and 240

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	51	50	51	49
Units: EU/mL				
geometric mean (confidence interval 95%)				
Day 1 (n=51, 50, 51, 49, 48, 49)	255 (148 to 438)	297 (156 to 563)	338 (189 to 605)	256 (144 to 455)
Day 29 (n=44, 42, 43, 35, 39, 41)	6533 (4341 to 9831)	7812 (5120 to 11920)	5881 (3719 to 9302)	9273 (5596 to 15366)
Day 57 (n=41, 40, 41, 33, 38, 38)	5629 (3896 to 8133)	7450 (4934 to 11249)	4554 (2922 to 7099)	7034 (4542 to 10891)
Day 71 (n=38, 31, 38, 30, 32, 37)	4923 (3329 to 7282)	4679 (2748 to 7967)	4043 (2480 to 6590)	8958 (6333 to 12671)
Day 184 (n=19, 11, 19, 0, 0, 0)	4131 (2431 to 7021)	4765 (2048 to 11087)	3861 (1826 to 8165)	99999 (9999 to 99999)
Day 198 (n=27, 21, 31, 0, 0, 0)	6782 (5230 to 8795)	7656 (5317 to 11026)	10506 (8227 to 13417)	99999 (9999 to 99999)
Day 240 (n=0, 0, 0, 14, 16, 22)	99999 (9999 to 99999)	99999 (9999 to 99999)	99999 (9999 to 99999)	4994 (3144 to 7932)
Day 366 (25, 18, 31, 0, 0, 0)	5087 (3809 to 6793)	4934 (2856 to 8526)	6585 (4907 to 8838)	99999 (9999 to 99999)

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625*10^10		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	49	49		
Units: EU/mL				
geometric mean (confidence interval 95%)				
Day 1 (n=51, 50, 51, 49, 48, 49)	200 (117 to 341)	282 (151 to 528)		
Day 29 (n=44, 42, 43, 35, 39, 41)	6758 (4344 to 10513)	6069 (3780 to 9745)		
Day 57 (n=41, 40, 41, 33, 38, 38)	5650 (3798 to 8405)	4817 (3009 to 7710)		
Day 71 (n=38, 31, 38, 30, 32, 37)	8716 (6577 to 11550)	6522 (4461 to 9533)		
Day 184 (n=19, 11, 19, 0, 0, 0)	99999 (9999 to 99999)	99999 (9999 to 99999)		
Day 198 (n=27, 21, 31, 0, 0, 0)	99999 (9999 to 99999)	99999 (9999 to 99999)		
Day 240 (n=0, 0, 0, 14, 16, 22)	5338 (3039 to 9377)	3877 (2390 to 6289)		
Day 366 (25, 18, 31, 0, 0, 0)	99999 (9999 to 99999)	99999 (9999 to 99999)		

Statistical analyses

No statistical analyses for this end point

Secondary: Groups 1, 2, 3, 4, 5 and 6: Serological Response to Vaccination Measured by Neutralizing Antibody Titers to SARS-CoV-2

End point title	Groups 1, 2, 3, 4, 5 and 6: Serological Response to Vaccination Measured by Neutralizing Antibody Titers to SARS-CoV-2

End point description:

Serological response to vaccination measured by neutralizing antibody titers to SARS-CoV-2 (VNA) were reported. For Vaccine-specific responses, a subject was defined as a responder if: 1. a baseline sample value of <=LLOQ and a postbaseline sample strictly greater than the LLOQ; or 2. a baseline sample value strictly >LLOQ and a postbaseline sample value representing an at least 4-fold increase from the baseline sample value, was reported. The PPI set included all randomized and vaccinated subjects for whom immunogenicity data were available excluding data from subjects with major protocol deviations expected to impact the immunogenicity outcomes. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number analyzed) signifies number of subjects analyzed at specified timepoints. Here "99999" signifies that the data were not collected or analyzed for the specified arm. "-99" signifies a value <LLOQ.

End point type	Secondary

End point timeframe:

Groups 1-3: Days 1, 29, 57, 71, 184, 198 and 366; Groups 4-6: Days 1, 29, 57, 71 and 240

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	Group 4: Ad26.COV2.S 2.5*10^10 vp + Ad26.COV2.S
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	51	50	50	48
Units: IC50				
geometric mean (confidence interval 95%)				
Day 1 (n=51, 50, 50, 48, 48, 49))	105 (-99 to 163)	149 (88 to 250)	114 (-99 to 186)	112 (-99 to 184)
Day 29 (n= 43, 42, 42, 35, 39, 41)	1325 (792 to 2216)	1754 (988 to 3113)	1392 (806 to 2403)	2038 (1065 to 3897)
Day 57 (n=41, 40, 41, 33, 38, 38)	1197 (710 to 2020)	1743 (992 to 3065)	993 (570 to 1730)	1662 (923 to 2992)
Day 71 (n= 38, 31, 38, 30, 32, 37)	1187 (698 to 2018)	1094 (517 to 2315)	864 (471 to 1583)	2386 (1453 to 3917)
Day 184 (n=19, 11, 19, 0, 0, 0)	1358 (773 to 2386)	1702 (462 to 6273)	860 (326 to 2267)	99999 (-99999 to 99999)
Day 198 (n=27, 21, 31, 0, 0, 0)	2496 (1760 to 3539)	2547 (1223 to 5303)	4083 (3006 to 5547)	99999 (-99999 to 99999)
Day 240 (n= 0, 0, 0, 14, 16, 22)	99999 (-99999 to 99999)	99999 (-99999 to 99999)	99999 (-99999 to 99999)	1867 (944 to 3692)
Day 366 (n=25,18, 31, 0, 0, 0)	1809 (1231 to 2656)	1783 (691 to 4599)	2274 (1521 to 3401)	99999 (-99999 to 99999)

End point values	Group 5: Ad26.COV2.S 1.25*10^10 vp + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 vp+Ad26.COV2.S 0.625		

		*10^10 vp		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	48	49		
Units: IC50				
geometric mean (confidence interval 95%)				
Day 1 (n=51, 50, 50, 48, 48, 49))	83 (-99 to 121)	127 (77 to 210)		
Day 29 (n= 43, 42, 42, 35, 39, 41)	1878 (1089 to 3240)	1455 (864 to 2449)		
Day 57 (n=41, 40, 41, 33, 38, 38)	1434 (847 to 2427)	1188 (649 to 2173)		
Day 71 (n= 38, 31, 38, 30, 32, 37)	2670 (1816 to 3925)	1742 (1064 to 2852)		
Day 184 (n=19, 11, 19, 0, 0, 0)	99999 (-99999 to 99999)	99999 (-99999 to 99999)		
Day 198 (n=27, 21, 31, 0, 0, 0)	99999 (-99999 to 99999)	99999 (-99999 to 99999)		
Day 240 (n= 0, 0, 0, 14, 16, 22)	1900 (1035 to 3489)	1134 (548 to 2347)		
Day 366 (n=25,18, 31, 0, 0, 0)	99999 (-99999 to 99999)	99999 (-99999 to 99999)		

Statistical analyses

No statistical analyses for this end point

Secondary: Groups 1, 2 and 3: Number of Subjects with Solicited Local AEs for 7 Days Post-booster Vaccination

End point title	Groups 1, 2 and 3: Number of Subjects with Solicited Local AEs for 7 Days Post-booster Vaccination[25]

End point description:

Solicited local AEs are pre-defined local (at the injection site) AEs for which subjects are specifically asked and which are noted by subjects in their reactogenicity diary for 7 days post booster vaccination. Solicited local AEs are: injection site pain/tenderness, erythema, swelling at the vaccination. Safety analyses set included all subjects with at least one vaccine administration documented. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints. Data for this outcome measure was not planned to be collected and analyzed for groups 4, 5 and 6 as pre-specified in protocol.

End point type	Secondary

End point timeframe:

From first vaccination on Day 1 up to Day 191 (7 days after booster vaccination on Day 184)

Notes:

[25] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Data for this outcome measure was not planned to be collected and analyzed for groups 4, 5 and 6 as pre-specified in protocol.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	51	48	49	
Units: subjects	19	16	17	

Statistical analyses

No statistical analyses for this end point

Secondary: Groups 1, 2 and 3: Number of Subjects with Solicited Systemic AEs for 7 Days Post-booster Vaccination

End point title	Groups 1, 2 and 3: Number of Subjects with Solicited Systemic AEs for 7 Days Post-booster Vaccination[26]

End point description:

Subjects were instructed on how to note signs and symptoms in the diary on a daily basis for 7 days post-booster vaccination (day of vaccination and the subsequent 7 days) for the following solicited systemic AEs: fatigue, headache, nausea, and myalgia and pyrexia. Safety analyses set included all subjects with at least one vaccine administration documented. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints. Data for this outcome measure was not planned to be collected and analyzed for groups 4, 5 and 6 as pre-specified in protocol.

End point type	Secondary

End point timeframe:

From first vaccination on Day 1 up to Day 191 (7 days after booster vaccination on Day 184)

Notes:

[26] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Data for this outcome measure was not planned to be collected and analyzed for groups 4, 5 and 6 as pre-specified in protocol.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	51	48	49	
Units: Subjects	16	14	15	

Statistical analyses

No statistical analyses for this end point

Secondary: Groups 1, 2 and 3: Number of Subjects with Unsolicited AEs for 28 Days Post-booster Vaccination

End point title	Groups 1, 2 and 3: Number of Subjects with Unsolicited AEs for 28 Days Post-booster Vaccination[27]

End point description:

Unsolicited AEs were all AEs for which the subject was not specifically questioned in the subject's

reactogenicity diary. Safety analyses set included all subjects with at least one vaccine administration documented. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints. Data for this outcome measure was not planned to be collected and analyzed for groups 4, 5 and 6 as pre-specified in protocol.

End point type	Secondary

End point timeframe:

From first vaccination on Day 1 up to Day 212 (28 days after booster Vaccination on Day 184)

Notes:

[27] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Data for this outcome measure was not planned to be collected and analyzed for groups 4, 5 and 6 as pre-specified in protocol.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	51	48	49	
Units: subjects	6	8	10	

Statistical analyses

No statistical analyses for this end point

Secondary: Groups 1, 2 and 3: Number of Subjects with MAAEs Until 6 Months Post-booster Vaccination

End point title	Groups 1, 2 and 3: Number of Subjects with MAAEs Until 6 Months Post-booster Vaccination[28]

End point description:

MAAEs were defined as AEs with medically-attended visits including hospital, emergency room, urgent care clinic, or other visits to or from medical personnel for any reason. Routine study visits were not be considered medically-attended visits. New onset of chronic diseases were collected as part of the MAAEs. Safety analyses set included all subjects with at least one vaccine administration documented. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints. Data for this outcome measure was not planned to be collected and analyzed for groups 4, 5 and 6 as pre-specified in protocol.

End point type	Secondary

End point timeframe:

From first vaccination on Day 1 up to Day 366 (6 months after booster vaccination on Day 184)

Notes:

[28] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Data for this outcome measure was not planned to be collected and analyzed for groups 4, 5 and 6 as pre-specified in protocol.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	51	48	49	
Units: subjects	1	2	2	

Statistical analyses

No statistical analyses for this end point

Secondary: Groups 1, 2 and 3: Serological Response to Post-booster Vaccination Measured by Binding (S-ELISA) Antibody Titers

End point title	Groups 1, 2 and 3: Serological Response to Post-booster Vaccination Measured by Binding (S-ELISA) Antibody Titers[29]

End point description:

Serological response to post-booster vaccination measured by binding (S-ELISA and/or equivalent assay) antibody titers were reported. For Vaccine-specific responses, a subject was defined as a responder if: 1. a baseline sample value of <=LLOQ and a postbaseline sample strictly greater than the LLOQ; or 2. a baseline sample value strictly >LLOQ and a postbaseline sample value representing an at least 4-fold increase from the baseline sample value, was reported. PPI set: All randomized and vaccinated participants with available immunogenicity data excluding data from participants with major protocol deviations expected to impact the immunogenicity outcomes. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints. Data for this outcome measure was not planned to be collected and analyzed for groups 4, 5 and 6 as pre-specified in protocol.

End point type	Secondary

End point timeframe:

Days 184, 198 and 366

Notes:

[29] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Data for this outcome measure was not planned to be collected and analyzed for groups 4, 5 and 6 as pre-specified in protocol.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	27	21	31	
Units: EU/mL				
geometric mean (confidence interval 95%)				
Day 184 (n=19, 11, 19)	4131 (2431 to 7021)	4765 (2048 to 11087)	3861 (1826 to 8165)	
Day 198 (n=27, 21, 31)	6782 (5230 to 8795)	7656 (5317 to 11026)	10506 (8227 to 13417)	
Day 366 (n=25, 18, 31)	5087 (3809 to 6793)	4934 (2856 to 8526)	6585 (4907 to 8838)	

Statistical analyses

No statistical analyses for this end point

Secondary: Groups 1, 2 and 3: Serological Response to Post-booster Vaccination Measured by Neutralizing (VNA) Antibody Titers

End point title	Groups 1, 2 and 3: Serological Response to Post-booster Vaccination Measured by Neutralizing (VNA) Antibody Titers[30]

End point description:

Serological response to post-booster vaccination measured by neutralizing (VNA) antibody titers were reported. For Vaccine-specific responses, a subject was defined as a responder if: 1. a baseline sample value of <=LLOQ and a postbaseline sample strictly greater than the LLOQ; or 2. a baseline sample value strictly >LLOQ and a postbaseline sample value representing an at least 4-fold increase from the baseline sample value, was reported. PPI set: All randomized and vaccinated participants with available immunogenicity data excluding data from participants with major protocol deviations expected to impact the immunogenicity outcomes. Here "N" signifies the number of subjects that were evaluable for this endpoint and "n"(number of subjects analyzed) signifies number of subjects analyzed at specified timepoints. Data for this outcome measure was not planned to be collected and analyzed for groups 4, 5 and 6 as pre-specified in protocol.

End point type	Secondary

End point timeframe:

Days 184, 198 and 366

Notes:

[30] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Data for this outcome measure was not planned to be collected and analyzed for groups 4, 5 and 6 as pre-specified in protocol.

End point values	Group 1: Ad26.COV2.S 2.5*10^10 vp + Placebo	Group 2: Ad26.COV2.S 1.25*10^10 vp + Placebo	Group 3: Ad26.COV2.S 0.625*10^10 vp + Placebo	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	27	21	31	
Units: IC50				
geometric mean (confidence interval 95%)				
Day 184 (n=19, 11, 19)	1358 (773 to 2386)	1702 (462 to 6273)	860 (326 to 2267)	
Day 198 (n=27, 21, 31)	2496 (1760 to 3539)	2547 (1223 to 5303)	4083 (3006 to 5547)	
Day 366 (n=25, 18, 31)	1809 (1231 to 2656)	1783 (691 to 4599)	2274 (1521 to 3401)	

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Groups 1 to 3:From first vaccination on Day 1 until 6 months after booster vaccination on Day 184 (end of study) (up to Day 366)
Groups 4 to 6:From first vaccination on Day 1 until 6 months after second vaccination on Day 57 (end of study) (up to Day 240)

Adverse event reporting additional description:

Safety analyses included all subjects with at least one vaccine administration documented.

Assessment type	Non-systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	25.0

Reporting groups

Reporting group title	Group 1: Ad26.COV2.S 2.5*10^10 + Placebo

Reporting group description:

Subjects received single dose of Ad26.COV.S 2.5*10^10 vp as IM injection on Day 1 and placebo matching to Ad26.COV.S 2.5*10^10 vp on Day 57. Subjects were unblinded to the primary vaccination regimen at 6 months after the first vaccination. Subjects received booster vaccination with Ad26.COV.S 2.5*10^10 vp on Day 184.

Reporting group title	Group 2: Ad26.COV2.S 1.25*10^10 + Placebo

Reporting group description:

Participants received single dose of Ad26.COV2.S 1.25*10^10 vp as IM injection on Day 1 and placebo matching to Ad26.COV2.S 1.25*10^10 vp on Day 57. Participants were unblinded to the primary vaccination regimen at 6 months after the first vaccination. Participants received booster vaccination with Ad26.COV.S 2.5*10^10 vp on Day 184.

Reporting group title	Group 3: Ad26.COV2.S 0.625*10^10 + Placebo

Reporting group description:

Participants received single dose of Ad26.COV2.S 0.625*10^10 virus particle (vp) as intramuscular (IM) injection on Day 1 and placebo matching to Ad26.COV2.S 0.625*10^10 vp on Day 57. Participants were unblinded to the primary vaccination regimen at 6 months after the first vaccination. Participants received booster vaccination with Ad26.COV.S 2.5*10^10 vp on Day 184.

Reporting group title	Group 4: Ad26.COV2.S 2.5*10^10 + Ad26.COV2.S 2.5*10^10

Reporting group description:

Participants received 2-doses of Ad26.COV2.S 2.5*10^10 vp as IM injection on Day 1 and Day 57. Participants were unblinded to the primary vaccination regimen at 6 months after the first vaccination.

Reporting group title	Group 5: Ad26.COV2.S 1.25*10^10 + Ad26.COV2.S 1.25*10^10

Reporting group description:

Participants received 2-doses of Ad26.COV2.S 1.25*10^10 vp as IM injection on Day 1 and Day 57. Participants were unblinded to the primary vaccination regimen at 6 months after the first vaccination

Reporting group title	Group 6: Ad26.COV2.S 0.625*10^10 + Ad26.COV2.S 0.625*10^10

Reporting group description:

Participants received 2-doses of Ad26.COV2.S 0.625*10^10 vp as IM injection on Day 1 and Day 57. Participants were unblinded to the primary vaccination regimen at 6 months after the first vaccination.

Serious adverse events	Group 1: Ad26.COV2.S 2.5*10^10 +	Group 2: Ad26.COV2.S 1.25*10^10 +	Group 3: Ad26.COV2.S 0.625*10^10 +
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 51 (1.96%)	1 / 50 (2.00%)	0 / 51 (0.00%)

number of deaths (all causes)	0	1	0
number of deaths resulting from adverse events			
Injury, poisoning and procedural complications			
Femur Fracture			
subjects affected / exposed	1 / 51 (1.96%)	0 / 50 (0.00%)	0 / 51 (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
Intentional Overdose			
subjects affected / exposed	0 / 51 (0.00%)	1 / 50 (2.00%)	0 / 51 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 1	0 / 0
Surgical and medical procedures			
Vaginal Cyst Excision			
subjects affected / exposed	0 / 51 (0.00%)	0 / 50 (0.00%)	0 / 51 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Group 4: Ad26.COV2.S 2.5*10^10 + Ad26.COV2.S	Group 5: Ad26.COV2.S 1.25*10^10 + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 + Ad26.COV2.S 0.625*10^10
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 49 (0.00%)	1 / 49 (2.04%)	0 / 49 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events			
Injury, poisoning and procedural complications			
Femur Fracture			
subjects affected / exposed	0 / 49 (0.00%)	0 / 49 (0.00%)	0 / 49 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Intentional Overdose			
subjects affected / exposed	0 / 49 (0.00%)	0 / 49 (0.00%)	0 / 49 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Surgical and medical procedures			
Vaginal Cyst Excision			

subjects affected / exposed	0 / 49 (0.00%)	1 / 49 (2.04%)	0 / 49 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	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	Group 1: Ad26.COV2.S 2.5*10^10 +	Group 2: Ad26.COV2.S 1.25*10^10 +	Group 3: Ad26.COV2.S 0.625*10^10 +
Total subjects affected by non-serious adverse events			
subjects affected / exposed	35 / 51 (68.63%)	32 / 50 (64.00%)	34 / 51 (66.67%)
Nervous system disorders			
Headache(Solicited)			
subjects affected / exposed	16 / 51 (31.37%)	20 / 50 (40.00%)	17 / 51 (33.33%)
occurrences (all)	28	26	20
General disorders and administration site conditions			
Vaccination Site Swelling(Solicited)			
subjects affected / exposed	5 / 51 (9.80%)	7 / 50 (14.00%)	3 / 51 (5.88%)
occurrences (all)	7	8	3
Vaccination Site Pain(Solicited)			
subjects affected / exposed	23 / 51 (45.10%)	22 / 50 (44.00%)	24 / 51 (47.06%)
occurrences (all)	38	39	34
Vaccination Site Erythema(Solicited)			
subjects affected / exposed	4 / 51 (7.84%)	5 / 50 (10.00%)	2 / 51 (3.92%)
occurrences (all)	4	8	2
Fatigue(Solicited)			
subjects affected / exposed	20 / 51 (39.22%)	11 / 50 (22.00%)	12 / 51 (23.53%)
occurrences (all)	26	17	14
Pyrexia(Solicited)			
subjects affected / exposed	10 / 51 (19.61%)	2 / 50 (4.00%)	7 / 51 (13.73%)
occurrences (all)	12	4	7
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	3 / 51 (5.88%)	2 / 50 (4.00%)	1 / 51 (1.96%)
occurrences (all)	3	2	1
Nausea(Solicited)			

subjects affected / exposed	8 / 51 (15.69%)	5 / 50 (10.00%)	11 / 51 (21.57%)
occurrences (all)	8	6	13
Respiratory, thoracic and mediastinal disorders			
Cough			
subjects affected / exposed	2 / 51 (3.92%)	1 / 50 (2.00%)	1 / 51 (1.96%)
occurrences (all)	2	1	1
Musculoskeletal and connective tissue disorders			
Myalgia(Solicited)			
subjects affected / exposed	18 / 51 (35.29%)	11 / 50 (22.00%)	14 / 51 (27.45%)
occurrences (all)	21	15	18
Infections and infestations			
Gastroenteritis			
subjects affected / exposed	2 / 51 (3.92%)	3 / 50 (6.00%)	0 / 51 (0.00%)
occurrences (all)	2	4	0
Covid-19			
subjects affected / exposed	7 / 51 (13.73%)	4 / 50 (8.00%)	4 / 51 (7.84%)
occurrences (all)	7	4	4
Upper Respiratory Tract Infection			
subjects affected / exposed	2 / 51 (3.92%)	5 / 50 (10.00%)	2 / 51 (3.92%)
occurrences (all)	2	7	2
Rhinitis			
subjects affected / exposed	3 / 51 (5.88%)	1 / 50 (2.00%)	1 / 51 (1.96%)
occurrences (all)	3	1	1
Influenza			
subjects affected / exposed	5 / 51 (9.80%)	3 / 50 (6.00%)	6 / 51 (11.76%)
occurrences (all)	6	3	10

Non-serious adverse events	Group 4: Ad26.COV2.S 2.5*10^10 + Ad26.COV2.S	Group 5: Ad26.COV2.S 1.25*10^10 + Ad26.COV2.S	Group 6: Ad26.COV2.S 0.625*10^10 + Ad26.COV2.S 0.625*10^10
Total subjects affected by non-serious adverse events			
subjects affected / exposed	26 / 49 (53.06%)	29 / 49 (59.18%)	35 / 49 (71.43%)
Nervous system disorders			
Headache(Solicited)			
subjects affected / exposed	12 / 49 (24.49%)	17 / 49 (34.69%)	16 / 49 (32.65%)
occurrences (all)	17	21	18
General disorders and administration			

site conditions			
Vaccination Site Swelling(Solicited)			
subjects affected / exposed	4 / 49 (8.16%)	2 / 49 (4.08%)	4 / 49 (8.16%)
occurrences (all)	4	2	5
Vaccination Site Pain(Solicited)			
subjects affected / exposed	19 / 49 (38.78%)	15 / 49 (30.61%)	19 / 49 (38.78%)
occurrences (all)	26	18	22
Vaccination Site Erythema(Solicited)			
subjects affected / exposed	3 / 49 (6.12%)	4 / 49 (8.16%)	3 / 49 (6.12%)
occurrences (all)	3	4	3
Fatigue(Solicited)			
subjects affected / exposed	16 / 49 (32.65%)	10 / 49 (20.41%)	14 / 49 (28.57%)
occurrences (all)	21	11	16
Pyrexia(Solicited)			
subjects affected / exposed	7 / 49 (14.29%)	2 / 49 (4.08%)	5 / 49 (10.20%)
occurrences (all)	7	2	5
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	0 / 49 (0.00%)	0 / 49 (0.00%)	2 / 49 (4.08%)
occurrences (all)	0	0	2
Nausea(Solicited)			
subjects affected / exposed	6 / 49 (12.24%)	7 / 49 (14.29%)	2 / 49 (4.08%)
occurrences (all)	7	8	3
Respiratory, thoracic and mediastinal disorders			
Cough			
subjects affected / exposed	1 / 49 (2.04%)	3 / 49 (6.12%)	0 / 49 (0.00%)
occurrences (all)	1	3	0
Musculoskeletal and connective tissue disorders			
Myalgia(Solicited)			
subjects affected / exposed	13 / 49 (26.53%)	9 / 49 (18.37%)	5 / 49 (10.20%)
occurrences (all)	16	11	6
Infections and infestations			
Gastroenteritis			
subjects affected / exposed	1 / 49 (2.04%)	2 / 49 (4.08%)	3 / 49 (6.12%)
occurrences (all)	1	2	3
Covid-19			

subjects affected / exposed	4 / 49 (8.16%)	7 / 49 (14.29%)	6 / 49 (12.24%)
occurrences (all)	4	7	6
Upper Respiratory Tract Infection			
subjects affected / exposed	0 / 49 (0.00%)	0 / 49 (0.00%)	4 / 49 (8.16%)
occurrences (all)	0	0	6
Rhinitis			
subjects affected / exposed	0 / 49 (0.00%)	1 / 49 (2.04%)	1 / 49 (2.04%)
occurrences (all)	0	1	1
Influenza			
subjects affected / exposed	2 / 49 (4.08%)	0 / 49 (0.00%)	5 / 49 (10.20%)
occurrences (all)	3	0	5

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
15 August 2022	The overall rationale for the protocol amendment 4 was the removal of Part 2 of this study. The Part 1 of Study VAC31518COV3006 has been ongoing since 29 September 2021. Since the start of enrollment, there has been a slower than desired participant enrollment rate mainly due to the success of the national vaccination programs in the countries where Part 1 is being conducted and a high number of participants being seropositive for severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) at screening/randomization. Thus, the current design of Part 2 in vaccine naïve participants is no longer feasible nor relevant and will, therefore, be removed from this study. However, Part 1 will continue as planned and the results may yield a preferred dose to be used in potential future studies.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported