Clinical trial results:
Safety and Immunogenicity of a Pneumococcal Conjugate Vaccine when Administered Concomitantly with Routine Pediatric Vaccines in Healthy Toddlers and Infants

Summary

EudraCT number	2021-002146-33
Trial protocol	Outside EU/EEA
Global end of trial date	10 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	PSK00008

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT04398706
WHO universal trial number (UTN)	U1111-1238-1638

Notes:

Sponsors

Sponsor organisation name	Sanofi Pasteur Inc
Sponsor organisation address	Discovery Drive, Swiftwater, Pennsylvania, United States, 18370-0187
Public contact	Trial Transparency Team, Sanofi Pasteur, Contact-US@sanofi.com
Scientific contact	Trial Transparency Team, Sanofi Pasteur, Contact-US@sanofi.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	Yes
EMA paediatric investigation plan number(s)	EMEA-002780-PIP02-20
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	13 October 2023
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	10 August 2023
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

- To assess the safety profile of each SP0202 formulation and Prevnar 13 in toddlers and infants (after each and any injection).
- To assess the immune response (serotype specific IgG concentration) of the SP0202 formulations and Prevnar 13 1 month after the administration of one dose in toddlers (Groups 1-4)
- To assess the immune response (serotype specific IgG concentration) of the SP0202 formulations and Prevnar 13 1 month after the administration of 3 doses in infants (Groups 5-8)
- To assess the immune response (serotype specific IgG concentration) of the SP0202 formulations and Prevnar 13 1 month after administration of a 4-dose schedule in infants (Groups 5-8)

Protection of trial subjects:

Vaccinations were performed by qualified and trained study personnel. Subjects with allergy to any of the vaccine components were not vaccinated. After vaccination, subjects were also kept under clinical observation for 30 minutes to ensure their safety. Appropriate medical equipment were also available on site in case of any immediate allergic reactions.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	22 May 2020
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	United States: 499
Country: Number of subjects enrolled	Honduras: 329
Country: Number of subjects enrolled	Canada: 24
Worldwide total number of subjects	852
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)	852

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

Subject disposition

Recruitment

Recruitment details:

The Stage I of study was conducted at 22 active centres in the US between 22 May 2020 and 10 March 2021. The Stage II of study was conducted at 35 active centres in the US, Canada and Honduras between 16 April 2021 and 24 February 2022.

Pre-assignment

Screening details:

A total of 140 subjects were randomised in Stage I and 712 subjects were randomised in Stage II of study.

Period 1

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

Arms

Are arms mutually exclusive?	Yes
Arm title	Stage I: Group 1 SP0202-IIb

Arm description:

Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received 1 dose of SP0202-IIb formulation, concomitantly administered with Pentacel.

Arm type	Experimental
Investigational medicinal product name	Pneumococcal Conjugate Vaccine
Investigational medicinal product code	SP0202
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use

Dosage and administration details:

Toddlers received 0.5 millilitre (mL) dose of SP0202-IIb vaccine.

Arm title	Stage I: Group 2 SP0202-VI

Arm description:

Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received 1 dose of SP0202-VI formulation, concomitantly administered with Pentacel.

Arm type	Experimental
Investigational medicinal product name	Pneumococcal Conjugate Vaccine
Investigational medicinal product code	SP0202
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use

Dosage and administration details:

Toddlers received 0.5 mL dose of SP0202-VI vaccine.

Arm title	Stage I: Group 3 SP0202-VII

Arm description:

Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received 1 dose of SP0202-VII formulation, concomitantly administered with Pentacel.

Arm type	Experimental

Investigational medicinal product name	Pneumococcal Conjugate Vaccine
Investigational medicinal product code	SP0202
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use

Dosage and administration details:

Toddlers received 0.5 mL dose of SP0202-VII vaccine.

Arm title	Stage I: Group 4 Prevnar 13

Arm description:

Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received another dose of Prevnar 13, concomitantly administered with Pentacel.

Arm type	Experimental
Investigational medicinal product name	Prevnar 13
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use

Dosage and administration details:

Toddlers received 0.5 mL dose of Prevnar 13 vaccine.

Arm title	Stage II: Group 5 SP0202-IIb

Arm description:

Infants aged 2 months received 3 doses of SP0202-IIb formulation at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age [that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII (measles, mumps, and rubella) and Varivax at 12 to 15 months of age].

Arm type	Experimental
Investigational medicinal product name	Pneumococcal Conjugate Vaccine
Investigational medicinal product code	SP0202
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use

Dosage and administration details:

Infants received 4 doses of 0.5 mL SP0202-IIb vaccine.

Arm title	Stage II: Group 6 SP0202-VI

Arm description:

Infants aged 2 months received 3 doses of SP0202-VI formulation at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).

Arm type	Experimental
Investigational medicinal product name	Pneumococcal Conjugate Vaccine
Investigational medicinal product code	SP0202
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use

Dosage and administration details:

Infants received 0.5 mL dose of SP0202-VI vaccine.

Arm title	Stage II: Group 7 SP0202-VII

Arm description:

Infants aged 2 months received 3 doses of SP0202-VII formulation at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).

Arm type	Experimental
Investigational medicinal product name	Pneumococcal Conjugate Vaccine
Investigational medicinal product code	SP0202
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use

Dosage and administration details:

Infants received 0.5 mL dose of SP0202-VII vaccine.

Arm title	Stage II: Group 8 Prevnar 13

Arm description:

Infants aged 2 months received 3 doses of Prevnar 13 at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).

Arm type	Experimental
Investigational medicinal product name	Prevnar 13
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use

Dosage and administration details:

Infants received 0.5 mL dose of Prevnar 13 vaccine.

Number of subjects in period 1	Stage I: Group 1 SP0202-IIb	Stage I: Group 2 SP0202-VI	Stage I: Group 3 SP0202-VII
Started	35	35	35
Completed	35	31	32
Not completed	0	4	3
Adverse event, non-fatal	-	-	-
Lost to follow-up	-	1	2
Withdrawal by parent/guardian	-	2	1
Protocol deviation	-	1	-

Number of subjects in period 1	Stage I: Group 4 Prevnar 13	Stage II: Group 5 SP0202-IIb	Stage II: Group 6 SP0202-VI
Started	35	179	178
Completed	32	148	147
Not completed	3	31	31
Adverse event, non-fatal	-	-	1
Lost to follow-up	1	6	3
Withdrawal by parent/guardian	2	19	23
Protocol deviation	-	6	4

Number of subjects in period 1	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13
Started	179	176
Completed	151	160
Not completed	28	16

Adverse event, non-fatal	1	-
Lost to follow-up	8	2
Withdrawal by parent/guardian	13	11
Protocol deviation	6	3

Baseline characteristics

Reporting groups	
Reporting group title	Stage I: Group 1 SP0202-IIb
Reporting group description:	
Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received 1 dose of SP0202-IIb formulation, concomitantly administered with Pentacel.	
Reporting group title	Stage I: Group 2 SP0202-VI
Reporting group description:	
Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received 1 dose of SP0202-VI formulation, concomitantly administered with Pentacel.	
Reporting group title	Stage I: Group 3 SP0202-VII
Reporting group description:	
Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received 1 dose of SP0202-VII formulation, concomitantly administered with Pentacel.	
Reporting group title	Stage I: Group 4 Prevnar 13
Reporting group description:	
Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received another dose of Prevnar 13, concomitantly administered with Pentacel.	
Reporting group title	Stage II: Group 5 SP0202-IIb
Reporting group description:	
Infants aged 2 months received 3 doses of SP0202-IIb formulation at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age [that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII (measles, mumps, and rubella) and Varivax at 12 to 15 months of age].	
Reporting group title	Stage II: Group 6 SP0202-VI
Reporting group description:	
Infants aged 2 months received 3 doses of SP0202-VI formulation at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).	
Reporting group title	Stage II: Group 7 SP0202-VII
Reporting group description:	
Infants aged 2 months received 3 doses of SP0202-VII formulation at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).	
Reporting group title	Stage II: Group 8 Prevnar 13
Reporting group description:	
Infants aged 2 months received 3 doses of Prevnar 13 at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).	

Reporting group values	Stage I: Group 1 SP0202-IIb	Stage I: Group 2 SP0202-VI	Stage I: Group 3 SP0202-VII
Number of subjects	35	35	35
Age categorical			
Units: Subjects			

Age continuous			
Units: years			
arithmetic mean	1.1	1.1	1.1
standard deviation	± 0.11	± 0.10	± 0.12

Gender categorical Units: Subjects			
Female	17	12	20
Male	18	22	15
Missing	0	1	0
Race Units: Subjects			
American Indian or Alaska Native	2	1	0
Asian	1	0	2
Black or African American	5	2	3
Native Hawaiian or Other Pacific Islander	1	0	0
White	24	28	29
Multiple	2	3	0
Not Reported	0	0	1
Unknown	0	0	0
Missing	0	1	0

Reporting group values	Stage I: Group 4 Prevnar 13	Stage II: Group 5 SP0202-IIb	Stage II: Group 6 SP0202-VI
Number of subjects	35	179	178
Age categorical Units: Subjects			
Age continuous Units: years			
arithmetic mean	1.2	0.2	0.2
standard deviation	± 0.11	± 0.03	± 0.03
Gender categorical Units: Subjects			
Female	17	93	94
Male	18	86	84
Missing	0	0	0
Race Units: Subjects			
American Indian or Alaska Native	2	26	26
Asian	2	1	0
Black or African American	6	10	17
Native Hawaiian or Other Pacific Islander	0	0	0
White	25	75	67
Multiple	0	64	67
Not Reported	0	2	0
Unknown	0	1	1
Missing	0	0	0

Reporting group values	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13	Total
Number of subjects	179	176	852
Age categorical Units: Subjects			

Age continuous Units: years			
arithmetic mean	0.2	0.2	
standard deviation	± 0.03	± 0.03	-
Gender categorical Units: Subjects			
Female	78	90	421
Male	101	86	430
Missing	0	0	1
Race Units: Subjects			
American Indian or Alaska Native	23	23	103
Asian	0	2	8
Black or African American	10	11	64
Native Hawaiian or Other Pacific Islander	0	0	1
White	79	80	407
Multiple	67	59	262
Not Reported	0	1	4
Unknown	0	0	2
Missing	0	0	1

End points

End points reporting groups

Reporting group title	Stage I: Group 1 SP0202-IIb
Reporting group description:	
Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received 1 dose of SP0202-IIb formulation, concomitantly administered with Pentacel.	
Reporting group title	Stage I: Group 2 SP0202-VI
Reporting group description:	
Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received 1 dose of SP0202-VI formulation, concomitantly administered with Pentacel.	
Reporting group title	Stage I: Group 3 SP0202-VII
Reporting group description:	
Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received 1 dose of SP0202-VII formulation, concomitantly administered with Pentacel.	
Reporting group title	Stage I: Group 4 Prevnar 13
Reporting group description:	
Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received another dose of Prevnar 13, concomitantly administered with Pentacel.	
Reporting group title	Stage II: Group 5 SP0202-IIb
Reporting group description:	
Infants aged 2 months received 3 doses of SP0202-IIb formulation at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age [that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII (measles, mumps, and rubella) and Varivax at 12 to 15 months of age].	
Reporting group title	Stage II: Group 6 SP0202-VI
Reporting group description:	
Infants aged 2 months received 3 doses of SP0202-VI formulation at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).	
Reporting group title	Stage II: Group 7 SP0202-VII
Reporting group description:	
Infants aged 2 months received 3 doses of SP0202-VII formulation at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).	
Reporting group title	Stage II: Group 8 Prevnar 13
Reporting group description:	
Infants aged 2 months received 3 doses of Prevnar 13 at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).	
Subject analysis set title	Stage II: Group 5 SP0202-IIb
Subject analysis set type	Safety analysis
Subject analysis set description:	
Infants aged 2 months were received 3 doses of SP0202-IIb formulation at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).	

Primary: Number of Subjects With Immediate Adverse Events (AEs)

End point title	Number of Subjects With Immediate Adverse Events (AEs)[1][2]
End point description:	
An AE was any untoward medical occurrence in a subject or in a clinical investigation subject administered a medicinal product and which did not necessarily have a causal relationship with this	

treatment. Immediate events were recorded to capture medically relevant unsolicited systemic AEs (including those related to the product administered) that occurred within the first 30 minutes after vaccination. An unsolicited AE was an observed AE that did not fulfill the conditions prelisted in the case report book (CRB) in terms of diagnosis and/or onset window post-vaccination and included both serious adverse events (SAEs) and non-serious unsolicited AEs. Analysis was performed on the Safety analysis set (SafAS) that included all subjects who received at least 1 dose of the study vaccines and had any safety data available.

End point type	Primary

End point timeframe:

Within 30 minutes post-vaccination

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: As the endpoint is descriptive in nature, no statistical analysis is provided.

[2] - 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: As the endpoint is descriptive in nature, no statistical analysis is provided.

End point values	Stage I: Group 1 SP0202-IIb	Stage I: Group 2 SP0202-VI	Stage I: Group 3 SP0202-VII	Stage I: Group 4 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	35	34	35	34
Units: subjects	0	0	0	0

End point values	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13	Stage II: Group 5 SP0202-IIb
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	178	176	176	180
Units: subjects	0	0	0	0

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With Solicited Injection Site Reactions

End point title	Number of Subjects With Solicited Injection Site Reactions[3][4]

End point description:

A solicited reaction was an “expected” adverse reaction (sign or symptom) observed and reported under the conditions (nature and onset) prelisted in the protocol and CRB and were considered to be related to the product administered. An injection site reaction was an adverse reaction at and around the injection site which were commonly inflammatory reactions. Solicited injection site reactions included tenderness, erythema and swelling around the injection site and were planned to be collected and reported for SP0202/Prevnar 13 for both toddlers and infants. Analysis was performed on SafAS. Here, 'number of subjects analysed' = subjects with available data for this outcome measure and 'n' = subjects with available data for each specified category.

End point type	Primary

End point timeframe:

Up to Day 7 post-vaccination

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: As the endpoint is descriptive in nature, no statistical analysis is provided.

[4] - 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: As the endpoint is descriptive in nature, no statistical analysis is provided.

End point values	Stage I: Group 1 SP0202-IIb	Stage I: Group 2 SP0202-VI	Stage I: Group 3 SP0202-VII	Stage I: Group 4 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	31	32	31	30
Units: subjects	21	18	21	13

End point values	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13	Stage II: Group 5 SP0202-IIb
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	170	168	171	168
Units: subjects	128	126	124	119

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With Solicited Systemic Reactions

End point title	Number of Subjects With Solicited Systemic Reactions[5][6]

End point description:

A solicited reaction was an "expected" adverse reaction (sign or symptom) observed and reported under the conditions (nature and onset) pre-listed in the protocol and CRB and considered as related to the product administered. Solicited systemic reactions included fever, vomiting, abnormal crying, drowsiness, appetite loss, and irritability. Reported AEs for each arm were presented as pre-specified in protocol. Analysis was performed on SafAS. Here, 'number of subjects analysed' = subjects with available data for this outcome measure.

End point type	Primary

End point timeframe:

Up to Day 7 post-vaccination

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: As the endpoint is descriptive in nature, no statistical analysis is provided.

[6] - 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: As the endpoint is descriptive in nature, no statistical analysis is provided.

End point values	Stage I: Group 1 SP0202-IIb	Stage I: Group 2 SP0202-VI	Stage I: Group 3 SP0202-VII	Stage I: Group 4 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	33	33	33	30
Units: subjects	25	23	27	24

End point values	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13	Stage II: Group 5 SP0202-IIb
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	169	168	171	168
Units: subjects	143	137	138	139

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With Unsolicited AEs

End point title	Number of Subjects With Unsolicited AEs[7][8]

End point description:

An AE was any untoward medical occurrence in a clinical investigation subject administered a medicinal product, and which did not necessarily have a causal relationship with this treatment. An unsolicited AE was an observed AE that did not fulfill the conditions prelisted in the CRB in terms of diagnosis and/or onset window post-vaccination. Unsolicited AEs included both SAEs and non-serious unsolicited AEs. Reported AEs for each arm were presented as pre-specified in protocol. Analysis was performed on SafAS.

End point type	Primary

End point timeframe:

Within 30 days post any vaccination

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: As the endpoint is descriptive in nature, no statistical analysis is provided.

[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: As the endpoint is descriptive in nature, no statistical analysis is provided.

End point values	Stage I: Group 1 SP0202-IIb	Stage I: Group 2 SP0202-VI	Stage I: Group 3 SP0202-VII	Stage I: Group 4 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	35	34	35	34
Units: subjects	7	3	4	6

End point values	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13	Stage II: Group 5 SP0202-IIb
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	178	176	176	180

Units: subjects	116	118	117	122

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With SAEs and Adverse Event of Special Interest (AESIs)

End point title	Number of Subjects With SAEs and Adverse Event of Special Interest (AESIs)[9][10]

End point description:

An SAE was any untoward medical occurrence that at any dose resulted in death, was life-threatening, required inpatient hospitalisation or prolongation of existing hospitalisation, resulted in persistent or significant disability/incapacity, was a congenital anomaly/birth defect, or was an important medical event. An AESI (serious or non-serious) was defined as one of scientific and medical concern specific to the Sponsor's product or program, for which ongoing monitoring and rapid communication by the Investigator to the Sponsor was appropriate. The following AE were captured as AESI throughout the study: Anaphylaxis defined as per the Brighton collaboration case definition, convulsions including febrile convulsions, hypotonic-hyporesponsive episode and apnea. Reported AEs for each arm were presented as pre-specified in protocol. Analysis was performed on SafAS.

End point type	Primary

End point timeframe:

From first dose vaccine administration (Day 1) until 6 months after the last dose administration, 490 days

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: As the endpoint is descriptive in nature, no statistical analysis is provided.

[10] - 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: As the endpoint is descriptive in nature, no statistical analysis is provided.

End point values	Stage I: Group 1 SP0202-IIb	Stage I: Group 2 SP0202-VI	Stage I: Group 3 SP0202-VII	Stage I: Group 4 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	35	34	35	34
Units: subjects				
Any SAEs	0	1	0	0
Any AESIs	1	0	0	0

End point values	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13	Stage II: Group 5 SP0202-IIb
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	178	176	176	180
Units: subjects				
Any SAEs	9	8	9	3
Any AESIs	1	1	0	1

Statistical analyses

No statistical analyses for this end point

Primary: For Toddlers: Serotype Specific Immunoglobulin G (IgG) Geometric Mean Concentrations (GMCs) for Each Pneumococcal Serotype at 30 Days Post-Dose

End point title	For Toddlers: Serotype Specific Immunoglobulin G (IgG) Geometric Mean Concentrations (GMCs) for Each Pneumococcal Serotype at 30 Days Post-Dose[11][12]

End point description:

The GMCs for serotype specific pneumococcal IgG antibodies were measured using pneumococcal capsular polysaccharide-electro-chemiluminescent assay (PnPS-ECL), a multiplexed serological assay which allows for the simultaneous quantification of human IgG against pneumococcal polysaccharide antigens. Results are based on Per protocol analysis set 1 (PPAS1) which was a subset of the Full analysis set (FAS)1 which is for toddlers. FAS1: Subset of randomised subjects to Groups 1 to 4 who received at least 1 dose of the study vaccine and had a valid post vaccination blood sample result [serotype specific IgG concentration or serotype specific opsonophagocytic activity (OPA) titer for at least 1 serotype, or titer/concentration for at least 1 antigen on the concomitant vaccines]. Here, 'n' = subjects with available data for each specified category.

End point type	Primary

End point timeframe:

Day 30

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: As the endpoint is descriptive in nature, no statistical analysis is provided.

[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: Only toddlers were analysed in this endpoint.

End point values	Stage I: Group 1 SP0202-IIb	Stage I: Group 2 SP0202-VI	Stage I: Group 3 SP0202-VII	Stage I: Group 4 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	25	26	27	29
Units: microgram/millilitre (mcg/mL)				
geometric mean (confidence interval 95%)				
Serotype 1 (n=25,26,27,29)	2.46 (1.59 to 3.82)	2.12 (1.40 to 3.21)	3.29 (2.55 to 4.24)	3.80 (2.76 to 5.24)
Serotype 3 (n=25,26,27,28)	0.766 (0.569 to 1.03)	0.973 (0.748 to 1.26)	1.16 (0.963 to 1.40)	0.835 (0.629 to 1.11)
Serotype 4 (n=25,26,27,29)	1.53 (1.07 to 2.19)	1.51 (1.10 to 2.08)	2.27 (1.58 to 3.27)	1.73 (1.32 to 2.25)
Serotype 5 (n=25,26,27,29)	2.44 (1.74 to 3.42)	2.38 (1.66 to 3.42)	2.80 (2.00 to 3.93)	2.69 (2.02 to 3.58)
Serotype 6A (n=25,26,27,29)	7.53 (5.48 to 10.4)	5.87 (4.20 to 8.20)	8.29 (6.51 to 10.6)	8.54 (6.44 to 11.3)
Serotype 6B (n=25,26,27,29)	5.21 (3.67 to 7.40)	4.16 (3.15 to 5.50)	7.11 (5.21 to 9.70)	5.77 (4.33 to 7.70)
Serotype 7F (n=25,26,27,29)	2.99 (2.32 to 3.86)	3.23 (2.37 to 4.41)	2.91 (2.23 to 3.80)	3.80 (3.06 to 4.73)

Serotype 9V (n=25,26,27,28)	3.25 (2.47 to 4.27)	2.99 (2.22 to 4.01)	5.27 (3.99 to 6.97)	3.13 (2.31 to 4.24)
Serotype 14 (n=25,26,27,29)	7.37 (5.39 to 10.1)	6.54 (4.62 to 9.27)	5.75 (4.48 to 7.38)	9.83 (7.65 to 12.6)
Serotype 18C (n=25,26,27,29)	1.80 (1.25 to 2.59)	2.23 (1.57 to 3.19)	2.19 (1.67 to 2.87)	2.53 (1.99 to 3.21)
Serotype 19A (n=25,26,27,29)	3.67 (2.56 to 5.26)	5.41 (3.62 to 8.08)	5.45 (4.17 to 7.11)	6.20 (4.83 to 7.96)
Serotype 19F (n=25,26,27,29)	3.88 (2.77 to 5.42)	4.12 (2.99 to 5.70)	5.79 (4.02 to 8.35)	6.50 (4.69 to 9.02)
Serotype 23F (n=25,26,27,29)	2.42 (1.71 to 3.43)	2.65 (1.98 to 3.55)	3.64 (2.75 to 4.82)	3.02 (2.11 to 4.32)
Serotype 8 (n=25,26,27,29)	6.86 (4.96 to 9.50)	4.91 (3.74 to 6.44)	7.11 (5.17 to 9.80)	0.235 (0.158 to 0.350)
Serotype 9N (n=25,26,27,29)	3.46 (2.21 to 5.43)	2.02 (1.43 to 2.84)	2.78 (2.04 to 3.79)	0.668 (0.437 to 1.02)
Serotype 10A (n=25,26,27,27)	1.84 (1.18 to 2.87)	1.05 (0.669 to 1.66)	1.48 (0.988 to 2.21)	0.244 (0.180 to 0.331)
Serotype 11A (n=25,26,27,29)	4.41 (3.25 to 5.99)	3.20 (2.48 to 4.13)	4.61 (3.34 to 6.35)	0.188 (0.144 to 0.247)
Serotype 12F (n=25,25,27,28)	0.767 (0.454 to 1.29)	0.778 (0.541 to 1.12)	0.907 (0.596 to 1.38)	0.094 (0.078 to 0.112)
Serotype 15B (n=25,26,27,29)	0.680 (0.447 to 1.03)	0.560 (0.370 to 0.848)	0.644 (0.425 to 0.974)	0.172 (0.122 to 0.241)
Serotype 22F (n=25,26,27,29)	4.43 (3.12 to 6.30)	4.26 (2.66 to 6.82)	5.20 (3.51 to 7.69)	0.178 (0.122 to 0.259)
Serotype 33F (n=25,26,27,27)	1.26 (0.694 to 2.29)	1.13 (0.771 to 1.65)	1.75 (1.09 to 2.79)	0.256 (0.189 to 0.345)

Statistical analyses

No statistical analyses for this end point

Primary: For Infants: Percentage of Subjects With Serotype Specific IgG Concentration >=0.35 mcg/mL 30 Days Post-Dose 3

End point title	For Infants: Percentage of Subjects With Serotype Specific IgG Concentration >=0.35 mcg/mL 30 Days Post-Dose 3[13][14]

End point description:

Percentage of infants with serotype specific IgG concentration >=0.35 mcg/mL for each pneumococcal serotype included in the SP0202 formulations were measured using ECL, a multiplexed serological assay which allows for the simultaneous quantification of human IgG against pneumococcal polysaccharide antigens. Results are based on Per protocol analysis set 2 (PPAS2) which is a subset of the Full analysis set 2 (FAS2) for infants. FAS2: subset of randomised subjects to Groups 5 to 8 who received at least 1 dose of the study vaccine in the primary series and had a valid post-primary series vaccination blood sample result (serotype specific IgG concentration or serotype specific OPA titer for at least 1 serotype, or titer/concentration for at least 1 antigen on the concomitant vaccines). Here, 'n' = subjects with available data for each specified category.

End point type	Primary

End point timeframe:

Day 150

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: As the endpoint is descriptive in nature, no statistical analysis is provided.

[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: Only infants were analysed in this endpoint.

End point values	Stage II: Group 5 SP0202-IIb	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	133	122	125	132
Units: percentage of subjects				
number (confidence interval 95%)				
Serotype 1 (n = 133, 122, 125, 132)	97.7 (93.5 to 99.5)	96.7 (91.8 to 99.1)	95.2 (89.8 to 98.2)	97.0 (92.4 to 99.2)
Serotype 3 (n = 133, 122, 125, 132)	94.7 (89.5 to 97.9)	95.1 (89.6 to 98.2)	97.6 (93.1 to 99.5)	81.8 (74.2 to 88.0)
Serotype 4 (n = 133, 122, 125, 132)	97.0 (92.5 to 99.2)	95.9 (90.7 to 98.7)	97.6 (93.1 to 99.5)	97.7 (93.5 to 99.5)
Serotype 5 (n = 133, 122, 125, 132)	98.5 (94.7 to 99.8)	96.7 (91.8 to 99.1)	93.6 (87.8 to 97.2)	97.0 (92.4 to 99.2)
Serotype 6A (n = 133, 122, 125, 132)	99.2 (95.9 to 100)	96.7 (91.8 to 99.1)	99.2 (95.6 to 100)	99.2 (95.9 to 100)
Serotype 6B (n = 133, 122, 125, 132)	85.7 (78.6 to 91.2)	81.1 (73.1 to 87.7)	84.0 (76.4 to 89.9)	97.0 (92.4 to 99.2)
Serotype 7F (n = 133, 122, 125, 132)	100 (97.3 to 100)	100 (97.0 to 100)	99.2 (95.6 to 100)	100 (97.2 to 100)
Serotype 9V (n = 133, 122, 125, 132)	96.2 (91.4 to 98.8)	89.3 (82.5 to 94.2)	94.4 (88.8 to 97.7)	99.2 (95.9 to 100)
Serotype 14 (n = 133, 122, 125, 131)	99.2 (95.9 to 100)	99.2 (95.5 to 100)	97.6 (93.1 to 99.5)	96.9 (92.4 to 99.2)
Serotype 18C (n = 133, 122, 125, 132)	97.0 (92.5 to 99.2)	97.5 (93.0 to 99.5)	97.6 (93.1 to 99.5)	96.2 (91.4 to 98.8)
Serotype 19A (n = 133, 122, 125, 132)	94.0 (88.5 to 97.4)	93.4 (87.5 to 97.1)	96.0 (90.9 to 98.7)	97.0 (92.4 to 99.2)
Serotype 19F (n = 133, 122, 125, 131)	100 (97.3 to 100)	99.2 (95.5 to 100)	96.8 (92.0 to 99.1)	99.2 (95.8 to 100)
Serotype 23F (n = 133, 122, 125, 132)	97.7 (93.5 to 99.5)	96.7 (91.8 to 99.1)	96.0 (90.9 to 98.7)	93.9 (88.4 to 97.3)
Serotype 8 (n = 133, 122, 125, 131)	99.2 (95.9 to 100)	100 (97.0 to 100)	99.2 (95.6 to 100)	9.2 (4.8 to 15.5)
Serotype 9N (n = 133, 122, 125, 132)	99.2 (95.9 to 100)	98.4 (94.2 to 99.8)	98.4 (94.3 to 99.8)	65.9 (57.2 to 73.9)
Serotype 10A (n = 133, 122, 120, 132)	93.2 (87.5 to 96.9)	92.6 (86.5 to 96.6)	96.0 (90.9 to 98.7)	3.8 (1.2 to 8.6)
Serotype 11A (n = 133, 122, 125, 132)	98.5 (94.7 to 99.8)	100 (97.0 to 100)	97.6 (93.1 to 99.5)	7.6 (3.7 to 13.5)
Serotype 12F (n = 133, 122, 125, 132)	97.7 (93.5 to 99.5)	93.4 (87.5 to 97.1)	94.4 (88.8 to 97.7)	0 (0 to 2.8)
Serotype 15B (n = 133, 122, 125, 131)	98.5 (94.7 to 99.8)	95.9 (90.7 to 98.7)	97.6 (93.1 to 99.5)	6.9 (3.2 to 12.6)
Serotype 22F (n = 133, 122, 125, 132)	100 (97.3 to 100)	97.5 (93.0 to 99.5)	97.6 (93.1 to 99.5)	3.0 (0.8 to 7.6)
Serotype 33F (n = 133, 122, 125, 131)	91.7 (85.7 to 95.8)	89.3 (82.5 to 94.2)	92.8 (86.8 to 96.7)	3.8 (1.3 to 8.7)

Statistical analyses

No statistical analyses for this end point

Primary: For Infants: Serotype Specific IgG GMCs for Each Pneumococcal Serotype at 30 Days Post-Dose 3

End point title	For Infants: Serotype Specific IgG GMCs for Each

	Pneumococcal Serotype at 30 Days Post-Dose 3[15][16]

End point description:

The GMCs for serotype-specific pneumococcal IgG antibodies were measured using PnPS-ECL, a multiplexed serological assay which allows for the simultaneous quantification of human IgG against pneumococcal polysaccharide antigens. Results are based on Per protocol analysis set 2 (PPAS2) which is a subset of the Full analysis set 2 (FAS2) for infants. FAS2: Subset of randomised subjects to Groups 5 to 8 who received at least 1 dose of the study vaccine in the primary series and had a valid post-primary series vaccination blood sample result (serotype specific IgG concentration or serotype specific OPA titer for at least 1 serotype, or titer/concentration for at least 1 antigen on the concomitant vaccines). Here, 'n' = subjects with available data for each specified category.

End point type	Primary

End point timeframe:

Day 150

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: As the endpoint is descriptive in nature, no statistical analysis is provided.

[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: Only infants were analysed in this endpoint.

End point values	Stage II: Group 5 SP0202-IIb	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	133	122	125	132
Units: mcg/mL				
geometric mean (confidence interval 95%)				
Serotype 1 (n = 133, 122, 125, 132)	1.91 (1.66 to 2.19)	2.21 (1.88 to 2.61)	1.97 (1.66 to 2.34)	2.81 (2.39 to 3.30)
Serotype 3 (n = 133, 122, 125, 132)	0.800 (0.721 to 0.887)	1.14 (1.01 to 1.27)	1.17 (1.04 to 1.31)	0.676 (0.598 to 0.764)
Serotype 4 (n = 133, 122, 125, 132)	0.900 (0.819 to 0.988)	0.880 (0.798 to 0.971)	1.06 (0.951 to 1.18)	1.63 (1.45 to 1.83)
Serotype 5 (n = 133, 122, 125, 132)	3.62 (3.02 to 4.35)	3.26 (2.70 to 3.95)	3.00 (2.42 to 3.71)	1.88 (1.63 to 2.17)
Serotype 6A (n = 133, 122, 125, 132)	3.41 (2.93 to 3.96)	2.77 (2.33 to 3.30)	3.26 (2.78 to 3.82)	4.53 (3.93 to 5.21)
Serotype 6B (n =133, 122, 125, 132)	1.95 (1.52 to 2.49)	1.64 (1.22 to 2.20)	1.97 (1.51 to 2.59)	2.87 (2.36 to 3.48)
Serotype 7F (n = 133, 122, 125, 132)	3.88 (3.47 to 4.34)	3.68 (3.27 to 4.14)	3.45 (3.05 to 3.90)	3.93 (3.53 to 4.36)
Serotype 9V (n = 133, 122, 125, 132)	1.35 (1.18 to 1.55)	1.16 (0.989 to 1.37)	1.49 (1.27 to 1.74)	2.41 (2.12 to 2.74)
Serotype 14 (n = 133, 122, 125, 131)	7.49 (6.36 to 8.81)	6.83 (5.85 to 7.98)	6.84 (5.73 to 8.17)	7.41 (6.20 to 8.86)
Serotype 18C (n = 133, 122, 125, 132)	1.67 (1.49 to 1.87)	1.56 (1.391 to 1.76)	1.46 (1.31 to 1.63)	1.92 (1.67 to 2.20)
Serotype 19A (n = 133, 122, 125, 132)	1.86 (1.57 to 2.20)	1.74 (1.43 to 2.11)	1.86 (1.57 to 2.21)	2.17 (1.85 to 2.54)
Serotype 19F (n = 133, 122, 125, 131)	3.32 (2.98 to 3.70)	3.31 (2.93 to 3.75)	2.95 (2.51 to 3.46)	3.70 (3.23 to 4.24)
Serotype 23F (n = 133, 122, 125, 132)	2.69 (2.31 to 3.13)	1.96 (1.69 to 2.28)	2.05 (1.73 to 2.43)	1.71 (1.44 to 2.04)
Serotype 8 (n = 133, 122, 125, 131)	3.27 (2.92 to 3.66)	2.87 (2.55 to 3.22)	3.08 (2.70 to 3.51)	0.105 (0.093 to 0.119)
Serotype 9N (n = 133, 122, 125, 132)	2.53 (2.26 to 2.84)	2.39 (2.10 to 2.71)	2.42 (2.12 to 2.77)	0.510 (0.424 to 0.612)

Serotype 10A (n = 133, 122, 125, 132)	2.86 (2.29 to 3.57)	2.84 (2.24 to 3.59)	3.26 (2.68 to 3.97)	0.098 (0.089 to 0.108)
Serotype 11A (n = 133, 122, 125, 132)	2.52 (2.21 to 2.88)	2.51 (2.21 to 2.85)	2.32 (1.99 to 2.71)	0.108 (0.095 to 0.123)
Serotype 12F (n = 133, 122, 125, 132)	1.93 (1.68 to 2.23)	1.56 (1.33 to 1.82)	1.54 (1.31 to 1.81)	0.076 (0.075 to 0.078)
Serotype 15B (n = 133, 122, 125, 131)	7.88 (6.54 to 9.48)	7.161 (5.73 to 8.95)	6.84 (5.54 to 8.45)	0.097 (0.087 to 0.107)
Serotype 22F (n = 133, 122, 125, 132)	12.3 (10.8 to 14.1)	10.4 (8.59 to 12.6)	9.27 (7.58 to 11.3)	0.092 (0.083 to 0.103)
Serotype 33F (n = 133, 122, 125, 131)	2.67 (2.11 to 3.37)	2.61 (2.05 to 3.32)	2.57 (2.09 to 3.16)	0.093 (0.085 to 0.101)

Statistical analyses

No statistical analyses for this end point

Primary: For Infants: Serotype Specific IgG GMCs for Each Pneumococcal Serotype at 30 Days Post-Dose 4

End point title	For Infants: Serotype Specific IgG GMCs for Each Pneumococcal Serotype at 30 Days Post-Dose 4[17][18]

End point description:

The GMCs for serotype specific pneumococcal IgG antibodies were measured using pneumococcal capsular polysaccharide-electro-chemiluminescent assay (PnPS-ECL), a multiplexed serological assay which allows for the simultaneous quantification of human IgG against pneumococcal polysaccharide antigens. Results are based on Per protocol analysis set 3 (PPAS3) which is a subset of the Full analysis set 3 (FAS3) for infants. FAS3: Subset of randomised subjects to Groups 5 to 8 who received at least 1 dose of the study vaccine at the time of booster and had a valid post-booster vaccination blood sample result (serotype specific IgG concentration or serotype specific OPA titer for at least 1 serotype, or titer/concentration for at least 1 antigen on the concomitant vaccines). Here, 'n' = subjects with available data for each specified category.

End point type	Primary

End point timeframe:

Day 330

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: As the endpoint is descriptive in nature, no statistical analysis is provided.

[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: Only infants were analysed in this endpoint.

End point values	Stage II: Group 5 SP0202-IIb	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	122	108	101	128
Units: mcg/mL				
geometric mean (confidence interval 95%)				
Serotype 1 (n = 122, 108, 101, 128)	3.16 (2.68 to 3.73)	3.59 (3.02 to 4.26)	3.44 (2.87 to 4.12)	3.89 (3.35 to 4.50)
Serotype 3 (n = 122, 108, 101, 127)	0.755 (0.675 to 0.844)	1.07 (0.949 to 1.21)	1.03 (0.922 to 1.16)	0.961 (0.843 to 1.09)
Serotype 4 (n = 122, 108, 101, 128)	1.37 (1.18 to 1.59)	1.25 (1.08 to 1.45)	1.75 (1.49 to 2.05)	2.41 (2.09 to 2.77)

Serotype 5 (n = 122, 108, 101, 128)	7.56 (6.24 to 9.18)	6.46 (5.25 to 7.95)	6.63 (5.32 to 8.24)	3.07 (2.67 to 3.54)
Serotype 6A (n = 122, 108, 101, 128)	9.44 (8.01 to 11.1)	8.08 (6.93 to 9.43)	7.80 (6.50 to 9.36)	10.8 (9.36 to 12.4)
Serotype 6B (n = 122, 108, 100, 128)	8.77 (7.14 to 10.8)	8.36 (6.88 to 10.2)	7.96 (6.63 to 9.57)	8.54 (7.46 to 9.78)
Serotype 7F (n = 122, 108, 101, 128)	4.42 (3.93 to 4.97)	4.19 (3.63 to 4.85)	3.76 (3.33 to 4.24)	5.41 (4.80 to 6.09)
Serotype 9V (n = 122, 108, 101, 128)	2.20 (1.89 to 2.57)	2.06 (1.78 to 2.38)	2.57 (2.20 to 3.01)	4.32 (3.77 to 4.95)
Serotype 14 (n = 122, 108, 101, 128)	6.94 (5.93 to 8.11)	6.77 (5.62 to 8.14)	7.70 (6.58 to 9.00)	8.73 (7.34 to 10.4)
Serotype 18C (n = 122, 108, 101, 128)	1.79 (1.58 to 2.02)	1.66 (1.46 to 1.90)	1.55 (1.37 to 1.77)	2.81 (2.46 to 3.21)
Serotype 19A (n = 122, 108, 101, 128)	6.92 (5.79 to 8.28)	7.36 (6.12 to 8.84)	7.72 (6.37 to 9.36)	7.38 (6.28 to 8.67)
Serotype 19F (n = 122, 108, 100, 128)	6.64 (5.75 to 7.67)	7.48 (6.18 to 9.06)	6.68 (5.62 to 7.94)	7.03 (6.05 to 8.16)
Serotype 23F (n = 122, 107, 101, 128)	3.78 (3.19 to 4.49)	2.90 (2.46 to 3.42)	2.99 (2.50 to 3.57)	3.54 (3.02 to 4.16)
Serotype 8 (n = 122, 108, 101, 128)	4.64 (3.94 to 5.46)	4.36 (3.74 to 5.08)	4.26 (3.56 to 5.10)	0.238 (0.196 to 0.289)
Serotype 9N (n = 121, 108, 101, 128)	4.16 (3.60 to 4.79)	4.23 (3.72 to 4.80)	3.80 (3.18 to 4.54)	0.953 (0.773 to 1.18)
Serotype 10A (n = 122, 108, 101, 128)	5.67 (4.71 to 6.83)	5.70 (4.76 to 6.83)	4.78 (3.96 to 5.78)	0.160 (0.137 to 0.187)
Serotype 11A (n = 122, 108, 101, 128)	3.66 (3.17 to 4.21)	3.92 (3.36 to 4.57)	3.22 (2.69 to 3.85)	0.154 (0.128 to 0.186)
Serotype 12F (n = 122, 108, 101, 128)	2.68 (2.30 to 3.13)	2.25 (1.94 to 2.61)	2.04 (1.73 to 2.41)	0.080 (0.076 to 0.085)
Serotype 15B (n = 122, 108, 101, 126)	19.6 (16.5 to 23.2)	17.3 (14.2 to 21.2)	15.7 (12.6 to 19.5)	0.114 (0.097 to 0.134)
Serotype 22F (n = 122, 108, 100, 128)	24.5 (21.1 to 28.3)	21.3 (17.8 to 25.6)	20.6 (16.8 to 25.2)	0.173 (0.144 to 0.206)
Serotype 33F (n = 122, 108, 101, 128)	4.74 (4.07 to 5.52)	4.83 (4.13 to 5.65)	4.62 (3.89 to 5.49)	0.158 (0.134 to 0.186)

Statistical analyses

No statistical analyses for this end point

Secondary: For Toddlers: Serotype Specific OPA Geometric Mean Titers (GMTs) for Each Pneumococcal Serotype 30 Days Post-Dose

End point title	For Toddlers: Serotype Specific OPA Geometric Mean Titers (GMTs) for Each Pneumococcal Serotype 30 Days Post-Dose[19]

End point description:

The GMs for serotype specific OPA titers were measured using multiplex opsonophagocytic assay (MOPA) which is used to evaluate the opsonophagocytic index (50% killing) of pneumococcal anti-capsular polysaccharide antibodies in human serum samples following vaccination. Results are based on PPAS1 which is a subset of the FAS1 for toddlers. Here, 'number of subjects analysed' = subjects with available data for this outcome measure and 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Day 30

Notes:

[19] - 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: Only toddlers were analysed in this endpoint.

End point values	Stage I: Group 1 SP0202-IIb	Stage I: Group 2 SP0202-VI	Stage I: Group 3 SP0202-VII	Stage I: Group 4 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	24	24	23	25
Units: 1/dilution (1/dil)				
geometric mean (confidence interval 95%)				
Serotype 1 (n = 24, 24, 23, 25)	138 (62.1 to 306)	94.2 (49.9 to 178)	177 (92.3 to 339)	247 (140 to 434)
Serotype 3 (n = 24, 22, 22, 25)	272 (204 to 363)	314 (229 to 431)	393 (287 to 537)	216 (160 to 292)
Serotype 4 (n = 24, 23, 23, 25)	3467 (2296 to 5234)	2862 (2027 to 4041)	5420 (3366 to 8725)	2975 (1981 to 4466)
Serotype 5 (n = 24, 23, 22, 25)	1287 (736 to 2252)	1333 (867 to 2050)	1397 (817 to 2389)	1307 (820 to 2082)
Serotype 6A (n = 24, 21, 22, 25)	4623 (3110 to 6871)	6083 (4341 to 8523)	7232 (5071 to 10315)	7553 (5386 to 10592)
Serotype 6B (n = 24, 23, 23, 25)	3027 (1935 to 4737)	3542 (2348 to 5342)	5171 (3369 to 7935)	4679 (3132 to 6992)
Serotype 7F (n = 24, 24, 23, 25)	8449 (5127 to 13924)	7640 (4974 to 11734)	6284 (4099 to 9634)	10443 (6580 to 16575)
Serotype 9V (n = 24, 22, 22, 24)	3612 (2492 to 5236)	3254 (2121 to 4991)	4720 (2911 to 7654)	4057 (2778 to 5926)
Serotype 14 (n = 24, 24, 22, 25)	3598 (2195 to 5898)	3881 (2534 to 5943)	3191 (2045 to 4979)	2828 (1948 to 4107)
Serotype 18C (n = 24, 22, 23, 25)	1490 (921 to 2411)	1760 (1176 to 2634)	1722 (1233 to 2404)	2424 (1558 to 3771)
Serotype 19A (n = 24, 22, 23, 24)	3082 (2115 to 4493)	3174 (2302 to 4377)	3004 (2121 to 4256)	5354 (3343 to 8577)
Serotype 19F (n = 24, 23, 22, 25)	1194 (838 to 1701)	1806 (1207 to 2702)	1569 (955 to 2576)	2554 (1818 to 3588)
Serotype 23F (n = 24, 23, 22, 25)	5451 (3431 to 8662)	7457 (5131 to 10838)	5179 (3303 to 8121)	9264 (5738 to 14957)
Serotype 8 (n = 24, 23, 23, 25)	4244 (2705 to 6658)	7003 (5065 to 9681)	7989 (5076 to 12576)	222 (120 to 412)
Serotype 9N (n = 24, 23, 23, 25)	11562 (9510 to 14057)	8391 (6117 to 11511)	12115 (8129 to 18054)	2061 (1445 to 2940)
Serotype 10A (n = 24, 23, 23, 24)	3582 (2518 to 5096)	3615 (2706 to 4829)	4001 (2768 to 5782)	10.0 (4.07 to 24.7)
Serotype 11A (n = 24, 24, 23, 24)	611 (378 to 988)	686 (349 to 1345)	661 (311 to 1408)	4.14 (3.86 to 4.44)
Serotype 12F (n = 24, 21, 21, 25)	6767 (4628 to 9895)	7391 (4704 to 11615)	7955 (4793 to 13205)	5.27 (3.28 to 8.46)
Serotype 15B (n = 21, 19, 21, 24)	1087 (402 to 2941)	1346 (496 to 3658)	1476 (467 to 4671)	37.7 (20.3 to 69.8)
Serotype 22F (n = 22, 24, 22, 25)	4106 (2963 to 5690)	3352 (2354 to 4773)	4443 (2858 to 6906)	69.0 (24.3 to 196)
Serotype 33F (n = 24, 24, 23, 25)	39691 (27999 to 56266)	30399 (18394 to 50238)	35326 (24106 to 51770)	2689 (1702 to 4249)

Statistical analyses

No statistical analyses for this end point

Secondary: For Infants: Serotype Specific OPA GMTs for Each Pneumococcal Serotype 30 Days Post-Dose 3

End point title	For Infants: Serotype Specific OPA GMTs for Each Pneumococcal Serotype 30 Days Post-Dose 3[20]

End point description:

The GMs for serotype specific OPA titers were measured using multiplex opsonophagocytic assay (MOPA) which is used to evaluate the opsonophagocytic index (50% killing) of pneumococcal anti-capsular polysaccharide antibodies in human serum samples following vaccination. Results are based on PPPAS2-OPA subset which is a subset of the FAS for infants. Here, 'number of subjects analysed' = subjects with available data for this outcome measure 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Day 150

Notes:

[20] - 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: Only infants were analysed in this endpoint.

End point values	Stage II: Group 5 SP0202-IIb	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	89	85	83	95
Units: 1/dil				
geometric mean (confidence interval 95%)				
Serotype 1 (n = 89, 85, 83, 95)	73.6 (53.4 to 101)	81.7 (59.1 to 113)	66.4 (46.7 to 94.5)	114 (86.4 to 151)
Serotype 3 (n = 89, 85, 82, 93)	170 (146 to 197)	218 (180 to 266)	260 (226 to 300)	178 (147 to 215)
Serotype 4 (n = 87, 85, 83, 95)	703 (586 to 843)	616 (492 to 771)	1154 (934 to 1425)	1789 (1489 to 2151)
Serotype 5 (n = 89, 85, 83, 95)	602 (469 to 771)	492 (372 to 652)	495 (370 to 662)	569 (450 to 719)
Serotype 6A (n = 89, 85, 83, 95)	2456 (2032 to 2969)	2223 (1743 to 2834)	2664 (2187 to 3245)	2799 (2307 to 3395)
Serotype 6B (n = 89, 85, 83, 95)	1436 (1008 to 2045)	1041 (677 to 1602)	1885 (1384 to 2567)	2472 (1934 to 3160)
Serotype 7F (n = 89, 85, 83, 95)	5964 (4989 to 7130)	5449 (4536 to 6545)	5889 (4980 to 6963)	5252 (4521 to 6102)
Serotype 9V (n = 89, 85, 81, 95)	898 (659 to 1224)	700 (483 to 1014)	1136 (866 to 1492)	1319 (1040 to 1672)
Serotype 14 (n = 89, 85, 83, 95)	1959 (1580 to 2429)	1767 (1391 to 2244)	2293 (1858 to 2829)	1920 (1574 to 2344)
Serotype 18C (n = 89, 85, 83, 95)	866 (731 to 1026)	819 (668 to 1003)	804 (660 to 979)	1000 (804 to 1245)
Serotype 19A (n = 89, 85, 83, 95)	640 (521 to 788)	512 (384 to 684)	778 (630 to 962)	1130 (959 to 1332)
Serotype 19F (n = 89, 85, 83, 95)	533 (422 to 674)	591 (451 to 774)	629 (461 to 860)	613 (489 to 768)
Serotype 23F (n = 89, 85, 83, 93)	2654 (2157 to 3265)	1967 (1500 to 2580)	2279 (1770 to 2934)	4299 (3536 to 5227)
Serotype 8 (n = 89, 85, 83, 95)	1486 (1239 to 1782)	1440 (1237 to 1677)	1612 (1378 to 1886)	133 (89.9 to 196)
Serotype 9N (n = 89, 85, 83, 94)	4261 (3534 to 5138)	4994 (4248 to 5870)	5257 (4150 to 6661)	811 (585 to 1126)

Serotype 10A (n = 89, 85, 83, 94)	2306 (1539 to 3453)	2722 (1875 to 3951)	3251 (2501 to 4225)	9.42 (6.33 to 14.0)
Serotype 11A (n = 88, 85, 81, 94)	52.6 (36.7 to 75.3)	64.9 (44.2 to 95.3)	76.6 (52.6 to 112)	5.91 (4.62 to 7.54)
Serotype 12F (n = 89, 85, 83, 94)	2182 (1764 to 2700)	2179 (1798 to 2640)	2334 (1836 to 2967)	5.31 (4.15 to 6.80)
Serotype 15B (n = 86, 85, 81, 93)	6686 (5281 to 8466)	5859 (4218 to 8139)	5220 (3829 to 7116)	28.1 (22.8 to 34.7)
Serotype 22F (n = 89, 85, 83, 95)	5227 (4421 to 6181)	4657 (3802 to 5706)	4617 (3725 to 5723)	16.1 (12.5 to 20.7)
Serotype 33F (n = 89, 83, 83, 90)	10070 (7198 to 14088)	11179 (8604 to 14524)	11900 (8552 to 16559)	311 (181 to 535)

Statistical analyses

No statistical analyses for this end point

Secondary: For Infants: Serotype Specific OPA GMTs for Each Pneumococcal Serotype 30 Days Post-Dose 4

End point title	For Infants: Serotype Specific OPA GMTs for Each Pneumococcal Serotype 30 Days Post-Dose 4[21]

End point description:

The GMs for serotype specific OPA titers were measured using multiplex opsonophagocytic assay (MOPA) which is used to evaluate the opsonophagocytic index (50% killing) of pneumococcal anti-capsular polysaccharide antibodies in human serum samples following vaccination. Results are based on PPAS3-OPA subset which is a subset of the FAS3 for infants. Here, 'number of subjects analysed' = subjects with available data for this outcome measure and 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Day 330

Notes:

[21] - 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: Only infants were analysed in this endpoint.

End point values	Stage II: Group 5 SP0202-IIb	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	82	73	70	92
Units: 1/dil				
geometric mean (confidence interval 95%)				
Serotype 1 (n = 82, 73, 69, 92)	407 (295 to 561)	355 (255 to 495)	320 (211 to 486)	318 (251 to 403)
Serotype 3 (n = 82, 70, 69, 87)	274 (230 to 328)	308 (244 to 390)	376 (314 to 450)	348 (294 to 412)
Serotype 4 (n = 81, 72, 70, 85)	3754 (3002 to 4694)	2536 (1915 to 3359)	5556 (4318 to 7150)	6028 (4801 to 7570)
Serotype 5 (n = 82, 72, 68, 92)	2348 (1884 to 2926)	1787 (1365 to 2339)	2131 (1626 to 2794)	1396 (1119 to 1740)
Serotype 6A (n = 82, 72, 69, 90)	5153 (4338 to 6119)	4786 (3929 to 5829)	4433 (3434 to 5722)	6862 (5741 to 8202)
Serotype 6B (n = 81, 72, 70, 91)	3899 (3019 to 5037)	3305 (2614 to 4178)	3638 (2756 to 4802)	7092 (5699 to 8825)

Serotype 7F (n = 82, 72, 69, 90)	10234 (8469 to 12368)	8643 (7263 to 10285)	9232 (7448 to 11444)	13971 (11575 to 16863)
Serotype 9V (n = 80, 71, 69, 86)	3044 (2424 to 3823)	2641 (2137 to 3263)	2956 (2363 to 3698)	4364 (3459 to 5505)
Serotype 14 (n = 82, 73, 70, 92)	3415 (2785 to 4188)	3098 (2527 to 3798)	4190 (3397 to 5168)	3378 (2559 to 4459)
Serotype 18C (n = 82, 72, 68, 92)	1891 (1565 to 2285)	1422 (1110 to 1823)	1368 (1092 to 1713)	2821 (2342 to 3399)
Serotype 19A (n = 80, 70, 67, 82)	3808 (3057 to 4743)	3086 (2422 to 3933)	3580 (2806 to 4566)	7535 (6068 to 9357)
Serotype 19F (n = 81, 71, 69, 88)	2071 (1730 to 2481)	1821 (1313 to 2527)	1654 (1173 to 2332)	2249 (1750 to 2889)
Serotype 23F (n = 80, 71, 67, 87)	5444 (4211 to 7037)	4444 (3644 to 5418)	4047 (3019 to 5424)	18569 (14765 to 23352)
Serotype 8 (n = 82, 73, 70, 92)	4559 (3753 to 5537)	4229 (3527 to 5070)	4916 (3751 to 6443)	773 (616 to 970)
Serotype 9N (n = 81, 71, 70, 90)	9479 (7967 to 11277)	8565 (7485 to 9800)	10257 (8771 to 11995)	3043 (2370 to 3906)
Serotype 10A (n = 82, 73, 70, 81)	4278 (3125 to 5856)	4797 (3722 to 6184)	4768 (3358 to 6770)	46.6 (23.9 to 90.9)
Serotype 11A (n = 82, 73, 66, 85)	433 (310 to 604)	390 (253 to 603)	550 (372 to 812)	8.11 (5.45 to 12.1)
Serotype 12F (n = 81, 69, 69, 75)	4520 (3743 to 5459)	4757 (3800 to 5956)	5030 (3785 to 6685)	7.92 (5.26 to 12.0)
Serotype 15B (n = 78, 72, 67, 82)	14756 (11612 to 18750)	13136 (9623 to 17932)	12799 (9111 to 17981)	55.2 (36.7 to 83.0)
Serotype 22F (n = 79, 71, 63, 80)	20372 (15640 to 26536)	16063 (12306 to 20967)	21319 (15648 to 29045)	65.7 (37.7 to 114)
Serotype 33F (n = 81, 70, 66, 90)	26134 (20845 to 32766)	21202 (17071 to 26332)	32376 (25782 to 40657)	3224 (2388 to 4353)

Statistical analyses

No statistical analyses for this end point

Secondary: For Infants: GMC of Anti-Rotavirus Serum Immunoglobulin A (IgA) Antibodies 30 Days Post-Dose 3

End point title	For Infants: GMC of Anti-Rotavirus Serum Immunoglobulin A (IgA) Antibodies 30 Days Post-Dose 3[22]

End point description:

Anti-rotavirus IgA antibodies in human serum were measured by enzyme linked immunosorbent assay (ELISA). A reference standard assayed on each plate was used to calculate the amount of specific anti-rotavirus IgA antibody in the units assigned by the reference standard (U/mL of serum). Results are based on PPAS2 which is a subset of the FAS2 for infants. Here, 'number of subjects analysed' = subjects with available data for this outcome measure.

End point type	Secondary

End point timeframe:

Day 150

Notes:

[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: Only infants were analysed in this endpoint.

End point values	Stage II: Group 5 SP0202-IIb	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	119	105	110	120
Units: Units (U)/mL				
geometric mean (confidence interval 95%)	407 (303 to 545)	390 (283 to 537)	494 (369 to 661)	393 (277 to 560)

Statistical analyses

No statistical analyses for this end point

Secondary: For Infants: Percentage of Subjects With Antibody Responses to Diphtheria, Tetanus and Polyribosylribitol Phosphate Antigens 30 Days Post-Dose 3

End point title	For Infants: Percentage of Subjects With Antibody Responses to Diphtheria, Tetanus and Polyribosylribitol Phosphate Antigens 30 Days Post-Dose 3[23]

End point description:

Percentage of subjects with toxoid concentration >=0.10 mcg/mL for diphtheria and tetanus and >=0.15 mcg/mL for PRP are presented. Anti-diphtheria and anti-tetanus concentrations were measured using electro-chemiluminescence assay (ECL) and anti-PRP concentrations were measured using a Farr-type radioimmunoassay. Results are based on PPAS2 which is a subset of the FAS2 for infants. Here, 'number of subjects analysed' = subjects with available data for this outcome measure and 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Day 150

Notes:

[23] - 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: Only infants were analysed in this endpoint.

End point values	Stage II: Group 5 SP0202-IIb	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	130	118	123	130
Units: percentage of subjects				
number (confidence interval 95%)				
Anti-Diphtheria toxoid (n = 130, 118, 123, 130)	94.6 (89.2 to 97.8)	97.5 (92.7 to 99.5)	95.9 (90.8 to 98.7)	96.9 (92.3 to 99.2)
Anti-Tetanus toxoid (n = 130, 118, 123, 130)	100 (97.2 to 100)	100 (96.9 to 100)	100 (97.0 to 100)	100 (97.2 to 100)
Anti-PRP (n=127, 113, 112, 128)	99.2 (95.7 to 100)	99.1 (95.2 to 100)	98.2 (93.7 to 99.8)	100 (97.2 to 100)

Statistical analyses

No statistical analyses for this end point

Secondary: For Infants: Percentage of Subjects With Antibody Responses to Poliovirus 1, 2 and 3 30 Days Post-Dose 3

End point title	For Infants: Percentage of Subjects With Antibody Responses to Poliovirus 1, 2 and 3 30 Days Post-Dose 3[24]

End point description:

Anti-poliovirus types 1, 2, and 3 were measured by neutralisation assay. Response was defined as a titer >=8. Results are based on PPAS2 which is a subset of the FAS2 for infants. Here, 'number of subjects analysed' = subjects with available data for this outcome measure and 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Day 150

Notes:

[24] - 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: Only infants were analysed in this endpoint.

End point values	Stage II: Group 5 SP0202-IIb	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	125	109	114	127
Units: percentage of subjects				
number (confidence interval 95%)				
Anti-poliovirus 1 (n = 123, 109, 114, 126)	99.2 (95.6 to 100)	100 (96.7 to 100)	97.4 (92.5 to 99.5)	100 (97.1 to 100)
Anti-poliovirus 2 (n = 122, 105, 112, 124)	100 (97.0 to 100)	100 (96.5 to 100)	99.1 (95.1 to 100)	100 (97.1 to 100)
Anti-poliovirus 3 (n = 125, 109, 111, 127)	100 (97.1 to 100)	100 (96.7 to 100)	99.1 (95.1 to 100)	100 (97.1 to 100)

Statistical analyses

No statistical analyses for this end point

Secondary: For Infants: GMCs of Antibodies to Pertussis Antigens 30 Days Post-Dose 3

End point title	For Infants: GMCs of Antibodies to Pertussis Antigens 30 Days Post-Dose 3[25]

End point description:

Serum samples were collected for analysis by ECL to determine the GMC of antibodies to the following Pertussis antigens: Pertussis toxoid/toxin, Filamentous hemagglutinin, Pertactin and Fimbriae types 2&3. Results are based on PPAS2 which is a subset of the FAS2 for infants. Here, 'number of subjects analysed' = subjects with available data for this outcome measure.

End point type	Secondary

End point timeframe:

Day 150

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: Only infants were analysed in this endpoint.

End point values	Stage II: Group 5 SP0202-IIb	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	130	118	123	130
Units: ELISA units (EU)/mL				
geometric mean (confidence interval 95%)				
Pertussis toxoid/toxin	67.9 (60.1 to 76.6)	77.2 (67.4 to 88.5)	66.3 (57.4 to 76.6)	68.3 (59.7 to 78.2)
Filamentous hemagglutinin	109 (94.9 to 124)	107 (94.4 to 122)	108 (95.2 to 123)	104 (93.0 to 116)
Pertactin	38.3 (32.3 to 45.4)	36.1 (29.4 to 44.3)	39.8 (32.8 to 48.3)	45.2 (37.7 to 54.1)
Fimbriae types 2&3	347 (295 to 408)	341 (286 to 407)	315 (262 to 380)	343 (282 to 418)

Statistical analyses

No statistical analyses for this end point

Secondary: For Infants: Percentage of Subjects With Antibody Responses to Hepatitis-B Antigens 30 Days Post-Dose 3

End point title	For Infants: Percentage of Subjects With Antibody Responses to Hepatitis-B Antigens 30 Days Post-Dose 3[26]

End point description:

Anti-Hepatitis B antibodies were measured by the commercially available VITROS ECi/ECiQ immunodiagnostic system using chemiluminescence detection technology. The VITROS ECi immunodiagnostic system uses an antibody mediated antigen sandwich formation to detect the presence of anti-hepatitis B surface antigen total immunoglobulin in human serum. The threshold presented is >=10 milli international units (mIU/mL). Results are based on PPAS2 which is a subset of the FAS2 for infants. Here, 'number of subjects analysed' = subjects with available data for this outcome measure.

End point type	Secondary

End point timeframe:

Day 150

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: Only infants were analysed in this endpoint.

End point values	Stage II: Group 5 SP0202-IIb	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	121	106	108	123
Units: percentage of subjects				
number (confidence interval 95%)	98.3 (94.2 to 99.8)	99.1 (94.9 to 100)	98.1 (93.5 to 99.8)	99.2 (95.6 to 100)

Statistical analyses

No statistical analyses for this end point

Secondary: For Infants: Percentage of Subjects With Antibody Responses to M-M-RII and Varivax Antigens 30 Days Post-Dose 4

End point title	For Infants: Percentage of Subjects With Antibody Responses to M-M-RII and Varivax Antigens 30 Days Post-Dose 4[27]

End point description:

Anti-measles antibodies were determined by bulk measles IgG enzyme immunoassay (EIA); anti-mumps antibodies by ELISA, anti-rubella antibodies by bulk rubella IgG EIA and anti-varicella antibodies were determined by glycoprotein ELISA to detect total IgG antibody to respective virus before and after vaccination with a virus-containing vaccine. Percentage of subjects with anti-measles antibody concentrations >=255 (mIU/mL, anti-mumps antibody concentrations: >=10 antibody units/mL, anti-rubella antibody concentrations >=10 IU/mL and anti-varicella concentrations >=5 units/mL is reported in this outcome measure. Results are based on PPAS3 which is a subset of the FAS3 for infants. Here, 'number of subjects analysed' = subjects with available data for this outcome measure.

End point type	Secondary

End point timeframe:

Day 330

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: Only infants were analysed in this endpoint.

End point values	Stage II: Group 5 SP0202-IIb	Stage II: Group 6 SP0202-VI	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	118	104	98	124
Units: percentage of subjects				
number (confidence interval 95%)				
Anti-Measles	97.5 (92.7 to 99.5)	97.1 (91.8 to 99.4)	96.9 (91.3 to 99.4)	98.4 (94.3 to 99.8)
Anti-Mumps	99.2 (95.4 to 100)	97.1 (91.8 to 99.4)	96.9 (91.3 to 99.4)	98.4 (94.3 to 99.8)
Anti-Rubella	98.3 (94.0 to 99.8)	98.1 (93.2 to 99.8)	99.0 (94.4 to 100)	98.4 (94.3 to 99.8)
Anti-Varicella	100 (96.9 to 100)	99.0 (94.8 to 100)	95.9 (89.9 to 98.9)	98.4 (94.3 to 99.8)

Statistical analyses

No statistical analyses for this end point

Adverse events information

Timeframe for reporting adverse events:

AEs data was collected from first dose vaccine administration (Day 1) until 6 months after the last dose administration, 490 days.

Adverse event reporting additional description:

Analysis was performed on the safety analysis set.

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	26.0

Reporting groups

Reporting group title	Stage I: Group 1 SP0202-IIb

Reporting group description:

Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received 1 dose of SP0202-IIb formulation, concomitantly administered with Pentacel.

Reporting group title	Stage I: Group 2 SP0202-VI

Reporting group description:

Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received 1 dose of SP0202-VI formulation, concomitantly administered with Pentacel.

Reporting group title	Stage I: Group 3 SP0202-VII

Reporting group description:

Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received 1 dose of SP0202-VII formulation, concomitantly administered with Pentacel.

Reporting group title	Stage I: Group 4 Prevnar 13

Reporting group description:

Toddlers aged between 12 and 15 months who previously received the 3-dose primary series of Prevnar 13 received another dose of Prevnar 13, concomitantly administered with Pentacel.

Reporting group title	Stage II: Group 5 SP0202-IIb-Safety

Reporting group description:

Infants aged 2 months received 3 doses of SP0202-IIb formulation at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).

Reporting group title	Stage II: Group 6 SP0202-VI

Reporting group description:

Infants aged 2 months were received 3 doses of SP0202-VI formulation at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).

Reporting group title	Stage II: Group 7 SP0202-VII

Reporting group description:

Infants aged 2 months were received 3 doses of SP0202-VII formulation at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).

Reporting group title	Stage II: Group 8 Prevnar 13

Reporting group description:

Infants aged 2 months were received 3 doses of Prevnar 13 at 2, 4, and 6 months of age and fourth dose at 12 to 15 months of age, co-administered with paediatric vaccines recommended at this age (that is, Pentacel, RotaTeq and Engerix-B at 2, 4 and 6 months of age and M-M-RII and Varivax at 12 to 15 months of age).

Serious adverse events	Stage I: Group 1 SP0202-IIb	Stage I: Group 2 SP0202-VI	Stage I: Group 3 SP0202-VII
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 35 (0.00%)	1 / 34 (2.94%)	0 / 35 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Injury, poisoning and procedural complications			
Accidental Overdose			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Femur Fracture			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Congenital, familial and genetic disorders			
Heart Disease Congenital			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Nervous system disorders			
Febrile Convulsion			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
General disorders and administration site conditions			
Death			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Eye disorders			
Eyelid Ptosis			

subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Haematochezia			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Respiratory, thoracic and mediastinal disorders			
Respiratory Distress			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Musculoskeletal and connective tissue disorders			
Limb Asymmetry			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Infections and infestations			
Bacterial Diarrhoea			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Bronchiolitis			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Covid-19			

subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Gastroenteritis			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Hand-Foot-And-Mouth Disease			
subjects affected / exposed	0 / 35 (0.00%)	1 / 34 (2.94%)	0 / 35 (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
Nasopharyngitis			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Pneumonia			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Pneumonia Influenzal			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Pyelonephritis			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Respiratory Syncytial Virus Bronchiolitis			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Respiratory Syncytial Virus Infection			

subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Subcutaneous Abscess			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Urinary Tract Infection			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Viral Infection			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Metabolism and nutrition disorders			
Dehydration			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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
Hypoglycaemia			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (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	Stage I: Group 4 Prevnar 13	Stage II: Group 5 SP0202-IIb-Safety	Stage II: Group 6 SP0202-VI
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 34 (0.00%)	3 / 180 (1.67%)	9 / 178 (5.06%)
number of deaths (all causes)	0	0	1
number of deaths resulting from adverse events	0	0	0
Injury, poisoning and procedural complications			
Accidental Overdose			

subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	0 / 178 (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
Femur Fracture			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	0 / 178 (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
Congenital, familial and genetic disorders			
Heart Disease Congenital			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	1 / 178 (0.56%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nervous system disorders			
Febrile Convulsion			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	1 / 178 (0.56%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
General disorders and administration site conditions			
Death			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	1 / 178 (0.56%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 1
Eye disorders			
Eyelid Ptosis			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	0 / 178 (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
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	0 / 34 (0.00%)	1 / 180 (0.56%)	0 / 178 (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
Haematochezia			

subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	0 / 178 (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
Respiratory, thoracic and mediastinal disorders			
Respiratory Distress			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	0 / 178 (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
Musculoskeletal and connective tissue disorders			
Limb Asymmetry			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	0 / 178 (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
Infections and infestations			
Bacterial Diarrhoea			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	1 / 178 (0.56%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Bronchiolitis			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	1 / 178 (0.56%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Covid-19			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	0 / 178 (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
Gastroenteritis			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	1 / 178 (0.56%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Hand-Foot-And-Mouth Disease			

subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	0 / 178 (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
Nasopharyngitis			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	1 / 178 (0.56%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pneumonia			
subjects affected / exposed	0 / 34 (0.00%)	1 / 180 (0.56%)	0 / 178 (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
Pneumonia Influenzal			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	0 / 178 (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
Pyelonephritis			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	1 / 178 (0.56%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory Syncytial Virus Bronchiolitis			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	2 / 178 (1.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory Syncytial Virus Infection			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	0 / 178 (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
Subcutaneous Abscess			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	0 / 178 (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
Urinary Tract Infection			

subjects affected / exposed	0 / 34 (0.00%)	1 / 180 (0.56%)	1 / 178 (0.56%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Viral Infection			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	0 / 178 (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
Metabolism and nutrition disorders			
Dehydration			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	1 / 178 (0.56%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Hypoglycaemia			
subjects affected / exposed	0 / 34 (0.00%)	0 / 180 (0.00%)	1 / 178 (0.56%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13	
Total subjects affected by serious adverse events			
subjects affected / exposed	8 / 176 (4.55%)	9 / 176 (5.11%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	
Injury, poisoning and procedural complications			
Accidental Overdose			
subjects affected / exposed	1 / 176 (0.57%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Femur Fracture			
subjects affected / exposed	0 / 176 (0.00%)	1 / 176 (0.57%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Congenital, familial and genetic disorders			
Heart Disease Congenital			

subjects affected / exposed	0 / 176 (0.00%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Nervous system disorders			
Febrile Convulsion			
subjects affected / exposed	1 / 176 (0.57%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
General disorders and administration site conditions			
Death			
subjects affected / exposed	0 / 176 (0.00%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Eye disorders			
Eyelid Ptosis			
subjects affected / exposed	1 / 176 (0.57%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	0 / 176 (0.00%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Haematochezia			
subjects affected / exposed	0 / 176 (0.00%)	1 / 176 (0.57%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Respiratory, thoracic and mediastinal disorders			
Respiratory Distress			
subjects affected / exposed	0 / 176 (0.00%)	1 / 176 (0.57%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Musculoskeletal and connective tissue disorders			

Limb Asymmetry			
subjects affected / exposed	1 / 176 (0.57%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Infections and infestations			
Bacterial Diarrhoea			
subjects affected / exposed	0 / 176 (0.00%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Bronchiolitis			
subjects affected / exposed	0 / 176 (0.00%)	1 / 176 (0.57%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Covid-19			
subjects affected / exposed	0 / 176 (0.00%)	1 / 176 (0.57%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Gastroenteritis			
subjects affected / exposed	0 / 176 (0.00%)	1 / 176 (0.57%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hand-Foot-And-Mouth Disease			
subjects affected / exposed	0 / 176 (0.00%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Nasopharyngitis			
subjects affected / exposed	0 / 176 (0.00%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pneumonia			
subjects affected / exposed	1 / 176 (0.57%)	2 / 176 (1.14%)	
occurrences causally related to treatment / all	0 / 1	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pneumonia Influenzal			

subjects affected / exposed	1 / 176 (0.57%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pyelonephritis			
subjects affected / exposed	1 / 176 (0.57%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Respiratory Syncytial Virus Bronchiolitis			
subjects affected / exposed	1 / 176 (0.57%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Respiratory Syncytial Virus Infection			
subjects affected / exposed	1 / 176 (0.57%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Subcutaneous Abscess			
subjects affected / exposed	1 / 176 (0.57%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Urinary Tract Infection			
subjects affected / exposed	0 / 176 (0.00%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Viral Infection			
subjects affected / exposed	0 / 176 (0.00%)	1 / 176 (0.57%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Metabolism and nutrition disorders			
Dehydration			
subjects affected / exposed	0 / 176 (0.00%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hypoglycaemia			

subjects affected / exposed	0 / 176 (0.00%)	0 / 176 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

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

Non-serious adverse events	Stage I: Group 1 SP0202-IIb	Stage I: Group 2 SP0202-VI	Stage I: Group 3 SP0202-VII
Total subjects affected by non-serious adverse events			
subjects affected / exposed	28 / 35 (80.00%)	28 / 34 (82.35%)	29 / 35 (82.86%)
Nervous system disorders			
Somnolence			
subjects affected / exposed	12 / 35 (34.29%)	11 / 34 (32.35%)	12 / 35 (34.29%)
occurrences (all)	12	11	12
General disorders and administration site conditions			
Crying			
subjects affected / exposed	16 / 35 (45.71%)	6 / 34 (17.65%)	17 / 35 (48.57%)
occurrences (all)	16	6	17
Injection Site Bruising			
subjects affected / exposed	0 / 35 (0.00%)	1 / 34 (2.94%)	1 / 35 (2.86%)
occurrences (all)	0	1	2
Injection Site Erythema			
subjects affected / exposed	20 / 35 (57.14%)	14 / 34 (41.18%)	13 / 35 (37.14%)
occurrences (all)	31	25	21
Injection Site Pain			
subjects affected / exposed	16 / 35 (45.71%)	12 / 34 (35.29%)	19 / 35 (54.29%)
occurrences (all)	26	20	34
Injection Site Swelling			
subjects affected / exposed	16 / 35 (45.71%)	14 / 34 (41.18%)	14 / 35 (40.00%)
occurrences (all)	24	21	22
Pyrexia			
subjects affected / exposed	4 / 35 (11.43%)	7 / 34 (20.59%)	8 / 35 (22.86%)
occurrences (all)	4	7	8
Gastrointestinal disorders			
Diarrhoea			

subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	2 / 35 (5.71%)
occurrences (all)	0	0	2
Teething			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (0.00%)
occurrences (all)	0	0	0
Vomiting			
subjects affected / exposed	3 / 35 (8.57%)	0 / 34 (0.00%)	2 / 35 (5.71%)
occurrences (all)	3	0	2
Psychiatric disorders			
Irritability			
subjects affected / exposed	21 / 35 (60.00%)	16 / 34 (47.06%)	22 / 35 (62.86%)
occurrences (all)	21	16	22
Infections and infestations			
Bronchiolitis			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (0.00%)
occurrences (all)	0	0	0
Nasopharyngitis			
subjects affected / exposed	1 / 35 (2.86%)	1 / 34 (2.94%)	0 / 35 (0.00%)
occurrences (all)	1	1	0
Otitis Media			
subjects affected / exposed	0 / 35 (0.00%)	0 / 34 (0.00%)	0 / 35 (0.00%)
occurrences (all)	0	0	0
Otitis Media Acute			
subjects affected / exposed	1 / 35 (2.86%)	0 / 34 (0.00%)	0 / 35 (0.00%)
occurrences (all)	1	0	0
Upper Respiratory Tract Infection			
subjects affected / exposed	1 / 35 (2.86%)	0 / 34 (0.00%)	0 / 35 (0.00%)
occurrences (all)	1	0	0
Metabolism and nutrition disorders			
Decreased Appetite			
subjects affected / exposed	9 / 35 (25.71%)	7 / 34 (20.59%)	13 / 35 (37.14%)
occurrences (all)	9	7	13

Non-serious adverse events	Stage I: Group 4 Prevnar 13	Stage II: Group 5 SP0202-IIb-Safety	Stage II: Group 6 SP0202-VI
Total subjects affected by non-serious adverse events			
subjects affected / exposed	25 / 34 (73.53%)	160 / 180 (88.89%)	164 / 178 (92.13%)

Nervous system disorders			
Somnolence			
subjects affected / exposed	10 / 34 (29.41%)	94 / 180 (52.22%)	97 / 178 (54.49%)
occurrences (all)	10	209	211
General disorders and administration site conditions			
Crying			
subjects affected / exposed	17 / 34 (50.00%)	113 / 180 (62.78%)	112 / 178 (62.92%)
occurrences (all)	17	230	224
Injection Site Bruising			
subjects affected / exposed	1 / 34 (2.94%)	11 / 180 (6.11%)	10 / 178 (5.62%)
occurrences (all)	1	17	14
Injection Site Erythema			
subjects affected / exposed	10 / 34 (29.41%)	71 / 180 (39.44%)	58 / 178 (32.58%)
occurrences (all)	18	269	213
Injection Site Pain			
subjects affected / exposed	13 / 34 (38.24%)	120 / 180 (66.67%)	127 / 178 (71.35%)
occurrences (all)	23	673	757
Injection Site Swelling			
subjects affected / exposed	9 / 34 (26.47%)	50 / 180 (27.78%)	48 / 178 (26.97%)
occurrences (all)	16	186	171
Pyrexia			
subjects affected / exposed	9 / 34 (26.47%)	67 / 180 (37.22%)	61 / 178 (34.27%)
occurrences (all)	9	108	82
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	0 / 34 (0.00%)	18 / 180 (10.00%)	16 / 178 (8.99%)
occurrences (all)	0	22	18
Teething			
subjects affected / exposed	2 / 34 (5.88%)	2 / 180 (1.11%)	3 / 178 (1.69%)
occurrences (all)	2	2	3
Vomiting			
subjects affected / exposed	3 / 34 (8.82%)	43 / 180 (23.89%)	36 / 178 (20.22%)
occurrences (all)	3	65	58
Psychiatric disorders			
Irritability			

subjects affected / exposed	20 / 34 (58.82%)	110 / 180 (61.11%)	116 / 178 (65.17%)
occurrences (all)	20	270	278
Infections and infestations			
Bronchiolitis			
subjects affected / exposed	0 / 34 (0.00%)	7 / 180 (3.89%)	11 / 178 (6.18%)
occurrences (all)	0	8	12
Nasopharyngitis			
subjects affected / exposed	0 / 34 (0.00%)	61 / 180 (33.89%)	55 / 178 (30.90%)
occurrences (all)	0	92	78
Otitis Media			
subjects affected / exposed	0 / 34 (0.00%)	7 / 180 (3.89%)	4 / 178 (2.25%)
occurrences (all)	0	7	5
Otitis Media Acute			
subjects affected / exposed	0 / 34 (0.00%)	4 / 180 (2.22%)	3 / 178 (1.69%)
occurrences (all)	0	5	3
Upper Respiratory Tract Infection			
subjects affected / exposed	0 / 34 (0.00%)	9 / 180 (5.00%)	8 / 178 (4.49%)
occurrences (all)	0	11	8
Metabolism and nutrition disorders			
Decreased Appetite			
subjects affected / exposed	11 / 34 (32.35%)	70 / 180 (38.89%)	70 / 178 (39.33%)
occurrences (all)	11	118	109

Non-serious adverse events	Stage II: Group 7 SP0202-VII	Stage II: Group 8 Prevnar 13	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	159 / 176 (90.34%)	158 / 176 (89.77%)	
Nervous system disorders			
Somnolence			
subjects affected / exposed	92 / 176 (52.27%)	104 / 176 (59.09%)	
occurrences (all)	209	220	
General disorders and administration site conditions			
Crying			
subjects affected / exposed	101 / 176 (57.39%)	106 / 176 (60.23%)	
occurrences (all)	204	231	
Injection Site Bruising			

subjects affected / exposed	14 / 176 (7.95%)	17 / 176 (9.66%)	
occurrences (all)	29	23	
Injection Site Erythema			
subjects affected / exposed	65 / 176 (36.93%)	65 / 176 (36.93%)	
occurrences (all)	282	260	
Injection Site Pain			
subjects affected / exposed	125 / 176 (71.02%)	124 / 176 (70.45%)	
occurrences (all)	736	816	
Injection Site Swelling			
subjects affected / exposed	49 / 176 (27.84%)	59 / 176 (33.52%)	
occurrences (all)	166	203	
Pyrexia			
subjects affected / exposed	63 / 176 (35.80%)	68 / 176 (38.64%)	
occurrences (all)	90	97	
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	17 / 176 (9.66%)	25 / 176 (14.20%)	
occurrences (all)	20	26	
Teething			
subjects affected / exposed	3 / 176 (1.70%)	4 / 176 (2.27%)	
occurrences (all)	6	4	
Vomiting			
subjects affected / exposed	43 / 176 (24.43%)	45 / 176 (25.57%)	
occurrences (all)	60	58	
Psychiatric disorders			
Irritability			
subjects affected / exposed	114 / 176 (64.77%)	117 / 176 (66.48%)	
occurrences (all)	262	289	
Infections and infestations			
Bronchiolitis			
subjects affected / exposed	8 / 176 (4.55%)	8 / 176 (4.55%)	
occurrences (all)	10	8	
Nasopharyngitis			
subjects affected / exposed	61 / 176 (34.66%)	48 / 176 (27.27%)	
occurrences (all)	92	73	
Otitis Media			

subjects affected / exposed	4 / 176 (2.27%)	10 / 176 (5.68%)	
occurrences (all)	4	11	
Otitis Media Acute			
subjects affected / exposed	10 / 176 (5.68%)	6 / 176 (3.41%)	
occurrences (all)	11	8	
Upper Respiratory Tract Infection			
subjects affected / exposed	5 / 176 (2.84%)	10 / 176 (5.68%)	
occurrences (all)	5	12	
Metabolism and nutrition disorders			
Decreased Appetite			
subjects affected / exposed	68 / 176 (38.64%)	67 / 176 (38.07%)	
occurrences (all)	110	118	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
30 November 2020	The early safety data review was performed on at least 70% of toddler subjects (Stage I) instead of all subjects to support the clinical development plan progression.
21 April 2021	Change of coordinating investigator for Stage II, adjustment of the statistical analysis plan, and adaptation of study design to allow infant population (Stage II) to receive the vaccination with COVID-19 vaccine as applicable.
25 June 2021	Adaptation of study design to facilitate enrollment of Stage II subjects (suppression of the blood sample at visit 1, and flexibility regarding the Hepatitis B vaccination that could be performed during the study visits or outside of the study conduct and a first dose at birth [US sites] was not an eligibility criteria any longer) and addition of Honduras as country to conduct the study to increase enrollment rate.
04 April 2022	Addition of an interim statistical analysis for internal review to get early look at the results.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported