EU Clinical Trials Register

Clinical trial results:
A Phase 3, Multicenter, Randomized, Double-blind, Active-Comparator-controlled Study to Evaluate the Safety, Tolerability, and Immunogenicity of a 4-dose Regimen of V114 in Healthy Infants (PNEU-PED)

Summary

EudraCT number	2018-004109-21
Trial protocol	Outside EU/EEA
Global end of trial date	24 May 2021

Results information

Result version number	v2 (current)
This version publication date	14 May 2022
First version publication date	05 December 2021
Version creation reason	

Trial information

Trial identification

Sponsor protocol code	V114-029

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03893448
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Merck Sharp & Dohme Corp.
Sponsor organisation address	2000 Galloping Hill Road, Kenilworth, NJ, United States, 07033
Public contact	Clinical Trials Disclosure, Merck Sharp & Dohme Corp., ClinicalTrialsDisclosure@merck.com
Scientific contact	Clinical Trials Disclosure, Merck Sharp & Dohme Corp., ClinicalTrialsDisclosure@merck.com

Notes:

Paediatric regulatory details

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

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	24 May 2021
Is this the analysis of the primary completion data?	Yes
Primary completion date	24 May 2021
Global end of trial reached?	Yes
Global end of trial date	24 May 2021
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The purpose of this study is to evaluate the safety, tolerability, and immunogenicity of V114 in healthy infants. Non-inferiority to Prevnar 13™ for immunoglobulin g (IgG) responses rates for the 13 shared and 2 serotypes unique to V114 were assessed at 30 days following Dose 3. Non-inferiority based on IgG geometric mean concentrations (GMCs) for the 13 shared and 2 serotypes unique to V114 were assessed at 30 days following Dose 3, and 30 days following Dose 4. Both IgG response rates following Dose 3, and IgG GMCs following Dose 3 and Dose 4 were compared to the lowest in recipients of Prevnar 13™ excluding serotype 3 for the 2 serotypes unique to V114, and compared to the same serotypes for the 13 shared serotypes. The primary hypotheses are: V114 is non-inferior to Prevnar 13™ for the 13 shared serotypes and for the 2 unique V114 serotypes based on the IgG response rates at 30 days following Dose 3 and IgG GMCs at 30 days following Dose 3 and at 30 days following Dose 4.

Protection of trial subjects:

This study was conducted in conformance with Good Clinical Practice standards and applicable country and/or local statutes and regulations regarding ethical committee review, informed consent, and the protection of human subjects participating in biomedical research.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	19 June 2019
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Puerto Rico: 171
Country: Number of subjects enrolled	Thailand: 390
Country: Number of subjects enrolled	Turkey: 126
Country: Number of subjects enrolled	United States: 1033
Worldwide total number of subjects	1720
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)	1720
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:

This study recruited healthy infants approximately 2 months (42 to 90 days, inclusive) of age, without a history of invasive pneumococcal disease or prior administration of any pneumococcal vaccine.

Pre-assignment

Screening details:

1720 participants were randomized in a 1:1 ratio to receive a 4-dose regimen of either V114 or Prevnar 13™. One participant randomized to the Prevnar 13™ arm was inadvertently treated with Prevnar 13™ and V114.

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

Blinding implementation details:

Study was double-blinded with in-house blinding procedures.

Arms

Are arms mutually exclusive?	Yes
Arm title	V114

Arm description:

Participants received a single 0.5 mL intramuscular (IM) injection of V114 on Day 1 from 42-90 days of age inclusive (Vaccination 1), Month 4 from 4 months of age to 1 day prior to 5 months of age (Vaccination 2), Month 6 from 6 months of age to 1 day prior to 7 months of age (Vaccination 3) and Months 12-15 from 12 months of age to 1 day prior to 16 months of age (Vaccination 4). Participants concomitantly received other licensed paediatric vaccines as follows: RotaTeq™, Pentacel™, RECOMBIVAX HB™ on Day 1, Month 4, and Month 6; VAQTA™, HIBERIX™, M-M-R™ II, VARIVAX™ on Months 12-15.

Arm type	Experimental
Investigational medicinal product name	V114 0.5 mL sterile suspension for intramuscular injection
Investigational medicinal product code	
Other name	15-valent pneumococcal conjugate vaccine
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL single-dose prefilled syringes, Single dose at Visits 1, 2, 3, and 5 (~2, 4, 6, and 12 to 15 months of age, respectively).

Investigational medicinal product name	RotaTeq™
Investigational medicinal product code	
Other name	V260
Pharmaceutical forms	Oral solution
Routes of administration	Oral use

Dosage and administration details:

RotaTeq™ live, pentavalent Rotavirus Vaccine given as oral solution. Single 2 mL dose at Visits 1, 2, and 3 (~2, 4, 6 months of age respectively)

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

Dosage and administration details:

Pentacel™ Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed, Inactivated Poliovirus and Haemophilus b Conjugate (Tetanus Toxoid Conjugate) Vaccine, given via IM injection in the opposite limb to V114 and Prevnar13™ administration. Single 0.5 mL dose at Visits 1, 2, and 3 (~2, 4, 6 months of age respectively)

Investigational medicinal product name	RECOMBIVAX HB™
Investigational medicinal product code	
Other name	V232, HEPTAVAX™-II,HBVAXPRO
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

RECOMBIVAX HB™ Hepatitis B Vaccine (Recombinant), given via IM injection in the opposite limb to V114 and Prevnar 13™ administration. Single 0.5 mL dose at Visits 1, 2, and 3 (~2, 4, 6 months of age respectively).

Investigational medicinal product name	VAQTA™
Investigational medicinal product code	
Other name	HAVRIX
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

VAQTA™ anti-hepatitis A antigen Vaccine given via subcutaneous (SC) injection in the opposite limb to V114 and Prevnar 13™ administration. Single 0.5 mL dose at Visit 5 (~12 to 15 months of age, respectively).

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

Dosage and administration details:

HIBERIX™ Haemophilus b Conjugate Vaccine (Tetanus Toxoid Conjugate), given via IM injection in the opposite limb to V114 and Prevnar 13™ administration. Single 0.5 mL dose at Visit 5 (~12 to 15 months of age, respectively).

Investigational medicinal product name	M-M-R™II
Investigational medicinal product code	
Other name	V205C
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

M-M-R™ II (Measles, Mumps, and Rubella Virus Vaccine Live), given via SC injection in the opposite limb to V114 and Prevnar 13™ administration. Single 0.5 mL dose at Visit 5 (~12 to 15 months of age, respectively).

Investigational medicinal product name	VARIVAX™
Investigational medicinal product code	
Other name	V210
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

VARIVAX™ Varicella Virus Vaccine Live, given via SC injection in the opposite limb to V114 and Prevnar 13™ administration. Single 0.5 mL dose at Visit 5 (~12 to 15 months of age, respectively).

Arm title	Prevnar 13™

Arm description:

Participants received a single 0.5 mL IM injection of Prevnar 13™ on Day 1 from 42-90 days of age inclusive (Vaccination 1), Month 4 from 4 months of age to 1 day prior to 5 months of age (Vaccination 2), Month 6 from 6 months of age to 1 day prior to 7 months of age (Vaccination 3) and Months 12-15 from 12 months of age to 1 day prior to 16 months of age (Vaccination 4). Participants concomitantly received other licensed paediatric vaccines as follows: RotaTeq™, Pentacel™, RECOMBIVAX HB™ on Day

1, Month 4, and Month 6; VAQTA™, HIBERIX™, M-M-R™ II, VARIVAX™ on Months 12-15.

Arm type	Active comparator
Investigational medicinal product name	Prevnar 13™
Investigational medicinal product code	
Other name	13-valent pneumococcal conjugate vaccine (PCV13)
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL single-dose prefilled syringes, Single dose at Visits 1, 2, 3, and 5 (~2, 4, 6, and 12 to 15 months of age, respectively)

Investigational medicinal product name	RotaTeq™
Investigational medicinal product code	
Other name	V260
Pharmaceutical forms	Oral solution
Routes of administration	Oral use

Dosage and administration details:

RotaTeq™ live, pentavalent Rotavirus Vaccine given via oral solution. Single 2.0 mL dose at Visits 1, 2, and 3 (~2, 4, 6 months of age respectively).

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

Dosage and administration details:

Pentacel™ Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed, Inactivated Poliovirus and Haemophilus b Conjugate (Tetanus Toxoid Conjugate) Vaccine, given as via IM injection in the opposite limb to V114 and Prevnar 13™ administration. Single 0.5 mL dose at Visits 1, 2, and 3 (~2, 4, 6 months of age respectively).

Investigational medicinal product name	RECOMBIVAX HB™
Investigational medicinal product code	
Other name	V232, HEPTAVAX™-II,HBVAXPRO
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

RECOMBIVAX HB™ Hepatitis B Vaccine (Recombinant), given via IM injection in the opposite limb to V114 and Prevnar 13™ administration. Single 0.5 mL dose at Visits 1, 2, and 3 (~2, 4, 6 months of age respectively).

Investigational medicinal product name	VAQTA™
Investigational medicinal product code	
Other name	HAVRIX
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

VAQTA™ anti-hepatitis A antigen Vaccine, given via IM injection in the opposite limb toV114 and Prevnar 13™ administration. Single 0.5 mL dose at Visit 5 (~12 to 15 months of age, respectively).

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

Dosage and administration details:

HIBERIX™ Haemophilus b Conjugate Vaccine (Tetanus Toxoid Conjugate), given via IM injection in the opposite limb to V114 and Prevnar 13™ administration. Single 0.5 mL dose at Visit 5 (~12 to 15 months of age, respectively).

Investigational medicinal product name	M-M-R™II
Investigational medicinal product code	
Other name	V205C
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

M-M-R™ II (Measles, Mumps, and Rubella Virus Vaccine Live), given via SC injection in the opposite limb to V114 and Prevnar 13™ administration. Single 0.5 mL dose at Visit 5 (~12 to 15 months of age, respectively).

Investigational medicinal product name	VARIVAX™
Investigational medicinal product code	
Other name	V210
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

VARIVAX™ Varicella Virus Vaccine Live, given via SC injection in the opposite limb to V114 and Prevnar 13™ administration. Single 0.5 mL dose at Visit 5 (~12 to 15 months of age, respectively).

Number of subjects in period 1	V114	Prevnar 13™
Started	860	860
Treated	858	856
Completed	758	734
Not completed	102	126
Physician decision	8	14
Withdrawal By Parent/Guardian	59	85
Death	1	-
Lost to follow-up	34	27

Baseline characteristics

Reporting groups

Reporting group title	V114

Reporting group description:

Participants received a single 0.5 mL intramuscular (IM) injection of V114 on Day 1 from 42-90 days of age inclusive (Vaccination 1), Month 4 from 4 months of age to 1 day prior to 5 months of age (Vaccination 2), Month 6 from 6 months of age to 1 day prior to 7 months of age (Vaccination 3) and Months 12-15 from 12 months of age to 1 day prior to 16 months of age (Vaccination 4). Participants concomitantly received other licensed paediatric vaccines as follows: RotaTeq™, Pentacel™, RECOMBIVAX HB™ on Day 1, Month 4, and Month 6; VAQTA™, HIBERIX™, M-M-R™ II, VARIVAX™ on Months 12-15.

Reporting group title	Prevnar 13™

Reporting group description:

Participants received a single 0.5 mL IM injection of Prevnar 13™ on Day 1 from 42-90 days of age inclusive (Vaccination 1), Month 4 from 4 months of age to 1 day prior to 5 months of age (Vaccination 2), Month 6 from 6 months of age to 1 day prior to 7 months of age (Vaccination 3) and Months 12-15 from 12 months of age to 1 day prior to 16 months of age (Vaccination 4). Participants concomitantly received other licensed paediatric vaccines as follows: RotaTeq™, Pentacel™, RECOMBIVAX HB™ on Day 1, Month 4, and Month 6; VAQTA™, HIBERIX™, M-M-R™ II, VARIVAX™ on Months 12-15.

Reporting group values	V114	Prevnar 13™	Total
Number of subjects	860	860	1720
Age Categorical			
Units: Participants			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	860	860	1720
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	0	0	0
From 65-84 years	0	0	0
85 years and over	0	0	0
Age Continuous			
Units: weeks			
arithmetic mean	8.4	8.4	
standard deviation	± 1.2	± 1.3	-
Gender Categorical			
Units: Participants			
Female	397	428	825
Male	463	432	895
Race			
Units: Subjects			
American Indian Or Alaska Native	6	13	19
Asian	223	227	450
Black Or African American	52	53	105
Multiple	98	80	178
Native Hawaiian Or Other Pacific Islander	6	4	10
White	474	483	957

Missing	1	0	1
Ethnicity			
Units: Subjects			
Hispanic Or Latino	207	204	411
Not Hispanic Or Latino	640	645	1285
Not Reported	11	6	17
Unknown	2	5	7

End points

End points reporting groups

Reporting group title	V114

Reporting group description:

Participants received a single 0.5 mL intramuscular (IM) injection of V114 on Day 1 from 42-90 days of age inclusive (Vaccination 1), Month 4 from 4 months of age to 1 day prior to 5 months of age (Vaccination 2), Month 6 from 6 months of age to 1 day prior to 7 months of age (Vaccination 3) and Months 12-15 from 12 months of age to 1 day prior to 16 months of age (Vaccination 4). Participants concomitantly received other licensed paediatric vaccines as follows: RotaTeq™, Pentacel™, RECOMBIVAX HB™ on Day 1, Month 4, and Month 6; VAQTA™, HIBERIX™, M-M-R™ II, VARIVAX™ on Months 12-15.

Reporting group title	Prevnar 13™

Reporting group description:

Participants received a single 0.5 mL IM injection of Prevnar 13™ on Day 1 from 42-90 days of age inclusive (Vaccination 1), Month 4 from 4 months of age to 1 day prior to 5 months of age (Vaccination 2), Month 6 from 6 months of age to 1 day prior to 7 months of age (Vaccination 3) and Months 12-15 from 12 months of age to 1 day prior to 16 months of age (Vaccination 4). Participants concomitantly received other licensed paediatric vaccines as follows: RotaTeq™, Pentacel™, RECOMBIVAX HB™ on Day 1, Month 4, and Month 6; VAQTA™, HIBERIX™, M-M-R™ II, VARIVAX™ on Months 12-15.

Primary: Percentage of Participants with Solicited Injection-Site Adverse Events (AEs) in V114 versus Prevnar 13™

End point title	Percentage of Participants with Solicited Injection-Site Adverse Events (AEs) in V114 versus Prevnar 13™

End point description:

An AE is any untoward medical occurrence in a clinical study participant, temporally associated with the use of study intervention, whether or not considered related to the study intervention. Solicited injection-site AEs consisted of swelling, redness, pain or tenderness, and hard lump. The analysis population for this endpoint included all randomized participants who received at least 1 dose of either V114 or Prevnar 13™. One participant in the Prevnar 13™ group inadvertently received both V114 and Prevnar 13™ and was excluded from the analysis population.

End point type	Primary

End point timeframe:

Up to 14 days after each vaccination with either V114 or Prevnar 13™

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	858	855		
Units: Percentage of participants				
number (not applicable)				
Solicited injection site AEs	69.0	69.2		
Injection site erythema (redness)	33.7	38.5		
Injection site induration (hard lump)	26.3	26.8		
Injection site pain (pain)	49.8	46.9		
Injection site swelling (swelling)	26.3	24.0		

Statistical analyses

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Injection site erythema Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1713
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.039
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-4.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-9.3
upper limit	-0.2

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Injection site induration Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1713
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.836
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-0.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.6
upper limit	3.7

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Injection site pain Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	1713
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.235
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	2.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.9
upper limit	7.6

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	
Injection site swelling Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1713
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.26
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	2.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.7
upper limit	6.5

Primary: Percentage of Participants with Solicited Systemic AEs

End point title	Percentage of Participants with Solicited Systemic AEs
End point description:	

An AE is any untoward medical occurrence in a clinical study participant, temporally associated with the use of study intervention, whether or not considered related to the study intervention. Solicited systemic AEs consisted of irritability, drowsiness, appetite lost, and hives or welts. The analysis population for this endpoint included all randomized participants who received at least 1 dose either of V114 or Prevnar 13™. One participant in the Prevnar 13™ group inadvertently received both V114 and Prevnar 13™ and was excluded from the analysis population.

End point type	Primary
End point timeframe:	

Up to 14 days after each vaccination with either V114 or Prevnar 13™

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	858	855		
Units: Percentage of participants				
number (not applicable)				
Solicited systemic adverse events	84.4	84.8		
Decreased appetite	34.3	36.0		
Irritability	76.5	75.4		
Somnolence (drowsiness)	59.0	62.0		
Urticaria (hives)	6.5	6.5		

Statistical analyses

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	
Decreased appetite Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1713
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.446
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-1.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.3
upper limit	2.8

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	
Somnolence (drowsiness) Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1713
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.202
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-3

Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.6
upper limit	1.6

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	

Urticaria (Hives) Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1713
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.985
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.4
upper limit	2.3

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	

Irritability Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1713
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.622
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3
upper limit	5.1

Primary: Percentage of Participants with Vaccine-Related Serious Adverse Events (SAEs)

End point title	Percentage of Participants with Vaccine-Related Serious

	Adverse Events (SAEs)

End point description:

An SAE is any untoward medical occurrence that, at any dose, results in death, is life-threatening, requires inpatient hospitalization or prolongs existing hospitalization, results in persistent or significant disability/incapacity, is a congenital anomaly/birth defect, or is an other important medical event. Any SAEs that are at least possibly related to vaccination are summarized. The analysis population for this endpoint included all randomized participants who received at least 1 dose of either V114 or Prevnar 13™. One participant in the Prevnar 13™ group inadvertently received both V114 and Prevnar 13™ and was excluded from the analysis population.

End point type	Primary

End point timeframe:

From Day 1 up to 6 months after Vaccination 4 (up to 21 months)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	858	855		
Units: Percentage of participants				
number (not applicable)	0.0	0.0		

Statistical analyses

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1713
Analysis specification	Pre-specified
Analysis type	other
Parameter estimate	Percentage Point Difference
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.4
upper limit	0.4

Primary: Percentage of Participants with Anti-Pneumococcal Polysaccharide (anti-PnP) Immunoglobulin G (IgG) Antibody (Ab) ≥0.35 µg/mL One Month After Vaccination 3

End point title	Percentage of Participants with Anti-Pneumococcal Polysaccharide (anti-PnP) Immunoglobulin G (IgG) Antibody (Ab) ≥0.35 µg/mL One Month After Vaccination 3

End point description:

Anti-PnP serotype-specific IgG response rates for the 15 serotypes contained in V114 were measured with pneumococcal electrochemiluminescence (PnECL). The percentage of participants with IgG Ab ≥0.35 µg/mL are reported for each serotype. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the

immunogenicity analysis and who had sufficient blood volume to perform the analysis. IgG response rates were compared to the lowest in recipients of Prevnar 13™ excluding serotype 3 for the 2 serotypes unique to V114, and compared to the same serotypes for the 13 shared serotypes.

End point type	Primary
End point timeframe:	
One month after Vaccination 3 (Month 7)	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	858	856		
Units: Percentage of participants				
number (not applicable)				
Serotype 1 (n=702, 665)	95.7	99.1		
Serotype 3 (n=699, 662)	94.7	79.2		
Serotype 4 (n=699, 663)	96.4	98.6		
Serotype 5 (n=702, 664)	95.3	97.4		
Serotype 6A (n=702, 663)	93.7	98.6		
Serotype 6B (n=699, 662)	88.6	92.0		
Serotype 7F (n=701, 665)	99.0	99.8		
Serotype 9V (n=700, 661)	97.1	98.2		
Serotype 14 (n=700, 661)	97.9	97.9		
Serotype 18C (n=700, 662)	97.4	98.3		
Serotype 19A (n=702, 665)	97.9	99.7		
Serotype 19F (n=700, 663)	99.0	100.0		
Serotype 23F (n=698, 661)	91.5	91.8		
Serotype 22F (n=701, 661)	98.6	91.8		
Serotype 33F (n=702, 661)	87.3	91.8		

Statistical analyses

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	
Serotype 1 Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [1]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-3.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.2
upper limit	-1.8

Notes:

[1] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	
Serotype 3 Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [2]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	15.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	12.1
upper limit	19.2

Notes:

[2] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	
Serotype 4 Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [3]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-2.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4
upper limit	-0.6

Notes:

[3] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	
Serotype 5 Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method	
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [4]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-2.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.2
upper limit	-0.2

Notes:

[4] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Serotype 6A Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [5]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-4.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.1
upper limit	-3

Notes:

[5] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Serotype 6B Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [6]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-3.4

Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.6
upper limit	-0.3

Notes:

[6] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Serotype 7F Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [7]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-0.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.9
upper limit	-0.1

Notes:

[7] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Serotype 9V Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [8]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.8
upper limit	0.6

Notes:

[8] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:	
Serotype 14 Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [9]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.6
upper limit	1.6

Notes:

[9] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	
Serotype 18C Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [10]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-0.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.6
upper limit	0.7

Notes:

[10] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	
Serotype 19A Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [11]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-1.8

Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.2
upper limit	-0.8

Notes:

[11] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Serotype 19F Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [12]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.1
upper limit	-0.4

Notes:

[12] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Serotype 23F Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [13]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-0.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.2
upper limit	2.7

Notes:

[13] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Serotype 22F This analysis represents the difference between response rate to Serotype 22F in recipients of V114 and lowest response (Serotype 23F at 91.8) in recipients of Prevnar 13™ for shared serotypes, excluding serotype 3. Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [14]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	6.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.6
upper limit	9.2

Notes:

[14] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Serotype 33F This analysis represents the difference between response rate to Serotype 22F in recipients of V114 and lowest response (Serotype 23F at 91.8) in recipients of Prevnar 13™ for shared serotypes, excluding serotype 3. Estimated difference, CI, and p-value are calculated based on the Miettinen & Nurminen method

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [15]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-4.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.8
upper limit	-1.3

Notes:

[15] - p-value is 1-sided

Primary: Geometric Mean Concentration (GMC) of anti-PnP IgG Ab One Month After Vaccination 3

End point title	Geometric Mean Concentration (GMC) of anti-PnP IgG Ab One Month After Vaccination 3

End point description:

The GMC of anti-PnP IgG Ab were measured with PnECL one month after vaccination 3 and reported for the 15 serotypes contained in V114. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity analysis and who had sufficient blood volume to perform the analysis. IgG GMCs were compared to the lowest in recipients of Prevnar 13™ excluding serotype 3 for the 2 serotypes unique to V114, and compared to the same serotypes for the 13 shared serotypes.

End point type	Primary
End point timeframe:	
One month after Vaccination 3 (Month 7)	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	858	856		
Units: ug/mL				
geometric mean (not applicable)				
Serotype 1 (n=702, 665)	1.21 (± 9999)	1.89 (± 9999)		
Serotype 3 (n=699, 662)	1.08 (± 9999)	0.62 (± 9999)		
Serotype 4 (n=699, 663)	1.29 (± 9999)	1.35 (± 9999)		
Serotype 5 (n=702, 664)	1.63 (± 9999)	2.25 (± 9999)		
Serotype 6A (n=702, 663)	1.55 (± 9999)	2.95 (± 9999)		
Serotype 6B (n=699, 662)	1.60 (± 9999)	1.97 (± 9999)		
Serotype 7F (n=701, 665)	2.48 (± 9999)	3.23 (± 9999)		
Serotype 9V (n=700, 661)	1.73 (± 9999)	1.89 (± 9999)		
Serotype 14 (n=700, 661)	4.78 (± 9999)	6.80 (± 9999)		
Serotype 18C (n=700, 662)	1.53 (± 9999)	2.00 (± 9999)		
Serotype 19A (n=702, 665)	1.63 (± 9999)	2.29 (± 9999)		
Serotype 19F (n=700, 663)	2.01 (± 9999)	2.72 (± 9999)		
Serotype 23F (n=698, 661)	1.31 (± 9999)	1.47 (± 9999)		
Serotype 22F (n=701, 660)	4.91 (± 9999)	1.35 (± 9999)		
Serotype 33F (n=702, 664)	1.67 (± 9999)	1.35 (± 9999)		

Statistical analyses

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)
Statistical analysis description:	
Serotype 1 GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.64
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.59
upper limit	0.69

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 3 GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	1.73
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.61
upper limit	1.87

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 4 GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.95
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.88
upper limit	1.03

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 5 GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.72
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.66
upper limit	0.8

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)
Statistical analysis description:	

Serotype 6A GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	= 0.167
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.52
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.48
upper limit	0.58

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)
Statistical analysis description:	

Serotype 6B GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.81

Confidence interval	
level	95 %
sides	2-sided
lower limit	0.71
upper limit	0.93

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 7F GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.77
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.71
upper limit	0.83

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 9V GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.91
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.84
upper limit	1

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 14 GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.63
upper limit	0.78

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 18C GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.76
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.7
upper limit	0.83

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 19A GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.71
Confidence interval	

level	95 %
sides	2-sided
lower limit	0.65
upper limit	0.77

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 19F GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.74
Confidence interval	

level	95 %
sides	2-sided
lower limit	0.69
upper limit	0.79

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 23F GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.89

Confidence interval	
level	95 %
sides	2-sided
lower limit	0.8
upper limit	0.99

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 22F IgG GMC for Serotype 22F in recipients of V114 was compared to lowest IgG GMC (Serotype 4 at 1.35 ug/mL) for shared serotype in recipients of Prevnar 13™, excluding serotype 3. GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	3.64
Confidence interval	
level	95 %
sides	2-sided
lower limit	3.33
upper limit	3.98

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 33F IgG GMC for Serotype 22F in recipients of V114 was compared to lowest IgG GMC (Serotype 4 at 1.35 ug/mL) for shared serotype in recipients of Prevnar 13™, excluding serotype 3. GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	1.24
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.1
upper limit	1.39

Primary: GMC of anti-PnP IgG Ab One Month After Vaccination 4

End point title	GMC of anti-PnP IgG Ab One Month After Vaccination 4

End point description:

The GMC of anti-PnP IgG Ab were measured with PnECL one month after vaccination 4 and reported for the 15 serotypes contained in V114. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity analysis and who had sufficient blood volume to perform the analysis. IgG GMCs were compared to the lowest in recipients of Prevnar 13™ excluding serotype 3 for the 2 serotypes unique to V114, and compared to the same serotypes for the 13 shared serotypes.

End point type	Primary

End point timeframe:

One month after Vaccination 4 (Month 13 to Month 16)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	858	856		
Units: ug/mL				
geometric mean (not applicable)				
Serotype 1 (n=715, 685)	1.35 (± 9999)	2.03 (± 9999)		
Serotype 3 (n=712, 686)	0.96 (± 9999)	0.71 (± 9999)		
Serotype 4 (n=713, 682)	1.23 (± 9999)	1.60 (± 9999)		
Serotype 5 (n=713, 682)	2.49 (± 9999)	3.95 (± 9999)		
Serotype 6A (n=713, 682)	3.70 (± 9999)	6.21 (± 9999)		
Serotype 6B (n=712, 682)	4.76 (± 9999)	6.43 (± 9999)		
Serotype 7F (n=714, 686)	3.42 (± 9999)	4.85 (± 9999)		
Serotype 9V (n=716, 686)	2.40 (± 9999)	3.29 (± 9999)		
Serotype 14 (n=716, 685)	5.61 (± 9999)	6.95 (± 9999)		
Serotype 18C (n-713, 684)	2.62 (± 9999)	3.08 (± 9999)		
Serotype 19A (n=715, 685)	4.10 (± 9999)	5.53 (± 9999)		
Serotype 19F (n=715, 685)	3.55 (± 9999)	4.47 (± 9999)		
Serotype 23F (n=713, 683)	2.04 (± 9999)	3.32 (± 9999)		
Serotype 22F (n=714, 682)	7.52 (± 9999)	1.60 (± 9999)		
Serotype 33F (n=714, 677)	4.15 (± 9999)	1.60 (± 9999)		

Statistical analyses

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 1 GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.66
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.62
upper limit	0.72

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 3 GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	1.35
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.25
upper limit	1.46

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 4 GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.77

Confidence interval	
level	95 %
sides	2-sided
lower limit	0.71
upper limit	0.84

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 5 GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.63
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.58
upper limit	0.69

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 6A GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.54
upper limit	0.65

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 6B GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.74
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.67
upper limit	0.81

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 7F GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.65
upper limit	0.77

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 9V GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.73
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.67
upper limit	0.8

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 14 GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.81
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.73
upper limit	0.89

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 18C GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.85

Confidence interval	
level	95 %
sides	2-sided
lower limit	0.78
upper limit	0.93

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 19A GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.74
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.68
upper limit	0.8

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 19F GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.79
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.74
upper limit	0.86

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 23F GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.61
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.56
upper limit	0.68

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 22F IgG GMC for Serotype 22F in recipients of V114 was compared to to lowest IgG GMC (Serotype 4 at 1.60 ug/mL) for shared serotype in recipients of Prevnar 13™, excluding serotype 3. GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	4.69
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.3
upper limit	5.11

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 33F IgG GMC for Serotype 22F in recipients of V114 was compared to to lowest IgG GMC (Serotype 4 at 1.60 ug/mL) for shared serotype in recipients of Prevnar 13™, excluding serotype 3. GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	2.59
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.36
upper limit	2.83

Secondary: Percentage of Participants Meeting Response Rate Criteria for Pentacel™-Specific (anti-Diptheria Toxoid, Tetanus Toxoid, and Pertuss Antigens) Immunoglobulin G (IgG) Antibody (Ab) Geometric Mean Concentration (GMC) One Month After Vaccination 3

End point title	Percentage of Participants Meeting Response Rate Criteria for Pentacel™-Specific (anti-Diptheria Toxoid, Tetanus Toxoid, and Pertuss Antigens) Immunoglobulin G (IgG) Antibody (Ab) Geometric Mean Concentration (GMC) One Month After Vaccination 3

End point description:

Antibody responses to diphtheria toxoid, tetanus toxoid, and pertussis antigens were measured using Luminex Assay. The percentage of participants meeting specific criteria are summarized for each serotype. The serotype-specific response rate criteria are as follows: diphtheria toxoid: % ≥0.1 IU/mL; tetanus toxoid: % ≥0.1 IU/mL; pertussis toxin (PT): % ≥ 5 EU/mL; pertussis filamentous hemagglutinin (FHA): % ≥5 EU/mL; pertussis fimbrae types 2/3 (FIM 2/3): % ≥20 EU/mL; pertussis pertactin (PRN): % ≥5 EU/mL; poliovirus 1: % neutralizing antibody (NAb) ≥1:8 dilution; poliovirus 2: % NAb ≥1:8 dilution, poliovirus 3: % NAb ≥1:8 dilution; and Haemophilus influenzae Type B polyribosylribitol phosphate (Hib-PRP): % ≥0.15 µg/mL. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity analysis and who had sufficient blood volume to perform the analysis.

End point type	Secondary

End point timeframe:

One month after Vaccination 3 (Month 7)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	858	856		
Units: Percentage of participants				
number (not applicable)				
Diphtheria toxoid (n=703, 666)	96.9	97.6		
Tetanus toxoid (n=703, 666)	100.0	99.8		
Pertussis toxin (n=703, 666)	99.0	98.5		
Pertussis filamentous hemagglutinin (n=703, 666)	99.1	99.4		
Pertussis fimbrae types 2/3 (n=703, 666)	63.7	61.7		
Pertussis pertactin (n=703, 666)	67.3	65.5		
Poliovirus 1 (n=662, 619)	99.8	99.8		

Poliovirus 2 (n=648, 614)	100.0	100.0		
Poliovirus 3 (n=650, 607)	100.0	100.0		
Hib-PRP (n=648, 615)	92.1	93.5		

Statistical analyses

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:
Diphtheria toxoid % ≥0.1 IU/mL Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [16]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-0.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.6
upper limit	1.1

Notes:

[16] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:
Tetanus toxoid: % ≥0.1 IU/mL Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [17]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	0.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.4
upper limit	0.8

Notes:

[17] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:
Pertussis toxin (PT): % ≥ 5 EU/mL Estimated difference, CI, and p-value are based on the Miettinen &	

Nurminen method.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [18]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	0.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.7
upper limit	1.9

Notes:

[18] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Pertussis filamentous hemagglutinin (FHA): % ≥5 EU/mL Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [19]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-0.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.3
upper limit	0.8

Notes:

[19] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Pertussis fimbrae types 2/3 (FIM 2/3): % ≥20 EU/mL Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [20]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	2

Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.1
upper limit	7.1

Notes:

[20] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Pertussis pertactin (PRN): % ≥5 EU/mL Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [21]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	1.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.2
upper limit	6.8

Notes:

[21] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Poliovirus 1: % NAb ≥1:8 dilution Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [22]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.7
upper limit	0.8

Notes:

[22] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Poliovirus 2: % NAb ≥1:8 dilution Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [23]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.6
upper limit	0.6

Notes:

[23] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Poliovirus 3: % NAb ≥1:8 dilution Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [24]
Method	Miettinen & Nurminen
Parameter estimate	Miettinen & Nurminen
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.6
upper limit	0.6

Notes:

[24] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Haemophilus influenzae Type B polyribosylribitol phosphate (Hib-PRP): % ≥0.15 µg/mL Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [25]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-1.4

Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.3
upper limit	1.5

Notes:

[25] - p-value is 1-sided

Secondary: Pertussis Antigen Immunoglobulin G (IgG) Antibody (Ab) Geometric Mean Concentration (GMC) One Month After Vaccination 3

End point title	Pertussis Antigen Immunoglobulin G (IgG) Antibody (Ab) Geometric Mean Concentration (GMC) One Month After Vaccination 3

End point description:

Pertussis antibody GMCs were measured using Luminex Assay. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity analysis and who had sufficient blood volume to perform the analysis.

End point type	Secondary

End point timeframe:

One month after Vaccination 3 (Month 7)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	858	856		
Units: ug/mL				
geometric mean (confidence interval 95%)				
Pertussis - PT (n=703, 666)	43.73 (-9999 to 9999)	44.35 (-9999 to 9999)		
Pertussis - FHA (n=703, 666)	67.51 (-9999 to 9999)	69.18 (-9999 to 9999)		
Pertussis - FIM 2/3 (n=703, 666)	39.79 (-9999 to 9999)	36.87 (-9999 to 9999)		
Pertussis - PRN (n=703, 666)	13.16 (-9999 to 9999)	13.17 (-9999 to 9999)		

Statistical analyses

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Pertussis - PT GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.99
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.89
upper limit	1.09

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Pertussis - FHA GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	0.98
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.87
upper limit	1.09

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Pertussis - FIM 2/3 GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	1.08

Confidence interval	
level	95 %
sides	2-sided
lower limit	0.91
upper limit	1.28

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Pertussis - PRN GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	1
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.84
upper limit	1.19

Secondary: Hepatitis A Antibody Response Rate One Month After Vaccination 4

End point title	Hepatitis A Antibody Response Rate One Month After Vaccination 4

End point description:

Antibody response rates to hepatitis A were measured with hepatitis A virus enzyme immunoassay (HAV EIA). The percentage of participants with hepatitis A antigen ≥10 mIU/mL are reported. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity analysis, who had sufficient blood volume to perform the analysis, and who had available HAV EIA data.

End point type	Secondary

End point timeframe:

One month after Vaccination 4 (Month 13 to Month 16)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	649	626		
Units: Percentage of participants				
number (not applicable)	97.4	97.1		

Statistical analyses

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	
Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1275
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [26]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	0.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.6
upper limit	2.2

Notes:

[26] - p value is 1-sided

Secondary: Measles, Mumps, and Rubella Antibody Response Rate One Month After Vaccination 4

End point title	Measles, Mumps, and Rubella Antibody Response Rate One Month After Vaccination 4

End point description:

Antibody responses to measles were measured with the bulk measles IgG enzyme immunoassay (EIA). Antibody responses to mumps were measured with enzyme-linked immunosorbent assay (ELISA). Antibody responses to rubella were measured with Bulk Rubella IgG EIA. The percentage of participants with measles antigen ≥255 mIU/ML; mumps antigen ≥10 mumps Ab units/mL; and rubella antigen ≥10 IU/mL, are reported. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity analysis and who had sufficient blood volume to perform the analysis.

End point type	Secondary

End point timeframe:

One month after Vaccination 4 (Month 13 to Month 16)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	858	856		
Units: Percentage of participants				
number (not applicable)				
Measles antigen ≥255 mIU/ML (n=670, 648)	98.1	98.3		

Mumps antigen ≥10 mumps Ab units/mL (n=670, 648)	95.8	97.5	
Rubella antigen ≥10 IU/mL (n=670, 648)	98.1	98.9	

Statistical analyses

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	
Measles antigen ≥255 mIU/mL Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [27]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-0.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.8
upper limit	1.3

Notes:

[27] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)
Statistical analysis description:	
Mumps antigen ≥10 mumps Ab units/mL Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [28]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-1.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.8
upper limit	0.2

Notes:

[28] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Rubella antigen ≥10 IU/mL Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [29]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-0.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.3
upper limit	0.5

Notes:

[29] - p-value is 1-sided

Secondary: Varicella-Zoster Virus (VZV) Antibody Response Rate One Month After Vaccination 4

End point title	Varicella-Zoster Virus (VZV) Antibody Response Rate One Month After Vaccination 4

End point description:

Antibody responses to varicella-zoster virus were measured with glycoprotein enzyme-linked immunosorbent assay (gpELISA). The percentage of participants with VZV antigen ≥5 gpELISA units/mL are reported. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity analysis, who had sufficient blood volume to perform the analysis, and who had available VZV gpELISA data.

End point type	Secondary

End point timeframe:

One month after Vaccination 4 (Month 13 to Month 16)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	715	685		
Units: Percentage of participants				
number (not applicable)	96.4	97.7		

Statistical analyses

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.

Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	1400
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [30]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-1.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.2
upper limit	0.5

Notes:

[30] - p-value is 1-sided

Secondary: Haemophilus Influenzae Type B Antibody Response Rate One Month After Vaccination 4

End point title	Haemophilus Influenzae Type B Antibody Response Rate One Month After Vaccination 4

End point description:

Antibody responses to Haemophilus influenzae Type B polyribosylribitol phosphate (Hib PRP) were measured with ELISA. The percentage of participants with anti-HiB PRP antigen ≥0.15 µg/mL are reported. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity, who had sufficient blood volume to perform the analysis, and who had available Hib PRP ELISA data.

End point type	Secondary

End point timeframe:

One month after Vaccination 4 (Month 13 to Month 16)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	650	626		
Units: Percentage of participants				
number (not applicable)	98.9	100.0		

Statistical analyses

Statistical analysis title	Percentage Point Difference (V114 - Prevnar 13™)

Statistical analysis description:

Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.

Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	1276
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [31]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	-1.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.2
upper limit	-0.5

Notes:

[31] - p-value is 1-sided

Secondary: Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype-Specific Immunoglobulin G (IgG) Geometric Mean Concentration (GMC) One Month After Vaccination 3 for 2 Unique V114 Seroptypes

End point title	Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype-Specific Immunoglobulin G (IgG) Geometric Mean Concentration (GMC) One Month After Vaccination 3 for 2 Unique V114 Seroptypes

End point description:

Serotype-specific anti-PnP IgG GMCs for the 2 unique V114 serotypes were measured with PnECL. The GMCs for each serotype are reported. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity analysis and who had sufficient blood volume to perform the analysis.

End point type	Secondary

End point timeframe:

One month after Vaccination 3 (Month 7)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	858	856		
Units: ug/mL				
geometric mean (not applicable)				
22F (n=701, 660)	4.91 (± 9999)	0.05 (± 9999)		
33F (n=702, 664)	1.67 (± 9999)	0.06 (± 9999)		

Statistical analyses

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 22F GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	92.03
Confidence interval	
level	95 %
sides	2-sided
lower limit	83.47
upper limit	101.47

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 33F GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	29.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	26.16
upper limit	33.26

Secondary: Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype-Specific Immunoglobulin G (IgG) Response Rates One Month After Vaccination 3 for 2 Unique V114 Seroptypes

End point title	Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype-Specific Immunoglobulin G (IgG) Response Rates One Month After Vaccination 3 for 2 Unique V114 Seroptypes

End point description:

Serotype-specific anti-PnP IgG response rates for the 2 unique V114 serotypes were measured with PnECL. The percentage of participants with IgG Ab ≥0.35 ug/mL are reported for each serotype. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity analysis and who had sufficient blood volume to perform the analysis.

End point type	Secondary

End point timeframe:

One month after Vaccination 3 (Month 7)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	858	856		
Units: Percentage of participants				
number (not applicable)				
Serotype 22F (n=701, 660)	98.6	3.5		
Serotype 33F (n=702, 664)	87.3	2.1		

Statistical analyses

Statistical analysis title	Percentage Point Difference (V114-Prevnar 13™)
Statistical analysis description:	
Serotype 33F Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001 [32]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	85.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	82.3
upper limit	87.7

Notes:

[32] - p-value is 1-sided

Statistical analysis title	Percentage Point Difference (V114-Prevnar 13™)
Statistical analysis description:	
Serotype 22F Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method.	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001 [33]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	95.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	93.1
upper limit	96.5

Notes:

[33] - p-value is 1-sided

Secondary: Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype-Specific Immunoglobulin G (IgG) Geometric Mean Concentrations (GMC) One Month After Vaccination 4 for 2 Unique V114 Seroptypes

End point title	Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype-Specific Immunoglobulin G (IgG) Geometric Mean Concentrations (GMC) One Month After Vaccination 4 for 2 Unique V114 Seroptypes

End point description:

Serotype-specific anti-PnP GMCs were measured with PnECL. The GMC for each serotype is reported. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity analysis and who had sufficient blood volume to perform the analysis.

End point type	Secondary

End point timeframe:

One month after Vaccination 4 (Month 13 to Month 16)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	858	856		
Units: ug/mL				
geometric mean (not applicable)				
22F (n=714, 682)	7.52 (± 9999)	0.11 (± 9999)		
33F (n=714, 677)	4.15 (± 9999)	0.09 (± 9999)		

Statistical analyses

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 22F GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	68.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	63.1
upper limit	75.02

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

Serotype 33F GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1714
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	44.91
Confidence interval	
level	95 %
sides	2-sided
lower limit	41.04
upper limit	49.14

Secondary: Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype-Specific Opsonophagocytic Activity (OPA) Geometric Mean Titers (GMT) One Month After Vaccination 3

End point title	Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype-Specific Opsonophagocytic Activity (OPA) Geometric Mean Titers (GMT) One Month After Vaccination 3

End point description:

Serotype-specific anti-PnP OPA GMTs were measured with multiplex opsonophagocytic assay (MOPA). The GMTs for each serotype are summarized. Due to the large serum volume required for MOPA, the analysis population for OPA testing was performed on a subset of participants, which included the first 20% of all participants with sufficient serum volume at 30 days PD3.

End point type	Secondary

End point timeframe:

One month after Vaccination 3 (Month 7)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	176	168		
Units: titers				
geometric mean (confidence interval 95%)				
Serotype 1 (n=170, 162)	56.9 (46.1 to 70.3)	78.3 (61.5 to 99.5)		
Serotype 3 (n=169, 158)	284.7 (253.5 to 319.8)	210.6 (188.2 to 235.7)		

Serotype 4 (n=169, 159)	1304.8 (1139.6 to 1494.0)	1566.7 (1381.8 to 1776.4)		
Serotype 5 (n=171, 162)	387.4 (315.0 to 476.3)	510.8 (415.9 to 627.2)		
Serotype 6A (n=171, 159)	2072.1 (1787.5 to 2401.9)	2743.4 (2368.1 to 3178.2)		
Serotype 6B (n=169, 160)	1932.5 (1612.1 to 2316.6)	1963.7 (1604.9 to 2402.8)		
Serotype 7F (n=170, 158)	4973.2 (4277.6 to 5781.8)	7335.1 (6181.8 to 8703.5)		
Serotype 9V (n=168, 162)	1217.3 (1040.2 to 1424.6)	1534.1 (1305.5 to 1802.8)		
Serotype 14 (n=167, 160)	2400.7 (1980.8 to 2909.6)	1853.1 (1511.2 to 2272.5)		
Serotype 18C (n=171, 162)	1171.2 (1022.7 to 1341.4)	1330.2 (1158.3 to 1527.5)		
Serotype 19A (n=171,162)	841.3 (716.0 to 988.6)	1400.7 (1205.5 to 1627.4)		
Serotype 19F (n=171, 162)	703.9 (614.2 to 806.6)	850.6 (744.5 to 971.9)		
Serotype 23F (n=167, 158)	2078.9 (1779.2 to 2428.9)	3668.8 (3069.2 to 4385.6)		
Serotype 22F (n=170, 155)	1849.3 (1606.9 to 2128.2)	9.1 (7.9 to 10.4)		
Serotype 33F (n=170, 155)	8262.6 (6585.3 to 10367.1)	119.6 (83.2 to 171.8)		

Statistical analyses

No statistical analyses for this end point

Secondary: Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype-Specific Opsonophagocytic Activity (OPA) Response Rates One Month After Vaccination 3

End point title	Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype-Specific Opsonophagocytic Activity (OPA) Response Rates One Month After Vaccination 3

End point description:

Serotype-specific anti-PnP OPA GMTs were measured with MOPA. The percentage of participants meeting assay-derived threshold values are reported for each serotype. Due to the large serum volume required for MOPA, the analysis population for OPA testing was performed on a subset of participants, which included the first 20% of all participants with sufficient serum volume at 30 days PD3.

End point type	Secondary

End point timeframe:

One month after Vaccination 3 (Month 7)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	176	168		
Units: Percentage of participants				
number (confidence interval 95%)				
Serotype 1 (n=170, 162)	86.5 (80.4 to 91.2)	87.7 (81.6 to 92.3)		
Serotype 3 (n=169, 158)	100.0 (97.8 to 100.00)	100.0 (97.7 to 100.0)		
Serotype 4 (n=169, 159)	99.4 (96.7 to 100.0)	100.0 (97.7 to 100.0)		
Serotype 5 (n=171, 162)	96.5 (92.5 to 98.7)	98.1 (94.7 to 99.6)		
Serotype 6A (n=171, 159)	97.1 (93.3 to 99.0)	98.1 (94.6 to 99.6)		
Serotype 6B (n=169, 160)	98.2 (94.9 to 99.6)	98.1 (94.6 to 99.6)		
Serotype 7F (170, 158)	100.0 (97.9 to 100.0)	100.0 (97.7 to 100.0)		
Serotype 9V (n=168, 162)	98.2 (94.9 to 99.6)	97.5 (93.8 to 99.3)		
Serotype 14 (n=167, 160)	98.8 (95.7 to 99.9)	98.8 (95.6 to 99.8)		
Serotype 18C (n=171, 162)	98.8 (95.8 to 99.9)	99.4 (96.6 to 100.00)		
Serotype 19A (n=171, 162)	98.2 (95.0 to 99.6)	99.4 (96.6 to 100.0)		
Serotype 19F (n=171, 162)	95.9 (91.7 to 98.3)	98.8 (95.6 to 99.9)		
Serotype 23F (n=167, 158)	99.4 (96.7 to 100.0)	100.0 (97.7 to 100.0)		
Serotype 22F (n=170, 155)	99.4 (96.8 to 100.0)	5.8 (2.7 to 10.7)		
Serotype 33F (n=170, 155)	98.8 (95.8 to 99.9)	56.8 (48.6 to 64.7)		

Statistical analyses

No statistical analyses for this end point

Secondary: Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype 3-Specific Immunoglobulin G (IgG) Response Rate One Month After Vaccination 3

End point title	Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype 3-Specific Immunoglobulin G (IgG) Response Rate One Month After Vaccination 3

End point description:

Serotype 3-specific anti-PnP IgG response rates were measured with PnECL. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity analysis, who had sufficient blood volume to perform the analysis, and who had available serotype 3-specific IgG data.

End point type	Secondary

End point timeframe:

One month after Vaccination 3 (Month 7)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	699	662		
Units: Percentage of participants				
number (not applicable)	94.7	79.2		

Statistical analyses

Statistical analysis title	Percentage Point Difference (V114-Prevnar 13™)
Statistical analysis description:	
Estimated difference, CI, and p-value are based on the Miettinen & Nurminen method	
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1361
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001 [34]
Method	Miettinen & Nurminen
Parameter estimate	Percentage Point Difference
Point estimate	15.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	12.1
upper limit	19.2

Notes:

[34] - p-value is 1-sided

Secondary: Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype 3-Specific Immunoglobulin G (IgG) Geometric Mean Concentration (GMC) One Month After Vaccination 3

End point title	Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype 3-Specific Immunoglobulin G (IgG) Geometric Mean Concentration (GMC) One Month After Vaccination 3
End point description:	
Serotype 3-specific anti-PnP GMC were measured with PnECL. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity analysis, who had sufficient blood volume to perform the analysis, and who had available serotype 3-specific IgG data.	
End point type	Secondary
End point timeframe:	
One month after Vaccination 3 (Month 7)	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	699	662		
Units: ug/mL				
geometric mean (not applicable)	1.08 (± 9999)	0.62 (± 9999)		

Statistical analyses

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1361
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	1.73
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.61
upper limit	1.87

Secondary: Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype 3-Specific Immunoglobulin G (IgG) Geometric Mean Concentration (GMC) One Month After Vaccination 4

End point title	Anti-Pneumococcal Polysaccharide (anti-PnP) Serotype 3-Specific Immunoglobulin G (IgG) Geometric Mean Concentration (GMC) One Month After Vaccination 4

End point description:

Serotype 3-specific anti-PnP GMC were measured with PnECL. The analysis population included all randomized participants who did not have protocol deviations that could have substantially affected the results of the immunogenicity analysis who had sufficient blood volume to perform the analysis, and who had available serotype 3-specific IgG data.

End point type	Secondary

End point timeframe:

One month after Vaccination 4 (Month 13 to Month 16)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	712	686		
Units: ug/mL				
geometric mean (not applicable)	0.96 (± 9999)	0.71 (± 9999)		

Statistical analyses

Statistical analysis title	GMC Ratio (V114 / Prevnar 13™)

Statistical analysis description:

GMC ratio, CI, and p-value are calculated using the t-distribution with the variance estimate from a serotype-specific linear model utilizing the natural log-transformed antibody concentrations as the response and a single term for vaccination group.

Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	1398
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	t-test, 1-sided
Parameter estimate	GMC Ratio (V114 / Prevnar 13™)
Point estimate	1.35
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.25
upper limit	1.46

Adverse events

Adverse events information

Timeframe for reporting adverse events:	

Non-serious AEs (NSAEs): Up to ~14 days after each vaccination; SAEs and all-cause mortality: Up to ~6 months after Vaccination 4 (up to ~21 months)

Adverse event reporting additional description:

All-cause mortality was analyzed in all randomized participants; SAEs and NSAEs were analyzed in all randomized participants who received at least 1 dose of study vaccination with follow-up after V114 or Prevnar 13™.

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	24.0

Reporting groups

Reporting group title	V114

Reporting group description:

Participants received a single 0.5 mL intramuscular (IM) injection of V114 on Day 1 between 42-90 days of age inclusive (Vaccination 1), Month 4 from 4 months of age to 1 day prior to 5 months of age (Vaccination 2), Month 6 from 6 months of age to 1 day prior to 7 months of age (Vaccination 3) and Months 12-15 from 12 months of age to 1 day prior to 16 months of age (Vaccination 4). Participants concomitantly received other licensed paediatric vaccines as follows: RotaTeq™, Pentacel™, RECOMBIVAX HB™ on Day 1, Month 4, and Month 6; VAQTA™, HIBERIX™, M-M-R™ II, VARIVAX™ on Months 12-15.

Reporting group title	Cross-Treated Participants

Reporting group description:

One participant assigned to the Prevnar 13™ arm who inadvertently received both V114 and Prevnar 13™. The participant received a single 0.5 mL IM injection of Prevnar 13™ on Day 1 between 42-90 days of age inclusive (Vaccination 1), Month 4 from 4 months of age to 1 day prior to 5 months of age (Vaccination 2), Month 6 from 6 months of age to 1 day prior to 7 months of age (Vaccination 3) and a single 0.5 mL IM injection of V114 Months 12-15 from 12 months of age to 1 day prior to 16 months of age (Vaccination 4). The participant concomitantly received other licensed paediatric vaccines as follows: RotaTeq™, Pentacel™, RECOMBIVAX HB™ on Day 1, Month 4, and Month 6; VAQTA™, HIBERIX™, M-M-R™ II, VARIVAX™ on Months 12-15.

Reporting group title	Prevnar 13[TM]

Reporting group description:

Participants received a single 0.5 mL IM injection of Prevnar 13™ on Day 1 between 42-90 days of age inclusive (Vaccination 1), Month 4 from 4 months of age to 1 day prior to 5 months of age (Vaccination 2), Month 6 from 6 months of age to 1 day prior to 7 months of age (Vaccination 3) and Months 12-15 from 12 months of age to 1 day prior to 16 months of age (Vaccination 4). Participants concomitantly received other licensed paediatric vaccines as follows: RotaTeq™, Pentacel™, RECOMBIVAX HB™ on Day 1, Month 4, and Month 6; VAQTA™, HIBERIX™, M-M-R™ II, VARIVAX™ on Months 12-15.

Serious adverse events	V114	Cross-Treated Participants	Prevnar 13[TM]
Total subjects affected by serious adverse events			
subjects affected / exposed	88 / 858 (10.26%)	1 / 1 (100.00%)	81 / 855 (9.47%)
number of deaths (all causes)	1	0	1
number of deaths resulting from adverse events	0	0	0
Injury, poisoning and procedural complications			
Brain contusion			

subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Foreign body in gastrointestinal tract			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Head injury			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	2 / 855 (0.23%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 1
Road traffic accident			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Congenital, familial and genetic disorders			
Heart disease congenital			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 1	0 / 0	0 / 0
Vascular disorders			
Kawasaki's disease			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nervous system disorders			
Altered state of consciousness			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Epilepsy			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Febrile convulsion			
subjects affected / exposed	3 / 858 (0.35%)	0 / 1 (0.00%)	2 / 855 (0.23%)
occurrences causally related to treatment / all	0 / 4	0 / 0	0 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Idiopathic generalised epilepsy			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infantile spasms			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Seizure			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Blood and lymphatic system disorders			
Iron deficiency anaemia			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
General disorders and administration site conditions			
Pyrexia			
subjects affected / exposed	2 / 858 (0.23%)	0 / 1 (0.00%)	3 / 855 (0.35%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 3
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Immune system disorders			
Anaphylactic reaction			
subjects affected / exposed	2 / 858 (0.23%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrointestinal disorders			
Diarrhoea			

subjects affected / exposed	2 / 858 (0.23%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Enteritis			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Flatulence			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastritis			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrooesophageal reflux disease			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Haematochezia			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Inguinal hernia			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Reproductive system and breast disorders			
Penile haemorrhage			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
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, thoracic and mediastinal disorders			

Bronchial hyperreactivity			
subjects affected / exposed	2 / 858 (0.23%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory failure			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
Abscess limb			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Bacteraemia			
subjects affected / exposed	2 / 858 (0.23%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Bronchiolitis			
subjects affected / exposed	11 / 858 (1.28%)	1 / 1 (100.00%)	6 / 855 (0.70%)
occurrences causally related to treatment / all	0 / 12	0 / 1	0 / 6
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Bronchitis			
subjects affected / exposed	5 / 858 (0.58%)	0 / 1 (0.00%)	2 / 855 (0.23%)
occurrences causally related to treatment / all	0 / 5	0 / 0	0 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Bronchitis viral			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
COVID-19			
subjects affected / exposed	2 / 858 (0.23%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Croup infectious			

subjects affected / exposed	2 / 858 (0.23%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Cystitis

subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Dengue fever

subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Diarrhoea infectious

subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Enterovirus infection

subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Escherichia urinary tract infection

subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Exanthema subitum

subjects affected / exposed	3 / 858 (0.35%)	0 / 1 (0.00%)	3 / 855 (0.35%)
occurrences causally related to treatment / all	0 / 3	0 / 0	0 / 3
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Gastroenteritis

subjects affected / exposed	7 / 858 (0.82%)	0 / 1 (0.00%)	11 / 855 (1.29%)
occurrences causally related to treatment / all	0 / 7	0 / 0	0 / 13
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Gastroenteritis bacterial

subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastroenteritis viral			
subjects affected / exposed	6 / 858 (0.70%)	0 / 1 (0.00%)	2 / 855 (0.23%)
occurrences causally related to treatment / all	0 / 6	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 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Herpangina			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Influenza			
subjects affected / exposed	2 / 858 (0.23%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nasopharyngitis			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Oral herpes			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Oral viral infection			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Otitis media			

subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Periorbital cellulitis			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pharyngitis			
subjects affected / exposed	2 / 858 (0.23%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pneumonia			
subjects affected / exposed	5 / 858 (0.58%)	0 / 1 (0.00%)	5 / 855 (0.58%)
occurrences causally related to treatment / all	0 / 5	0 / 0	0 / 5
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pneumonia influenzal			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
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 respiratory syncytial viral			
subjects affected / exposed	4 / 858 (0.47%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 4	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pneumonia viral			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	2 / 855 (0.23%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pyelonephritis acute			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
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	7 / 858 (0.82%)	0 / 1 (0.00%)	12 / 855 (1.40%)
occurrences causally related to treatment / all	0 / 7	0 / 0	0 / 12
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory syncytial virus infection			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	3 / 855 (0.35%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 3
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Scarlet fever			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Sepsis			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Septic shock			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 1
Upper respiratory tract infection			
subjects affected / exposed	2 / 858 (0.23%)	0 / 1 (0.00%)	2 / 855 (0.23%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Urinary tract infection			
subjects affected / exposed	3 / 858 (0.35%)	0 / 1 (0.00%)	3 / 855 (0.35%)
occurrences causally related to treatment / all	0 / 3	0 / 0	0 / 3
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Varicella			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Viral infection			

subjects affected / exposed	4 / 858 (0.47%)	0 / 1 (0.00%)	2 / 855 (0.23%)
occurrences causally related to treatment / all	0 / 4	0 / 0	0 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Viral diarrhoea			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Viral rash			
subjects affected / exposed	2 / 858 (0.23%)	0 / 1 (0.00%)	2 / 855 (0.23%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Viral rhinitis			
subjects affected / exposed	0 / 858 (0.00%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Viral upper respiratory tract infection			
subjects affected / exposed	2 / 858 (0.23%)	0 / 1 (0.00%)	1 / 855 (0.12%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Metabolism and nutrition disorders			
Failure to thrive			
subjects affected / exposed	1 / 858 (0.12%)	0 / 1 (0.00%)	0 / 855 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

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

Non-serious adverse events	V114	Cross-Treated Participants	Prevnar 13[TM]
Total subjects affected by non-serious adverse events			
subjects affected / exposed	790 / 858 (92.07%)	1 / 1 (100.00%)	778 / 855 (90.99%)
Nervous system disorders			
Somnolence			
subjects affected / exposed	506 / 858 (58.97%)	0 / 1 (0.00%)	530 / 855 (61.99%)
occurrences (all)	1257	0	1309

General disorders and administration site conditions			
Injection site erythema			
subjects affected / exposed	289 / 858 (33.68%)	1 / 1 (100.00%)	329 / 855 (38.48%)
occurrences (all)	488	1	584
Injection site induration			
subjects affected / exposed	226 / 858 (26.34%)	1 / 1 (100.00%)	229 / 855 (26.78%)
occurrences (all)	385	1	404
Injection site pain			
subjects affected / exposed	427 / 858 (49.77%)	1 / 1 (100.00%)	401 / 855 (46.90%)
occurrences (all)	903	2	832
Injection site swelling			
subjects affected / exposed	226 / 858 (26.34%)	0 / 1 (0.00%)	205 / 855 (23.98%)
occurrences (all)	360	0	348
Pyrexia			
subjects affected / exposed	265 / 858 (30.89%)	0 / 1 (0.00%)	270 / 855 (31.58%)
occurrences (all)	431	0	464
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	46 / 858 (5.36%)	0 / 1 (0.00%)	62 / 855 (7.25%)
occurrences (all)	62	0	76
Vomiting			
subjects affected / exposed	42 / 858 (4.90%)	0 / 1 (0.00%)	46 / 855 (5.38%)
occurrences (all)	54	0	52
Respiratory, thoracic and mediastinal disorders			
Cough			
subjects affected / exposed	35 / 858 (4.08%)	0 / 1 (0.00%)	45 / 855 (5.26%)
occurrences (all)	39	0	48
Nasal congestion			
subjects affected / exposed	36 / 858 (4.20%)	0 / 1 (0.00%)	47 / 855 (5.50%)
occurrences (all)	40	0	49
Skin and subcutaneous tissue disorders			
Urticaria			
subjects affected / exposed	56 / 858 (6.53%)	0 / 1 (0.00%)	56 / 855 (6.55%)
occurrences (all)	69	0	69
Psychiatric disorders			

Irritability			
subjects affected / exposed	656 / 858 (76.46%)	1 / 1 (100.00%)	645 / 855 (75.44%)
occurrences (all)	2514	3	2435
Infections and infestations			
Upper respiratory tract infection			
subjects affected / exposed	55 / 858 (6.41%)	0 / 1 (0.00%)	42 / 855 (4.91%)
occurrences (all)	55	0	44
Metabolism and nutrition disorders			
Decreased appetite			
subjects affected / exposed	294 / 858 (34.27%)	0 / 1 (0.00%)	308 / 855 (36.02%)
occurrences (all)	579	0	606

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
28 February 2020	Amendment 02: This primary purpose of this amendment was to incorporate changes to the statistical analyses for the evaluation of the 2 unique V114 serotypes compared with Prevnar 13™
16 March 2021	Amendment 01: The primary purpose of this amendment is to expand the visit windows for Visit 3 (Dose 3 vaccination), Visit 4 (postdose 3 blood draw) and Visit 6 (postdose 4 blood draw) to allow inclusion of more participants in the immunogenicity analysis based on the per-protocol population. This change is being made in response to the COVID-19 global pandemic, which impacted the ability of many participants to attend study visits within the prescribed visit windows due to local conditions and travel restrictions. This amendment also includes the addition of 3 secondary hypotheses relating to the demonstration of superiority for serotype 3 immune responses.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

 None reported