



Clinical trial results:

A Phase 3, Multicenter, Randomized, Double-blind, Active Comparator-controlled Study to Evaluate the Safety, Tolerability, and Immunogenicity of V114 Followed by Administration of PNEUMOVAX™23 One Year Later in Healthy Adults 50 Years of Age or Older (PNEU-PATH)

Summary

EudraCT number	2017-004024-30
Trial protocol	ES
Global end of trial date	23 December 2019

Results information

Result version number	v1 (current)
This version publication date	26 December 2020
First version publication date	26 December 2020

Trial information

Trial identification

Sponsor protocol code	V114-016
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Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	-
WHO universal trial number (UTN)	-
Other trial identifiers	Merck Protocol Number: V114-016

Notes:

Sponsors

Sponsor organisation name	Merck Sharp & Dohme Corp.
Sponsor organisation address	2000 Galloping Hill Road, Kenilworth, 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?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	23 December 2019
Is this the analysis of the primary completion data?	Yes
Primary completion date	23 December 2019
Global end of trial reached?	Yes
Global end of trial date	23 December 2019
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

This study is designed 1) to evaluate the safety, tolerability, and immunogenicity of V114 and Prevnar 13™, 2) to describe the safety of sequential administration of V114 or Prevnar 13™ followed by PNEUMOVAX™23, and 3) to evaluate the immune responses to the 15 serotypes contained in V114 when PNEUMOVAX™23 is given approximately 12 months after receipt of either V114 or Prevnar 13™ in healthy adults 50 years of age or older. There was no formal hypothesis testing.

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	22 June 2018
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	Korea, Republic of: 100
Country: Number of subjects enrolled	Spain: 120
Country: Number of subjects enrolled	Taiwan: 101
Country: Number of subjects enrolled	United States: 331
Worldwide total number of subjects	652
EEA total number of subjects	120

Notes:

Subjects enrolled per age group

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

Adults (18-64 years)	325
From 65 to 84 years	321
85 years and over	6

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

A total of 600 participants were planned to be randomized in a 1:1 ratio to receive either V114 or Prevnar 13™ on Day 1 and PNEUMOVAX™23 at Month 12. Randomization was stratified by age (50 to 64 years, 65 to 74 years, and 75 years or older; at least 50% of the participants were to be 65 years of age or older).

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	Investigator, Subject

Arms

Are arms mutually exclusive?	Yes
Arm title	V114

Arm description:

Participants were to receive a single 0.5 mL intramuscular (IM) injection of V114 on Day 1 (Vaccination 1) and a single 0.5 mL IM injection of PNEUMOVAX™23 at Month 12 (Vaccination 2)

Arm type	Experimental
Investigational medicinal product name	V114
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

15-valent pneumococcal conjugate vaccine with serotypes 1, 3, 4, 5, 6A, 7F, 9V, 14, 18C, 19A, 19F, 22F, 23F, 33F (2 mcg each), serotype 6B (4 mcg) and Merck Aluminum Phosphate Adjuvant (125 mcg) in each 0.5 mL dose

Investigational medicinal product name	PNEUMOVAX™23
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

23-valent pneumococcal polysaccharide vaccine with serotypes 1, 2, 3, 4, 5, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19A, 19F, 20, 22F, 23F, 33F (25 mcg each) in each 0.5 mL dose

Arm title	Prevnar 13™
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Arm description:

Participants were to receive a single 0.5 mL IM injection of Prevnar 13™ on Day 1 (Vaccination 1) and a single 0.5 mL IM injection of PNEUMOVAX™23 at Month 12 (Vaccination 2)

Arm type	Active comparator
Investigational medicinal product name	Prevnar 13™
Investigational medicinal product code	
Other name	PCV13
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

13-valent pneumococcal conjugate vaccine with serotypes 1, 3, 4, 5, 6A, 7F, 9V, 14, 18C, 19A, 19F, 23F (2.2 mcg) and 6B (4.4 mcg) and aluminum phosphate adjuvant (125 mcg) in each 0.5 mL dose

Investigational medicinal product name	PNEUMOVAX™23
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Investigational medicinal product code	
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Other name	PPV23
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Pharmaceutical forms	Injection
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Routes of administration	Intramuscular use
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Dosage and administration details:

23-valent pneumococcal polysaccharide vaccine with serotypes 1, 2, 3, 4, 5, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19A, 19F, 20, 22F, 23F, 33F (25 mcg each) in each 0.5 mL dose

Number of subjects in period 1	V114	Prevnar 13™
Started	327	325
Vaccination 1-V114 or Prevnar 13™, Day 1	326	325
Vaccination 2-PNEUMOVAX™23, Month 12	298 ^[1]	302 ^[2]
Completed	303	306
Not completed	24	19
Consent withdrawn by subject	18	10
Non-study pneumococcal vaccine	1	-
Lost to follow-up	4	7
Pain with vaccination	1	-
Oncological treatment	-	2

Notes:

[1] - The number of subjects at this milestone seems inconsistent with the number of subjects in the arm. It is expected that the number of subjects will be greater than, or equal to the number that completed, minus those who left.

Justification: Participants could have been considered to complete the study without receipt of PNEUMOVAX™23.

[2] - The number of subjects at this milestone seems inconsistent with the number of subjects in the arm. It is expected that the number of subjects will be greater than, or equal to the number that completed, minus those who left.

Justification: Participants could have been considered to complete the study without receipt of PNEUMOVAX™23.

Baseline characteristics

Reporting groups

Reporting group title	V114
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Reporting group description:

Participants were to receive a single 0.5 mL intramuscular (IM) injection of V114 on Day 1 (Vaccination 1) and a single 0.5 mL IM injection of PNEUMOVAX™23 at Month 12 (Vaccination 2)

Reporting group title	Prevnam 13™
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Reporting group description:

Participants were to receive a single 0.5 mL IM injection of Prevnam 13™ on Day 1 (Vaccination 1) and a single 0.5 mL IM injection of PNEUMOVAX™23 at Month 12 (Vaccination 2)

Reporting group values	V114	Prevnam 13™	Total
Number of subjects	327	325	652
Age categorical			
Units: Subjects			
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)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	163	162	325
From 65-84 years	163	158	321
85 years and over	1	5	6
Age Continuous			
Units: years			
arithmetic mean	64.0	64.1	-
standard deviation	± 8.0	± 8.4	-
Sex: Female, Male			
Units:			
Female	190	181	371
Male	137	144	281
Race (NIH/OMB)			
Units: Subjects			
American Indian or Alaska Native	0	0	0
Asian	103	103	206
Native Hawaiian or Other Pacific Islander	0	0	0
Black or African American	18	22	40
White	203	198	401
More than one race	2	2	4
Unknown or Not Reported	1	0	1
Ethnicity (NIH/OMB)			
Units: Subjects			
Hispanic or Latino	42	37	79
Not Hispanic or Latino	283	287	570
Unknown or Not Reported	2	1	3

End points

End points reporting groups

Reporting group title	V114
Reporting group description:	
Participants were to receive a single 0.5 mL intramuscular (IM) injection of V114 on Day 1 (Vaccination 1) and a single 0.5 mL IM injection of PNEUMOVAX™23 at Month 12 (Vaccination 2)	
Reporting group title	Prevnam 13™
Reporting group description:	
Participants were to receive a single 0.5 mL IM injection of Prevnam 13™ on Day 1 (Vaccination 1) and a single 0.5 mL IM injection of PNEUMOVAX™23 at Month 12 (Vaccination 2)	

Primary: Percentage of Participants with Solicited Injection-site Adverse Events Following V114 or Prevnam 13™

End point title	Percentage of Participants with Solicited Injection-site Adverse Events Following V114 or Prevnam 13™
End point description:	
An adverse event (AE) is any untoward medical occurrence in a patient or clinical study participant, temporally associated with the use of study treatment, whether or not considered related to the study treatment. Following vaccination with V114 or Prevnam 13™, the percentage of participants with solicited injection-site AEs was assessed. The solicited injection-site AEs assessed were redness/erythema, swelling, and tenderness/pain. The analysis population included all randomized participants who received the relevant study vaccination for the timepoint of interest. (In the Prevnam 13™ group, 324 were vaccinated with Prevnam 13™; 1 was incorrectly vaccinated with V114.)	
End point type	Primary
End point timeframe:	
Up to 5 days after Vaccination 1	

End point values	V114	Prevnam 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	327	324		
Units: Percentage of Participants				
number (not applicable)				
Injection site redness/erythema	9.8	5.6		
Injection site tenderness/pain	55.0	41.4		
Injection site swelling	16.2	11.4		

Statistical analyses

Statistical analysis title	Injection site redness/erythema
Comparison groups	V114 v Prevnam 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.043
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	4.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.1
upper limit	8.5

Statistical analysis title	Injection site tenderness/pain
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	13.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	6
upper limit	21.2

Statistical analysis title	Injection site swelling
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.077
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	4.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.5
upper limit	10.2

Primary: Percentage of Participants with Solicited Injection-site Adverse Events

Following PNEUMOVAX™23

End point title	Percentage of Participants with Solicited Injection-site Adverse Events Following PNEUMOVAX™23
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End point description:

An adverse event (AE) is any untoward medical occurrence in a patient or clinical study participant, temporally associated with the use of study treatment, whether or not considered related to the study treatment. Following vaccination with PNEUMOVAX™23, the percentage of participants with solicited injection-site adverse events was assessed. The solicited injection-site AEs assessed were redness/erythema, swelling, and tenderness/pain. The analysis population included all randomized participants who received the relevant study vaccination for the timepoint of interest.

End point type	Primary
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End point timeframe:

Up to 5 days after Vaccination 2

End point values	V114	Pevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	298	302		
Units: Percentage of Participants				
number (not applicable)				
Injection site redness/erythema	17.4	16.9		
Injection site tenderness/pain	62.1	58.6		
Injection site swelling	28.2	26.2		

Statistical analyses

Statistical analysis title	Injection site redness/erythema
Comparison groups	V114 v Pevnar 13™
Number of subjects included in analysis	600
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.855
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	0.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.5
upper limit	6.6

Statistical analysis title	Injection site tenderness/pain
Comparison groups	V114 v Pevnar 13™

Number of subjects included in analysis	600
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.385
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	3.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.4
upper limit	11.3

Statistical analysis title	Injection site swelling
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	600
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.577
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.1
upper limit	9.2

Primary: Percentage of Participants with Solicited Systemic Adverse Events Following V114 or Prevnar 13™

End point title	Percentage of Participants with Solicited Systemic Adverse Events Following V114 or Prevnar 13™
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End point description:

An AE is any untoward medical occurrence in a patient or clinical study participant, temporally associated with the use of study treatment, whether or not considered related to the study treatment. Following vaccination with V114 or Prevnar 13™, the percentage of participants with solicited systemic AEs was assessed. The solicited systemic AEs assessed were muscle pain/myalgia, joint pain/arthritis, headache, and tiredness/fatigue. The analysis population included all randomized participants who received the relevant study vaccination for the timepoint of interest. (In the Prevnar 13™ group, 324 were vaccinated with Prevnar 13™; 1 was incorrectly vaccinated with V114.)

End point type	Primary
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End point timeframe:

Up to 14 days after Vaccination 1

End point values	V114	Pprevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	327	324		
Units: Percentage of Participants				
number (not applicable)				
Joint pain/arthritis	6.4	5.2		
Tiredness/fatigue	23.5	13.9		
Headache	14.1	12.7		
Muscle pain/myalgia	17.7	11.1		

Statistical analyses

Statistical analysis title	Joint pain/arthritis
Comparison groups	V114 v Pprevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.523
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	1.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.5
upper limit	4.9

Statistical analysis title	Tiredness/fatigue
Comparison groups	V114 v Pprevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.002
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	9.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	3.7
upper limit	15.6

Statistical analysis title	Headache
Comparison groups	V114 v Pprevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.597
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	1.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.9
upper limit	6.7

Statistical analysis title	Muscle pain/myalgia
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.016
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	6.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.2
upper limit	12.1

Primary: Percentage of Participants with Solicited Systemic Adverse Events Following PNEUMOVAX™23

End point title	Percentage of Participants with Solicited Systemic Adverse Events Following PNEUMOVAX™23
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End point description:

An AE is any untoward medical occurrence in a patient or clinical study participant, temporally associated with the use of study treatment, whether or not considered related to the study treatment. Following vaccination with PNEUMOVAX™23, the percentage of participants with solicited systemic AEs was assessed. The solicited systemic AEs assessed were muscle pain/myalgia, joint pain/arthralgia, headache, and tiredness/fatigue. The analysis population included all randomized participants who received the relevant study vaccination for the timepoint of interest.

End point type	Primary
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End point timeframe:

Up to 14 days after Vaccination 2

End point values	V114	Pprevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	298	302		
Units: Percentage of Participants				
number (not applicable)				
Joint pain/arthritis	8.4	8.3		
Tiredness/fatigue	25.8	21.9		
Headache	12.1	12.6		
Muscle pain/myalgia	21.5	16.6		

Statistical analyses

Statistical analysis title	Joint pain/arthritis
Comparison groups	V114 v Pprevnar 13™
Number of subjects included in analysis	600
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.961
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	0.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.4
upper limit	4.7

Statistical analysis title	Tiredness/fatigue
Comparison groups	V114 v Pprevnar 13™
Number of subjects included in analysis	600
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.252
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.8
upper limit	10.8

Statistical analysis title	Headache
Comparison groups	V114 v Pprevnar 13™

Number of subjects included in analysis	600
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.852
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	-0.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.8
upper limit	4.8

Statistical analysis title	Muscle pain/myalgia
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	600
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.125
Method	Miettinen & Nurminen
Parameter estimate	Difference in Percent
Point estimate	4.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.4
upper limit	11.2

Primary: Percentage of Participants with Vaccine-related Serious Adverse Events Following V114 or Prevnar 13™

End point title	Percentage of Participants with Vaccine-related Serious Adverse Events Following V114 or Prevnar 13™
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End point description:

A serious adverse event (SAE) is an AE that is life-threatening, requires or prolongs an existing hospitalization, results in persistent or significant disability or incapacity, is a congenital anomaly or birth defect, or is another important medical event deemed such by medical or scientific judgment. Relatedness of an SAE to the study vaccine was determined by the investigator. Following vaccination with V114 or Prevnar 13™, the percentage of participants with vaccine-related serious adverse events was assessed. The analysis population included all randomized participants who received the relevant study vaccination for the timepoint of interest. (In the Prevnar 13™ group, 324 were vaccinated with Prevnar 13™; 1 was incorrectly vaccinated with V114.)

End point type	Primary
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End point timeframe:

Up to 12 Months after Vaccination 1

End point values	V114	Pprevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	327	324		
Units: Percentage of Participants				
number (not applicable)	0.0	0.0		

Statistical analyses

Statistical analysis title	SAEs following V114 or Pprevnar 13™
Comparison groups	V114 v Pprevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.2
upper limit	1.2

Primary: Percentage of Participants with Vaccine-related Serious Adverse Events Following PNEUMOVAX™23

End point title	Percentage of Participants with Vaccine-related Serious Adverse Events Following PNEUMOVAX™23
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End point description:

A serious adverse event (SAE) is an AE that is life-threatening, requires or prolongs an existing hospitalization, results in persistent or significant disability or incapacity, is a congenital anomaly or birth defect, or is another important medical event deemed such by medical or scientific judgment. Relatedness of an SAE to the study vaccine was determined by the investigator. Following vaccination with PNEUMOVAX™23, the percentage of participants with vaccine-related serious adverse events was assessed. The analysis population included all randomized participants who received the relevant study vaccination for the timepoint of interest.

End point type	Primary
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End point timeframe:

Up to 44 days after Vaccination 2 (Month 12 to Month 13)

End point values	V114	Pprevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	298	302		
Units: Percentage of Participants				
number (not applicable)	0.0	0.0		

Statistical analyses

Statistical analysis title	SAEs following PNEUMOVAX™23
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	600
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.3
upper limit	1.3

Primary: Geometric Mean Titer of Serotype-specific Opsonophagocytic Activity at 30 Days Following PNEUMOVAX™23

End point title	Geometric Mean Titer of Serotype-specific Opsonophagocytic Activity at 30 Days Following PNEUMOVAX™23
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End point description:

Serotype-specific opsonophagocytic activity (OPA) geometric mean titers (GMTs) (estimated) and GMT ratios with 95% confidence intervals (CIs) were calculated using a constrained longitudinal data analysis (CLDA) model utilizing data from both vaccination groups. Per the statistical analysis plan, the only CIs calculated were the between-group CIs (for the GMT ratios); within-group CIs were not calculated. OPA for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using a Multiplexed Opsonophagocytic Assay. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.

End point type	Primary
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End point timeframe:

Month 13 (30 days after Vaccination 2)

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Titers				
number (not applicable)				
Serotype 1 (Shared) (n=321, 323)	392.2	283.2		
Serotype 3 (Shared) (n=321, 322)	282.6	262.8		
Serotype 4 (Shared) (n=321, 323)	1671.9	1580.4		
Serotype 5 (Shared) (n=321, 323)	705.5	583.9		
Serotype 6A (Shared) (n=321, 323)	3261.5	2806.8		
Serotype 6B (Shared) (n=321, 323)	3223.9	2872.0		
Serotype 7F (Shared) (n=321, 322)	5125.6	4848.0		
Serotype 9V (Shared) (n=321, 323)	2059.5	1872.0		
Serotype 14 (Shared) (n=321, 323)	3370.9	2660.5		
Serotype 18C (Shared) (n=321, 323)	2379.6	2103.9		
Serotype 19A (Shared) (n=321, 323)	3657.1	3170.8		

Serotype 19F (Shared) (n=321, 323)	2229.7	2156.2		
Serotype 23F (Shared) (n=320, 323)	1894.2	1485.1		
Serotype 22F (Unique to V114) (n=321, 323)	3124.4	1921.6		
Serotype 33F (Unique to V114) (n=321, 323)	7881.6	8269.9		

Statistical analyses

Statistical analysis title	Serotype 1 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.38
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.1
upper limit	1.74

Statistical analysis title	Serotype 3 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.08
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.9
upper limit	1.29

Statistical analysis title	Serotype 4 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.06

Confidence interval	
level	95 %
sides	2-sided
lower limit	0.85
upper limit	1.32

Statistical analysis title	Serotype 5 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.21
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.94
upper limit	1.56

Statistical analysis title	Serotype 6A (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.16
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.95
upper limit	1.43

Statistical analysis title	Serotype 6B (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.12
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.93
upper limit	1.35

Statistical analysis title	Serotype 7F (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.9
upper limit	1.25

Statistical analysis title	Serotype 9V (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.91
upper limit	1.33

Statistical analysis title	Serotype 14 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.27
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.05
upper limit	1.53

Statistical analysis title	Serotype 18C (Shared)
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Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.13
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.95
upper limit	1.34

Statistical analysis title	Serotype 19A (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.15
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.96
upper limit	1.38

Statistical analysis title	Serotype 19F (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.03
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.89
upper limit	1.2

Statistical analysis title	Serotype 23F (Shared)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.28
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.01
upper limit	1.61

Statistical analysis title	Serotype 22F (Unique to V114)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.63
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.29
upper limit	2.06

Statistical analysis title	Serotype 33F (Unique to V114)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	0.95
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.77
upper limit	1.17

Secondary: Geometric Mean Concentration of Serotype-specific Immunoglobulin G at 30 Days Following PNEUMOVAX™23

End point title	Geometric Mean Concentration of Serotype-specific Immunoglobulin G at 30 Days Following PNEUMOVAX™23
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End point description:

Serotype-specific Immunoglobulin G (IgG) geometric mean concentrations (GMCs) (estimated) and GMC ratios with 95% confidence intervals (CIs) were calculated using a constrained longitudinal data analysis (cLDA) model utilizing data from both vaccination groups. Per the statistical analysis plan, the only CIs

calculated were the between-group CIs (for the GMC ratios); within-group CIs were not calculated. IgG for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using an electrochemiluminescence assay. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.

End point type	Secondary
End point timeframe:	
Month 13 (30 days after Vaccination 2)	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: µg/mL				
number (not applicable)				
Serotype 1 (Shared) (n=321, 323)	5.21	5.68		
Serotype 3 (Shared) (n=321, 323)	1.05	1.05		
Serotype 4 (Shared) (n=321, 323)	1.99	2.29		
Serotype 5 (Shared) (n=321, 323)	5.77	5.82		
Serotype 6A (Shared) (n=321, 323)	4.97	4.28		
Serotype 6B (Shared) (n=321, 323)	6.71	5.77		
Serotype 7F (Shared) (n=321, 323)	5.99	6.06		
Serotype 9V (Shared) (n=321, 323)	4.96	4.75		
Serotype 14 (Shared) (n=321, 323)	14.82	12.72		
Serotype 18C (Shared) (n=321, 323)	7.31	6.29		
Serotype 19A (Shared) (n=321, 323)	13.10	11.88		
Serotype 19F (Shared) (n=321, 323)	9.38	8.62		
Serotype 23F (Shared) (n=321, 323)	4.83	4.24		
Serotype 22F (Unique to V114) (n=321, 323)	4.85	3.39		
Serotype 33F (Unique to V114) (n=321, 323)	10.60	13.30		

Statistical analyses

Statistical analysis title	Serotype 1 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.92
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.79
upper limit	1.07

Statistical analysis title	Serotype 3 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.87
upper limit	1.16

Statistical analysis title	Serotype 4 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.87
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.74
upper limit	1.02

Statistical analysis title	Serotype 5 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.99
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.84
upper limit	1.18

Statistical analysis title	Serotype 6A (Shared)
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Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.16
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.96
upper limit	1.41

Statistical analysis title	Serotype 6B (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.16
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.96
upper limit	1.4

Statistical analysis title	Serotype 7F (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.99
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.85
upper limit	1.16

Statistical analysis title	Serotype 9V (Shared)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.04
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.89
upper limit	1.22

Statistical analysis title	Serotype 14 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.17
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.98
upper limit	1.39

Statistical analysis title	Serotype 18C (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.16
Confidence interval	
level	95 %
sides	2-sided
lower limit	1
upper limit	1.36

Statistical analysis title	Serotype 19A (Shared)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.95
upper limit	1.29

Statistical analysis title	Serotype 19F (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.09
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.93
upper limit	1.27

Statistical analysis title	Serotype 23F (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.14
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.96
upper limit	1.35

Statistical analysis title	Serotype 22F (Unique to V114)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.43
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.16
upper limit	1.77

Statistical analysis title	Serotype 33F (Unique to V114)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.67
upper limit	0.95

Secondary: GMT of Serotype-specific OPA at Day 30

End point title	GMT of Serotype-specific OPA at Day 30
End point description:	
<p>Serotype-specific OPA GMTs (estimated) and GMT ratios with 95% CIs were calculated using a constrained longitudinal data analysis (cLDA) model utilizing data from both vaccination groups. Per the statistical analysis plan, the only CIs calculated were the between-group CIs (for the GMT ratios); within-group CIs were not calculated. OPA for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using a Multiplexed Opsonophagocytic Assay. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.</p>	
End point type	Secondary
End point timeframe:	
Day 30	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Titer				
number (not applicable)				
Serotype 1 (Shared) (n=321, 323)	361.6	296.2		

Serotype 3 (Shared) (n=321, 322)	245.4	129.4		
Serotype 4 (Shared) (n=321, 323)	1280.4	1685.9		
Serotype 5 (Shared) (n=321, 323)	699.0	655.9		
Serotype 6A (Shared) (n=321, 323)	7352.8	6184.2		
Serotype 6B (Shared) (n=321, 323)	5958.1	3631.2		
Serotype 7F (Shared) (n=321, 322)	4966.9	5207.6		
Serotype 9V (Shared) (n=321, 323)	2329.9	2293.0		
Serotype 14 (Shared) (n=321, 323)	2677.3	2458.1		
Serotype 18C (Shared) (n=321, 323)	4298.2	2896.3		
Serotype 19A (Shared) (n=321, 323)	4856.1	3783.0		
Serotype 19F (Shared) (n=321, 323)	2418.8	2203.5		
Serotype 23F (Shared) (n=320, 323)	2648.7	1726.9		
Serotype 22F (Unique to V114) (n=321, 323)	3471.1	99.6		
Serotype 33F (Unique to V114) (n=321, 323)	11392.4	1244.7		

Statistical analyses

Statistical analysis title	Serotype 1 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.22
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.94
upper limit	1.58

Statistical analysis title	Serotype 3 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.56
upper limit	2.3

Statistical analysis title	Serotype 4 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	0.76
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.6
upper limit	0.97

Statistical analysis title	Serotype 5 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.07
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.81
upper limit	1.4

Statistical analysis title	Serotype 6A (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.19
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.92
upper limit	1.53

Statistical analysis title	Serotype 6B (Shared)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.64
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.31
upper limit	2.06

Statistical analysis title	Serotype 7F (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	0.95
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.8
upper limit	1.14

Statistical analysis title	Serotype 9V (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.02
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.83
upper limit	1.24

Statistical analysis title	Serotype 14 (Shared)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.09
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.87
upper limit	1.37

Statistical analysis title	Serotype 18C (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.48
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.2
upper limit	1.84

Statistical analysis title	Serotype 19A (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.28
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.06
upper limit	1.55

Statistical analysis title	Serotype 19F (Shared)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.92
upper limit	1.32

Statistical analysis title	Serotype 23F (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.53
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.18
upper limit	2

Statistical analysis title	Serotype 22F (Unique to V114)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	34.86
Confidence interval	
level	95 %
sides	2-sided
lower limit	26.13
upper limit	46.5

Statistical analysis title	Serotype 33F (Unique to V114)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	9.15
Confidence interval	
level	95 %
sides	2-sided
lower limit	7.48
upper limit	11.2

Secondary: GMC of Serotype-specific IgG at Day 30

End point title	GMC of Serotype-specific IgG at Day 30
End point description:	
<p>Serotype-specific IgG GMC (estimated) and GMC ratios with 95% CIs were calculated using a constrained longitudinal data analysis (cLDA) model utilizing data from both vaccination groups. Per the statistical analysis plan, the only CIs calculated were the between-group CIs (for the GMC ratios); within-group CIs were not calculated. IgG for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using an electrochemiluminescence assay. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.</p>	
End point type	Secondary
End point timeframe:	
Day 30	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: µg/mL				
number (not applicable)				
Serotype 1 (Shared) (n=321, 323)	6.97	7.86		
Serotype 3 (Shared) (n=321, 323)	1.02	0.59		
Serotype 4 (Shared) (n=321, 323)	2.36	2.98		
Serotype 5 (Shared) (n=321, 323)	5.43	5.21		
Serotype 6A (Shared) (n=321, 323)	11.48	8.22		
Serotype 6B (Shared) (n=321, 323)	13.69	8.35		
Serotype 7F (Shared) (n=321, 323)	7.14	7.82		
Serotype 9V (Shared) (n=321, 323)	6.10	5.39		
Serotype 14 (Shared) (n=321, 323)	12.68	11.59		
Serotype 18C (Shared) (n=321, 323)	16.67	10.66		
Serotype 19A (Shared) (n=321, 323)	18.59	16.48		
Serotype 19F (Shared) (n=321, 323)	12.00	10.53		
Serotype 23F (Shared) (n=321, 323)	9.76	6.07		
Serotype 22F (Unique to V114) (n=321, 323)	5.07	0.31		
Serotype 33F (Unique to V114) (n=321, 323)	14.31	1.12		

Statistical analyses

Statistical analysis title	Serotype 1 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.89
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.72
upper limit	1.09

Statistical analysis title	Serotype 3 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.74
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.46
upper limit	2.07

Statistical analysis title	Serotype 4 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.79
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.64
upper limit	0.99

Statistical analysis title	Serotype 5 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.04
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.84
upper limit	1.3

Statistical analysis title	Serotype 6A (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.1
upper limit	1.77

Statistical analysis title	Serotype 6B (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.64
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.28
upper limit	2.1

Statistical analysis title	Serotype 7F (Shared)
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Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.91
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.74
upper limit	1.13

Statistical analysis title	Serotype 9V (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.13
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.91
upper limit	1.41

Statistical analysis title	Serotype 14 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.09
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.87
upper limit	1.38

Statistical analysis title	Serotype 18C (Shared)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.56
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.27
upper limit	1.92

Statistical analysis title	Serotype 19A (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.13
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.91
upper limit	1.39

Statistical analysis title	Serotype 19F (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.14
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.92
upper limit	1.41

Statistical analysis title	Serotype 23F (Shared)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.61
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.27
upper limit	2.04

Statistical analysis title	Serotype 22F (Unique to V114)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	16.54
Confidence interval	
level	95 %
sides	2-sided
lower limit	13.78
upper limit	19.86

Statistical analysis title	Serotype 33F (Unique to V114)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	12.82
Confidence interval	
level	95 %
sides	2-sided
lower limit	10.82
upper limit	15.19

Secondary: Geometric Mean Fold Rise in Serotype-specific OPA Day 1 to Day 30

End point title	Geometric Mean Fold Rise in Serotype-specific OPA Day 1 to Day 30
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End point description:

Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using a Multiplexed Opsonophagocytic Assay. Geometric mean fold rise (GMFR) is the geometric mean of fold rise from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could

have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.

End point type	Secondary
End point timeframe:	
Day 1 (Baseline) and Day 30	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype 1 (Shared) (n=307, 314)	22.3 (18.5 to 26.9)	16.7 (13.8 to 20.2)		
Serotype 3 (Shared) (n=305, 313)	8.0 (6.9 to 9.2)	4.4 (3.8 to 5.1)		
Serotype 4 (Shared) (n=305, 312)	18.3 (15.0 to 22.4)	23.3 (19.3 to 28.3)		
Serotype 5 (Shared) (n=310, 315)	17.2 (14.2 to 20.9)	16.2 (13.3 to 19.7)		
Serotype 6A (Shared) (n=279, 283)	17.4 (14.2 to 21.2)	13.9 (11.5 to 16.8)		
Serotype 6B (Shared) (n=302, 306)	28.5 (23.1 to 35.2)	18.4 (14.9 to 22.7)		
Serotype 7F (Shared) (n=296, 296)	10.7 (8.7 to 13.0)	10.5 (8.5 to 13.1)		
Serotype 9V (Shared) (n=299, 310)	6.1 (5.2 to 7.1)	5.6 (4.7 to 6.5)		
Serotype 14 (Shared) (n=304, 308)	6.6 (5.4 to 8.0)	6.0 (4.9 to 7.4)		
Serotype 18C (Shared) (n=301, 310)	18.1 (15.1 to 21.7)	12.2 (10.2 to 14.5)		
Serotype 19A (Shared) (n=301, 309)	13.4 (11.1 to 16.3)	10.0 (8.4 to 12.0)		
Serotype 19F (Shared) (n=298, 308)	7.8 (6.7 to 9.2)	6.4 (5.5 to 7.5)		
Serotype 23F (Shared) (n=284, 288)	18.8 (15.2 to 23.1)	12.2 (9.8 to 15.2)		
Serotype 22F (Unique to V114) (n=250, 249)	32.5 (24.2 to 43.6)	1.1 (0.8 to 1.4)		
Serotype 33F (Unique to V114) (n=305, 298)	8.3 (6.7 to 10.1)	0.9 (0.8 to 1.0)		

Statistical analyses

No statistical analyses for this end point

Secondary: GMFR in Serotype-specific IgG Day 1 to Day 30

End point title	GMFR in Serotype-specific IgG Day 1 to Day 30
End point description:	

Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using an electrochemiluminescence assay. GMFR is the geometric mean of fold rise from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.

End point type	Secondary
End point timeframe:	
Day 1 (Baseline) and Day 30	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype 1 (Shared) (n=311, 318)	13.0 (11.0 to 15.3)	14.4 (12.3 to 16.8)		
Serotype 3 (Shared) (n=311, 318)	6.7 (5.8 to 7.8)	3.9 (3.4 to 4.3)		
Serotype 4 (Shared) (n=311, 318)	10.1 (8.6 to 11.9)	12.4 (10.6 to 14.5)		
Serotype 5 (Shared) (n=311, 318)	5.6 (4.8 to 6.5)	5.2 (4.4 to 6.2)		
Serotype 6A (Shared) (n=311, 318)	30.2 (25.3 to 36.1)	20.8 (17.5 to 24.6)		
Serotype 6B (Shared) (n=311, 318)	28.2 (23.4 to 34.1)	17.1 (14.4 to 20.4)		
Serotype 7F (Shared) (n=311, 318)	13.6 (11.5 to 16.1)	14.3 (12.1 to 17.0)		
Serotype 9V (Shared) (n=311, 318)	11.7 (9.9 to 13.9)	10.3 (8.8 to 12.0)		
Serotype 14 (Shared) (n=311, 318)	6.6 (5.4 to 7.9)	6.3 (5.3 to 7.5)		
Serotype 18C (Shared) (n=311, 318)	22.4 (18.7 to 26.7)	13.7 (11.6 to 16.2)		
Serotype 19A (Shared) (n=311, 318)	11.3 (9.5 to 13.5)	9.5 (8.1 to 11.1)		
Serotype 19F (Shared) (n=311, 317)	14.2 (12.0 to 16.9)	11.9 (10.2 to 14.0)		
Serotype 23F (Shared) (n=311, 318)	17.7 (14.7 to 21.3)	11.0 (9.3 to 13.1)		
Serotype 22F (Unique to V114) (n=311, 318)	14.9 (12.4 to 18.0)	0.9 (0.9 to 1.0)		
Serotype 33F (Unique to V114) (n=311, 318)	11.1 (9.3 to 13.1)	0.8 (0.8 to 0.9)		

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants with ≥4-Fold Rise in Serotype-specific OPA Titer Day 1 to Day 30

End point title	Percentage of Participants with ≥4-Fold Rise in Serotype-specific OPA Titer Day 1 to Day 30
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End point description:

Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using a Multiplexed Opsonophagocytic Assay. The percentage of participants who had ≥4-fold rise in OPA titers were calculated from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had

sufficient data to perform the analyses.

End point type	Secondary
End point timeframe:	
Day 1 (Baseline) and Day 30	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Percentage of Participants				
number (confidence interval 95%)				
Serotype 1 (Shared) (n=307, 314)	83.4 (78.7 to 87.4)	76.1 (71.0 to 80.7)		
Serotype 3 (Shared) (n=305, 313)	72.1 (66.7 to 77.1)	51.1 (45.4 to 56.8)		
Serotype 4 (Shared) (n=305, 312)	79.3 (74.4 to 83.7)	84.6 (80.1 to 88.4)		
Serotype 5 (Shared) (n=310, 315)	76.8 (71.7 to 81.4)	79.0 (74.1 to 83.4)		
Serotype 6A (Shared) (n=279, 283)	79.2 (74.0 to 83.8)	78.1 (72.8 to 82.8)		
Serotype 6B (Shared) (n=302, 306)	83.4 (78.8 to 87.5)	76.1 (71.0 to 80.8)		
Serotype 7F (Shared) (n=296, 296)	67.2 (61.6 to 72.5)	65.9 (60.2 to 71.3)		
Serotype 9V (Shared) (n=299, 310)	61.2 (55.4 to 66.8)	56.8 (51.1 to 62.4)		
Serotype 14 (Shared) (n=304, 308)	53.0 (47.2 to 58.7)	53.2 (47.5 to 58.9)		
Serotype 18C (Shared) (n=301, 310)	83.4 (78.7 to 87.4)	74.2 (68.9 to 79.0)		
Serotype 19A (Shared) (n=301, 309)	70.4 (64.9 to 75.5)	69.6 (64.1 to 74.7)		
Serotype 19F (Shared) (n=298, 308)	63.4 (57.7 to 68.9)	56.2 (50.4 to 61.8)		
Serotype 23F (Shared) (n=284, 288)	79.2 (74.0 to 83.8)	70.8 (65.2 to 76.0)		
Serotype 22F (Unique to V114) (n=250, 249)	72.8 (66.8 to 78.2)	16.5 (12.1 to 21.7)		
Serotype 33F (Unique to V114) (n=305, 298)	61.3 (55.6 to 66.8)	3.0 (1.4 to 5.7)		

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants with ≥4-Fold Rise in Serotype-specific IgG Concentration Day 1 to Day 30

End point title	Percentage of Participants with ≥4-Fold Rise in Serotype-specific IgG Concentration Day 1 to Day 30
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End point description:

Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using an electrochemiluminescence assay. The

percentage of participants who had ≥ 4 -fold rise in IgG concentration are calculated from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.

End point type	Secondary
End point timeframe:	
Day 1 (Baseline) and Day 30	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Percentage of Participants				
number (confidence interval 95%)				
Serotype 1 (Shared) (n=311, 318)	74.9 (69.7 to 79.6)	80.8 (76.1 to 85.0)		
Serotype 3 (Shared) (n=311, 318)	62.4 (56.7 to 67.8)	42.8 (37.3 to 48.4)		
Serotype 4 (Shared) (n=311, 318)	71.4 (66.0 to 76.3)	74.2 (69.0 to 78.9)		
Serotype 5 (Shared) (n=311, 318)	52.4 (46.7 to 58.1)	49.4 (43.7 to 55.0)		
Serotype 6A (Shared) (n=311, 318)	88.4 (84.3 to 91.8)	84.3 (79.8 to 88.1)		
Serotype 6B (Shared) (n=311, 318)	85.5 (81.1 to 89.2)	77.4 (72.4 to 81.8)		
Serotype 7F (Shared) (n=311, 318)	76.8 (71.8 to 81.4)	75.5 (70.4 to 80.1)		
Serotype 9V (Shared) (n=311, 318)	73.0 (67.7 to 77.8)	70.4 (65.1 to 75.4)		
Serotype 14 (Shared) (n=311, 318)	54.0 (48.3 to 59.7)	56.0 (50.3 to 61.5)		
Serotype 18C (Shared) (n=311, 318)	83.9 (79.4 to 87.8)	75.5 (70.4 to 80.1)		
Serotype 19A (Shared) (n=311, 318)	71.4 (66.0 to 76.3)	69.2 (63.8 to 74.2)		
Serotype 19F (Shared) (n=311, 317)	77.5 (72.4 to 82.0)	76.3 (71.3 to 80.9)		
Serotype 23F (Shared) (n=311, 318)	79.7 (74.8 to 84.1)	70.1 (64.8 to 75.1)		
Serotype 22F (Unique to V114) (n=311, 318)	76.8 (71.8 to 81.4)	0.9 (0.2 to 2.7)		
Serotype 33F (Unique to V114) (n=311, 318)	71.1 (65.7 to 76.0)	0.6 (0.1 to 2.3)		

Statistical analyses

No statistical analyses for this end point

Secondary: GMT of Serotype-specific OPA at Month 12

End point title	GMT of Serotype-specific OPA at Month 12
End point description:	
Serotype-specific OPA GMTs (estimated) and GMT ratios with 95% CIs were calculated using a	

constrained longitudinal data analysis (cLDA) model utilizing data from both vaccination groups. Per the statistical analysis plan, the only CIs calculated were the between-group CIs (for the GMT ratios); within-group CIs were not calculated. OPA for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using a Multiplexed Opsonophagocytic Assay. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.

End point type	Secondary
End point timeframe:	
Month 12	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Titer				
number (not applicable)				
Serotype 1 (Shared) (n=321, 323)	138.2	116.2		
Serotype 3 (Shared) (n=321, 322)	88.3	56.3		
Serotype 4 (Shared) (n=321, 323)	477.2	666.5		
Serotype 5 (Shared) (n=321, 323)	213.4	209.6		
Serotype 6A (Shared) (n=321, 323)	2421.7	2111.3		
Serotype 6B (Shared) (n=321, 323)	2079.7	1453.7		
Serotype 7F (Shared) (n=321, 322)	2161.8	2291.1		
Serotype 9V (Shared) (n=321, 323)	1006.8	1030.5		
Serotype 14 (Shared) (n=321, 323)	1543.8	1395.1		
Serotype 18C (Shared) (n=321, 323)	1520.4	1191.8		
Serotype 19A (Shared) (n=321, 323)	1724.3	1575.3		
Serotype 19F (Shared) (n=321, 323)	948.4	876.0		
Serotype 23F (Shared) (n=320, 323)	984.7	720.3		
Serotype 22F (Unique to V114) (n=321, 323)	1267.4	99.1		
Serotype 33F (Unique to V114) (n=321, 323)	4099.0	1266.6		

Statistical analyses

Statistical analysis title	Serotype 1 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.19
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.92
upper limit	1.53

Statistical analysis title	Serotype 3 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.57
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.29
upper limit	1.9

Statistical analysis title	Serotype 4 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	0.72
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.57
upper limit	0.9

Statistical analysis title	Serotype 5 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.02
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.78
upper limit	1.33

Statistical analysis title	Serotype 6A (Shared)
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Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.15
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.93
upper limit	1.41

Statistical analysis title	Serotype 6B (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.43
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.16
upper limit	1.77

Statistical analysis title	Serotype 7F (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	0.94
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.8
upper limit	1.11

Statistical analysis title	Serotype 9V (Shared)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	0.98
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.81
upper limit	1.18

Statistical analysis title	Serotype 14 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.11
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.9
upper limit	1.36

Statistical analysis title	Serotype 18C (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.28
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.05
upper limit	1.55

Statistical analysis title	Serotype 19A (Shared)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.09
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.91
upper limit	1.31

Statistical analysis title	Serotype 19F (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.08
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.91
upper limit	1.29

Statistical analysis title	Serotype 23F (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	1.37
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.06
upper limit	1.76

Statistical analysis title	Serotype 22F (Unique to V114)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	12.79
Confidence interval	
level	95 %
sides	2-sided
lower limit	9.44
upper limit	17.34

Statistical analysis title	Serotype 33F (Unique to V114)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	3.24
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.73
upper limit	3.84

Secondary: GMC of Serotype-specific IgG at Month 12

End point title	GMC of Serotype-specific IgG at Month 12
End point description:	
<p>Serotype-specific IgG GMC (estimated) and GMC ratios with 95% CIs were calculated using a constrained longitudinal data analysis (cLDA) model utilizing data from both vaccination groups. Per the statistical analysis plan, the only CIs calculated were the between-group CIs (for the GMC ratios); within-group CIs were not calculated. IgG for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using an electrochemiluminescence assay. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.</p>	
End point type	Secondary
End point timeframe:	
Month 12	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: µg/mL				
number (not applicable)				
Serotype 1 (Shared) (n=321, 323)	2.73	3.52		

Serotype 3 (Shared) (n=321, 323)	0.39	0.28		
Serotype 4 (Shared) (n=321, 323)	1.00	1.31		
Serotype 5 (Shared) (n=321, 323)	2.59	2.91		
Serotype 6A (Shared) (n=321, 323)	4.27	3.13		
Serotype 6B (Shared) (n=321, 323)	5.13	3.46		
Serotype 7F (Shared) (n=321, 323)	2.95	3.45		
Serotype 9V (Shared) (n=321, 323)	2.85	2.75		
Serotype 14 (Shared) (n=321, 323)	7.91	7.50		
Serotype 18C (Shared) (n=321, 323)	5.99	4.32		
Serotype 19A (Shared) (n=321, 323)	8.19	7.22		
Serotype 19F (Shared) (n=321, 323)	4.67	4.14		
Serotype 23F (Shared) (n=321, 323)	3.57	2.66		
Serotype 22F (Unique to V114) (n=321, 323)	2.07	0.33		
Serotype 33F (Unique to V114) (n=321, 323)	6.24	1.24		

Statistical analyses

Statistical analysis title	Serotype 1 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.78
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.65
upper limit	0.92

Statistical analysis title	Serotype 3 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.42
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.24
upper limit	1.63

Statistical analysis title	Serotype 4 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.77
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.64
upper limit	0.91

Statistical analysis title	Serotype 5 (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.89
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.75
upper limit	1.05

Statistical analysis title	Serotype 6A (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.37
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.12
upper limit	1.67

Statistical analysis title	Serotype 6B (Shared)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.48
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.21
upper limit	1.81

Statistical analysis title	Serotype 7F (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.86
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.72
upper limit	1.02

Statistical analysis title	Serotype 9V (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.04
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.88
upper limit	1.23

Statistical analysis title	Serotype 14 (Shared)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.05
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.88
upper limit	1.26

Statistical analysis title	Serotype 18C (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.38
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.17
upper limit	1.64

Statistical analysis title	Serotype 19A (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.13
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.97
upper limit	1.33

Statistical analysis title	Serotype 19F (Shared)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.13
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.96
upper limit	1.32

Statistical analysis title	Serotype 23F (Shared)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.35
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.12
upper limit	1.62

Statistical analysis title	Serotype 22F (Unique to V114)
Comparison groups	V114 v Prevnar 13™
Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	6.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	5.33
upper limit	7.21

Statistical analysis title	Serotype 33F (Unique to V114)
Comparison groups	V114 v Prevnar 13™

Number of subjects included in analysis	651
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	5.01
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.38
upper limit	5.73

Secondary: GMFR in Serotype-specific OPA Day 1 to Month 12

End point title	GMFR in Serotype-specific OPA Day 1 to Month 12
End point description:	
Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using a Multiplexed Opsonophagocytic Assay. Geometric mean fold rise (GMFR) is the geometric mean of fold rise from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.	
End point type	Secondary
End point timeframe:	
Day 1 (Baseline) and Month 12	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype 1 (Shared) (n=281, 277)	9.2 (7.7 to 11.1)	7.3 (6.1 to 8.7)		
Serotype 3 (Shared) (n=274, 276)	3.0 (2.6 to 3.5)	2.1 (1.9 to 2.4)		
Serotype 4 (Shared) (n=276, 277)	7.0 (5.8 to 8.3)	9.4 (7.7 to 11.3)		
Serotype 5 (Shared) (n=281, 280)	5.5 (4.6 to 6.7)	5.7 (4.7 to 6.9)		
Serotype 6A (Shared) (n=255, 254)	5.7 (4.9 to 6.8)	4.9 (4.2 to 5.7)		
Serotype 6B (Shared) (n=272, 273)	10.4 (8.4 to 12.7)	7.3 (6.1 to 8.8)		
Serotype 7F (Shared) (n=270, 262)	4.6 (3.8 to 5.5)	4.9 (4.1 to 6.0)		
Serotype 9V (Shared) (n=272, 275)	2.7 (2.3 to 3.1)	2.7 (2.3 to 3.1)		
Serotype 14 (Shared) (n=274, 270)	3.9 (3.3 to 4.7)	3.5 (2.9 to 4.2)		
Serotype 18C (Shared) (n=275, 274)	6.5 (5.6 to 7.6)	5.2 (4.5 to 6.1)		
Serotype 19A (Shared) (n=269, 276)	4.9 (4.1 to 5.9)	4.3 (3.6 to 5.0)		
Serotype 19F (Shared) (n=267, 272)	3.0 (2.6 to 3.5)	2.8 (2.5 to 3.3)		
Serotype 23F (Shared) (n=255, 256)	7.1 (5.8 to 8.7)	5.1 (4.2 to 6.3)		
Serotype 22F (Unique to V114)(n=225, 213)	12.3 (9.3 to 16.3)	1.3 (1.0 to 1.6)		

Serotype 33F (Unique to V114) (n=278, 269)	3.0 (2.5 to 3.6)	0.9 (0.8 to 1.0)		
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Statistical analyses

No statistical analyses for this end point

Secondary: GMFR in Serotype-specific IgG Day 1 to Month 12

End point title	GMFR in Serotype-specific IgG Day 1 to Month 12
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End point description:

Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using an electrochemiluminescence assay. GMFR is the geometric mean of fold rise from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had data available for this endpoint and had sufficient data to perform the analyses.

End point type	Secondary
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End point timeframe:

Day 1 (Baseline) and Month 12

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype 1 (Shared) (n=282, 282)	5.2 (4.5 to 6.0)	6.6 (5.7 to 7.7)		
Serotype 3 (Shared) (n=282, 282)	2.6 (2.3 to 2.9)	1.8 (1.7 to 2.0)		
Serotype 4 (Shared) (n=282, 281)	4.3 (3.8 to 4.9)	5.5 (4.8 to 6.3)		
Serotype 5 (Shared) (n=282, 282)	2.7 (2.4 to 3.0)	3.0 (2.6 to 3.4)		
Serotype 6A (Shared) (n=282, 282)	11.1 (9.5 to 13.0)	8.1 (6.9 to 9.3)		
Serotype 6B (Shared) (n=282, 282)	10.3 (8.7 to 12.2)	7.2 (6.2 to 8.4)		
Serotype 7F (Shared) (n=282, 282)	5.5 (4.8 to 6.2)	6.4 (5.5 to 7.5)		
Serotype 9V (Shared) (n=282, 282)	5.6 (4.9 to 6.4)	5.4 (4.7 to 6.1)		
Serotype 14 (Shared) (n=282, 282)	3.9 (3.4 to 4.6)	4.1 (3.5 to 4.7)		
Serotype 18C (Shared) (n=282, 282)	8.0 (6.9 to 9.3)	5.6 (4.9 to 6.5)		
Serotype 19A (Shared) (n=282, 282)	4.9 (4.3 to 5.6)	4.3 (3.8 to 4.9)		
Serotype 19F (Shared) (n=281, 281)	5.2 (4.6 to 6.0)	4.9 (4.3 to 5.6)		
Serotype 23F (Shared) (n=282, 282)	6.6 (5.7 to 7.6)	4.9 (4.3 to 5.7)		
Serotype 22F (Unique to V114) (n=282, 282)	6.0 (5.1 to 7.0)	1.0 (0.9 to 1.1)		
Serotype 33F (Unique to V114) (n=282, 282)	4.7 (4.1 to 5.4)	0.9 (0.9 to 1.0)		

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants with ≥ 4 -Fold Rise in Serotype-specific OPA Titer Day 1 to Month 12

End point title	Percentage of Participants with ≥ 4 -Fold Rise in Serotype-specific OPA Titer Day 1 to Month 12
End point description:	
Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using a Multiplexed Opsonophagocytic Assay. The percentage of participants who had ≥ 4 -fold rise in OPA titers were calculated from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.	
End point type	Secondary
End point timeframe:	
Day 1 (Baseline) and Month 12	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Percentage of Participants				
number (confidence interval 95%)				
Serotype 1 (Shared) (n=281, 277)	69.4 (63.6 to 74.7)	61.4 (55.4 to 67.1)		
Serotype 3 (Shared) (n=274, 276)	39.4 (33.6 to 45.5)	25.7 (20.7 to 31.3)		
Serotype 4 (Shared) (n=276, 277)	63.0 (57.1 to 68.8)	67.1 (61.3 to 72.6)		
Serotype 5 (Shared) (n=281, 280)	58.4 (52.4 to 64.2)	57.5 (51.5 to 63.4)		
Serotype 6A (Shared) (n=255, 254)	61.2 (54.9 to 67.2)	54.3 (48.0 to 60.6)		
Serotype 6B (Shared) (n=272, 273)	68.8 (62.9 to 74.2)	60.4 (54.4 to 66.3)		
Serotype 7F (Shared) (n=270, 262)	50.4 (44.2 to 56.5)	48.9 (42.7 to 55.1)		
Serotype 9V (Shared) (n=272, 275)	34.6 (28.9 to 40.5)	32.0 (26.5 to 37.9)		
Serotype 14 (Shared) (n=274, 270)	41.6 (35.7 to 47.7)	42.2 (36.3 to 48.4)		
Serotype 18C (Shared) (n=275, 274)	63.3 (57.3 to 69.0)	54.4 (48.3 to 60.4)		
Serotype 19A (Shared) (n=269, 276)	53.2 (47.0 to 59.2)	47.5 (41.4 to 53.5)		
Serotype 19F (Shared) (n=267, 272)	41.2 (35.2 to 47.4)	35.3 (29.6 to 41.3)		

Serotype 23F (Shared) (n=255, 256)	62.4 (56.1 to 68.3)	53.5 (47.2 to 59.7)		
Serotype 22F (Unique to V114) (n=225, 213)	64.0 (57.4 to 70.3)	14.1 (9.7 to 19.5)		
Serotype 33F (Unique to V114) (n=278, 269)	34.5 (29.0 to 40.4)	4.8 (2.6 to 8.1)		

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants with ≥ 4 -Fold Rise in Serotype-specific IgG Concentration Day 1 to Month 12

End point title	Percentage of Participants with ≥ 4 -Fold Rise in Serotype-specific IgG Concentration Day 1 to Month 12
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End point description:

Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using an electrochemiluminescence assay. The percentage of participants who had ≥ 4 -fold rise in IgG concentration are calculated from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.

End point type	Secondary
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End point timeframe:

Day 1 (Baseline) and Month 12

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Percentage of Participants				
number (confidence interval 95%)				
Serotype 1 (Shared) (n=282, 282)	56.0 (50.0 to 61.9)	65.6 (59.7 to 71.1)		
Serotype 3 (Shared) (n=282, 282)	27.0 (21.9 to 32.5)	12.4 (8.8 to 16.8)		
Serotype 4 (Shared) (n=282, 281)	47.2 (41.2 to 53.2)	57.7 (51.6 to 63.5)		
Serotype 5 (Shared) (n=282, 282)	30.9 (25.5 to 36.6)	34.4 (28.9 to 40.3)		
Serotype 6A (Shared) (n=282, 282)	75.5 (70.1 to 80.4)	66.7 (60.8 to 72.1)		
Serotype 6B (Shared) (n=282, 282)	73.0 (67.5 to 78.1)	62.1 (56.1 to 67.7)		
Serotype 7F (Shared) (n=282, 282)	59.9 (54.0 to 65.7)	64.9 (59.0 to 70.5)		
Serotype 9V (Shared) (n=282, 282)	60.6 (54.7 to 66.4)	55.3 (49.3 to 61.2)		
Serotype 14 (Shared) (n=282, 282)	42.6 (36.7 to 48.6)	46.8 (40.9 to 52.8)		
Serotype 18C (Shared) (n=282, 282)	70.2 (64.5 to 75.5)	58.5 (52.5 to 64.3)		

Serotype 19A (Shared) (n=282, 282)	53.9 (47.9 to 59.8)	50.0 (44.0 to 56.0)		
Serotype 19F (Shared) (n=281, 281)	56.9 (50.9 to 62.8)	52.3 (46.3 to 58.3)		
Serotype 23F (Shared) (n=282, 282)	59.6 (53.6 to 65.4)	51.4 (45.4 to 57.4)		
Serotype 22F (Unique to V114) (n=282, 282)	58.9 (52.9 to 64.7)	1.8 (0.6 to 4.1)		
Serotype 33F (Unique to V114) (n=282, 282)	52.5 (46.5 to 58.4)	1.1 (0.2 to 3.1)		

Statistical analyses

No statistical analyses for this end point

Secondary: GMFR in Serotype-specific OPA Day 1 to Month 13

End point title	GMFR in Serotype-specific OPA Day 1 to Month 13
End point description:	
Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using a Multiplexed Opsonophagocytic Assay. Geometric mean fold rise (GMFR) is the geometric mean of fold rise from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.	
End point type	Secondary
End point timeframe:	
Day 1 (Baseline) and Month 13	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype 1 (Shared) (n=272, 269)	24.7 (20.7 to 29.4)	15.5 (12.9 to 18.5)		
Serotype 3 (Shared) (n=268, 267)	9.1 (7.9 to 10.5)	8.7 (7.5 to 10.0)		
Serotype 4 (Shared) (n=270, 268)	23.8 (19.5 to 29.2)	21.5 (17.5 to 26.3)		
Serotype 5 (Shared) (n=273, 272)	17.2 (14.1 to 21.1)	14.5 (12.0 to 17.5)		
Serotype 6A (Shared) (n=243, 245)	7.7 (6.5 to 9.2)	6.3 (5.4 to 7.3)		
Serotype 6B (Shared) (n=264, 266)	16.2 (13.3 to 19.8)	14.3 (11.7 to 17.4)		
Serotype 7F (Shared) (n=262, 254)	11.0 (9.0 to 13.4)	10.2 (8.2 to 12.5)		
Serotype 9V (Shared) (n=265, 266)	5.2 (4.5 to 6.1)	4.6 (3.9 to 5.3)		
Serotype 14 (Shared) (n=268, 264)	8.2 (6.8 to 9.8)	6.7 (5.6 to 8.0)		
Serotype 18C (Shared) (n=267, 266)	10.1 (8.6 to 11.7)	9.0 (7.7 to 10.4)		

Serotype 19A (Shared) (n=262, 267)	10.4 (8.5 to 12.6)	8.5 (7.2 to 10.2)		
Serotype 19F (Shared) (n=263, 264)	7.0 (6.0 to 8.1)	6.3 (5.5 to 7.2)		
Serotype 23F (Shared) (n=250, 249)	12.6 (10.3 to 15.5)	9.7 (7.8 to 12.0)		
Serotype 22F (Unique to V114) (n=224, 230)	30.2 (22.7 to 40.1)	16.2 (11.8 to 22.2)		
Serotype 33F (Unique to V114) (n=269, 258)	5.8 (4.8 to 7.0)	5.5 (4.5 to 6.7)		

Statistical analyses

No statistical analyses for this end point

Secondary: GMFR in Serotype-specific IgG Day 1 to Month 13

End point title	GMFR in Serotype-specific IgG Day 1 to Month 13
End point description:	
Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using an electrochemiluminescence assay. GMFR is the geometric mean of fold rise from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.	
End point type	Secondary
End point timeframe:	
Day 1 (Baseline) and Month 13	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype 1 (Shared) (n=273, 274)	9.9 (8.7 to 11.4)	10.5 (9.1 to 12.2)		
Serotype 3 (Shared) (n=273, 274)	6.9 (6.0 to 7.8)	6.7 (6.0 to 7.6)		
Serotype 4 (Shared) (n=273, 273)	8.6 (7.6 to 9.8)	9.5 (8.3 to 11.0)		
Serotype 5 (Shared) (n=273, 274)	5.9 (5.2 to 6.8)	5.9 (5.2 to 6.8)		
Serotype 6A (Shared) (n=273, 274)	13.1 (11.2 to 15.3)	10.8 (9.3 to 12.5)		
Serotype 6B (Shared) (n=273, 274)	13.7 (11.7 to 16.1)	11.9 (10.2 to 13.9)		
Serotype 7F (Shared) (n=273, 274)	11.1 (9.8 to 12.7)	11.2 (9.7 to 12.9)		
Serotype 9V (Shared) (n=273, 274)	9.8 (8.5 to 11.3)	9.2 (8.0 to 10.5)		
Serotype 14 (Shared) (n=273, 274)	7.4 (6.3 to 8.7)	6.9 (5.9 to 8.1)		
Serotype 18C (Shared) (n=273, 274)	9.8 (8.5 to 11.3)	8.2 (7.1 to 9.4)		
Serotype 19A (Shared) (n=273, 274)	7.9 (6.9 to 9.0)	7.0 (6.1 to 8.0)		

Serotype 19F (Shared) (n=273, 273)	10.7 (9.3 to 12.4)	10.0 (8.6 to 11.5)		
Serotype 23F (Shared) (n=273, 274)	9.1 (7.9 to 10.5)	7.6 (6.6 to 8.7)		
Serotype 22F (Unique to V114) (n=273, 274)	14.2 (12.0 to 16.7)	10.0 (8.4 to 12.0)		
Serotype 33F (Unique to V114) (n=273, 274)	8.1 (7.1 to 9.2)	10.1 (8.6 to 11.8)		

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants with ≥ 4 -Fold Rise in Serotype-specific OPA Titer Day 1 to Month 13

End point title	Percentage of Participants with ≥ 4 -Fold Rise in Serotype-specific OPA Titer Day 1 to Month 13
End point description:	
Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using a Multiplexed Opsonophagocytic Assay. The percentage of participants who had ≥ 4 -fold rise in OPA titers were calculated from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.	
End point type	Secondary
End point timeframe:	
Day 1 (Baseline) and Month 13	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Percentage of Participants				
number (confidence interval 95%)				
Serotype 1 (Shared) (n=272, 269)	87.9 (83.4 to 91.5)	78.8 (73.4 to 83.5)		
Serotype 3 (Shared) (n=268, 267)	78.7 (73.3 to 83.5)	76.0 (70.4 to 81.0)		
Serotype 4 (Shared) (n=270, 268)	83.7 (78.7 to 87.9)	84.3 (79.4 to 88.5)		
Serotype 5 (Shared) (n=273, 272)	79.9 (74.6 to 84.4)	80.9 (75.7 to 85.4)		
Serotype 6A (Shared) (n=243, 245)	68.3 (62.1 to 74.1)	64.5 (58.1 to 70.5)		
Serotype 6B (Shared) (n=264, 266)	78.0 (72.5 to 82.9)	77.1 (71.5 to 82.0)		
Serotype 7F (Shared) (n=262, 254)	72.1 (66.3 to 77.5)	64.6 (58.3 to 70.4)		
Serotype 9V (Shared) (n=265, 266)	55.8 (49.6 to 61.9)	50.8 (44.6 to 56.9)		
Serotype 14 (Shared) (n=268, 264)	63.8 (57.7 to 69.6)	58.7 (52.5 to 64.7)		

Serotype 18C (Shared) (n=267, 266)	75.7 (70.1 to 80.7)	73.7 (68.0 to 78.9)		
Serotype 19A (Shared) (n=262, 267)	70.2 (64.3 to 75.7)	66.3 (60.3 to 71.9)		
Serotype 19F (Shared) (n=263, 264)	68.4 (62.4 to 74.0)	62.1 (56.0 to 68.0)		
Serotype 23F (Shared) (n=250, 249)	74.4 (68.5 to 79.7)	66.3 (60.0 to 72.1)		
Serotype 22F (Unique to V114) (n=224, 230)	79.5 (73.6 to 84.6)	62.6 (56.0 to 68.9)		
Serotype 33F (Unique to V114) (n=269, 258)	55.8 (49.6 to 61.8)	51.6 (45.3 to 57.8)		

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants with ≥ 4 -Fold Rise in Serotype-specific IgG Concentration Day 1 to Month 13

End point title	Percentage of Participants with ≥ 4 -Fold Rise in Serotype-specific IgG Concentration Day 1 to Month 13
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End point description:

Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using an electrochemiluminescence assay. The percentage of participants who had ≥ 4 -fold rise in IgG concentration are calculated from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.

End point type	Secondary
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End point timeframe:

Day 1 (Baseline) and Month 13

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Percentage of Participants				
number (confidence interval 95%)				
Serotype 1 (Shared) (n=273, 274)	79.5 (74.2 to 84.1)	78.5 (73.1 to 83.2)		
Serotype 3 (Shared) (n=273, 274)	72.5 (66.8 to 77.7)	68.6 (62.8 to 74.1)		
Serotype 4 (Shared) (n=273, 273)	76.6 (71.1 to 81.5)	75.5 (69.9 to 80.4)		
Serotype 5 (Shared) (n=273, 274)	59.7 (53.6 to 65.6)	59.9 (53.8 to 65.7)		
Serotype 6A (Shared) (n=273, 274)	81.0 (75.8 to 85.4)	77.0 (71.6 to 81.9)		
Serotype 6B (Shared) (n=273, 274)	81.0 (75.8 to 85.4)	77.0 (71.6 to 81.9)		
Serotype 7F (Shared) (n=273, 274)	81.7 (76.6 to 86.1)	81.4 (76.3 to 85.8)		

Serotype 9V (Shared) (n=273, 274)	76.2 (70.7 to 81.1)	73.4 (67.7 to 78.5)		
Serotype 14 (Shared) (n=273, 274)	68.5 (62.6 to 74.0)	63.9 (57.9 to 69.6)		
Serotype 18C (Shared) (n=273, 274)	78.0 (72.6 to 82.8)	70.8 (65.0 to 76.1)		
Serotype 19A (Shared) (n=273, 274)	70.0 (64.1 to 75.3)	66.4 (60.5 to 72.0)		
Serotype 19F (Shared) (n=273, 273)	77.3 (71.9 to 82.1)	74.0 (68.4 to 79.1)		
Serotype 23F (Shared) (n=273, 274)	72.2 (66.4 to 77.4)	69.7 (63.9 to 75.1)		
Serotype 22F (Unique to V114) (n=273, 274)	80.6 (75.4 to 85.1)	71.9 (66.2 to 77.1)		
Serotype 33F (Unique to V114) (n=273, 274)	75.5 (69.9 to 80.4)	76.6 (71.2 to 81.5)		

Statistical analyses

No statistical analyses for this end point

Secondary: GMFR in Serotype-specific OPA Month 12 to Month 13

End point title	GMFR in Serotype-specific OPA Month 12 to Month 13
End point description:	
Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using a Multiplexed Opsonophagocytic Assay. Geometric mean fold rise (GMFR) is the geometric mean of fold rise from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.	
End point type	Secondary
End point timeframe:	
Month 12 (Baseline) and Month 13	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype 1 (Shared) (n=273, 270)	2.7 (2.4 to 3.0)	2.3 (2.0 to 2.6)		
Serotype 3 (Shared) (n=267, 270)	3.0 (2.7 to 3.4)	4.1 (3.6 to 4.6)		
Serotype 4 (Shared) (n=273, 273)	3.3 (2.9 to 3.9)	2.3 (2.0 to 2.6)		
Serotype 5 (Shared) (n=275, 274)	3.1 (2.7 to 3.5)	2.6 (2.3 to 2.9)		
Serotype 6A (Shared) (n=264, 268)	1.3 (1.2 to 1.5)	1.3 (1.2 to 1.5)		
Serotype 6B (Shared) (n=273, 274)	1.5 (1.4 to 1.7)	1.9 (1.8 to 2.2)		
Serotype 7F (Shared) (n=275, 274)	2.3 (2.1 to 2.6)	2.1 (1.9 to 2.3)		
Serotype 9V (Shared) (n=274, 273)	2.0 (1.8 to 2.2)	1.7 (1.6 to 2.0)		
Serotype 14 (Shared) (n=272, 272)	2.1 (1.9 to 2.4)	1.9 (1.7 to 2.1)		
Serotype 18C (Shared) (n=272, 274)	1.5 (1.4 to 1.7)	1.7 (1.5 to 1.9)		

Serotype 19A (Shared) (n=270, 273)	2.1 (1.9 to 2.4)	2.0 (1.8 to 2.3)		
Serotype 19F (Shared) (n=273, 274)	2.3 (2.0 to 2.6)	2.3 (2.1 to 2.6)		
Serotype 23F (Shared) (n=268, 270)	1.9 (1.6 to 2.1)	1.9 (1.7 to 2.2)		
Serotype 22F (Unique to V114) (n=265, 245)	2.5 (2.1 to 2.9)	14.2 (10.6 to 19.0)		
Serotype 33F (Unique to V114) (n=271, 263)	2.0 (1.8 to 2.2)	6.2 (5.2 to 7.5)		

Statistical analyses

No statistical analyses for this end point

Secondary: GMFR in Serotype-specific IgG Month 12 to Month 13

End point title	GMFR in Serotype-specific IgG Month 12 to Month 13
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End point description:

Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using an electrochemiluminescence assay. GMFR is the geometric mean of fold rise from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.

End point type	Secondary
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End point timeframe:

Month 12 (Baseline) and Month 13

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Ratio				
geometric mean (confidence interval 95%)				
Serotype 1 (Shared) (n=274, 274)	1.9 (1.8 to 2.1)	1.6 (1.5 to 1.7)		
Serotype 3 (Shared) (n=274, 274)	2.6 (2.4 to 2.9)	3.7 (3.3 to 4.1)		
Serotype 4 (Shared) (n=274, 272)	2.0 (1.8 to 2.2)	1.7 (1.6 to 1.9)		
Serotype 5 (Shared) (n=274, 274)	2.3 (2.1 to 2.5)	2.0 (1.8 to 2.1)		
Serotype 6A (Shared) (n=274, 274)	1.2 (1.1 to 1.2)	1.3 (1.3 to 1.4)		
Serotype 6B (Shared) (n=274, 274)	1.3 (1.2 to 1.4)	1.6 (1.5 to 1.8)		
Serotype 7F (Shared) (n=274, 274)	2.1 (1.9 to 2.2)	1.8 (1.6 to 1.9)		
Serotype 9V (Shared) (n=274, 274)	1.8 (1.6 to 1.9)	1.7 (1.6 to 1.9)		
Serotype 14 (Shared) (n=274, 274)	1.9 (1.7 to 2.1)	1.7 (1.6 to 1.8)		
Serotype 18C (Shared) (n=274, 274)	1.2 (1.2 to 1.3)	1.5 (1.4 to 1.6)		
Serotype 19A (Shared) (n=274, 274)	1.6 (1.5 to 1.7)	1.6 (1.5 to 1.7)		
Serotype 19F (Shared) (n=273, 274)	2.0 (1.9 to 2.2)	2.1 (1.9 to 2.3)		
Serotype 23F (Shared) (n=274, 274)	1.4 (1.3 to 1.5)	1.6 (1.5 to 1.7)		
Serotype 22F (Unique to V114) (n=274, 274)	2.4 (2.2 to 2.6)	10.0 (8.4 to 11.9)		
Serotype 33F (Unique to V114) (n=274, 274)	1.7 (1.6 to 1.9)	10.7 (9.1 to 12.5)		

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants with ≥ 4 -Fold Rise in Serotype-specific OPA Titer Month 12 to Month 13

End point title	Percentage of Participants with ≥ 4 -Fold Rise in Serotype-specific OPA Titer Month 12 to Month 13
End point description:	
Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using a Multiplexed Opsonophagocytic Assay. The percentage of participants who had ≥ 4 -fold rise in OPA titers were calculated from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.	
End point type	Secondary
End point timeframe:	
Month 12 (Baseline) and Month 13	

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Percentage of Participants				
number (confidence interval 95%)				
Serotype 1 (Shared) (n=273, 270)	29.7 (24.3 to 35.5)	25.6 (20.5 to 31.2)		
Serotype 3 (Shared) (n=267, 270)	39.0 (33.1 to 45.1)	49.6 (43.5 to 55.8)		
Serotype 4 (Shared) (n=273, 273)	36.3 (30.6 to 42.3)	22.3 (17.5 to 27.8)		
Serotype 5 (Shared) (n=275, 274)	34.9 (29.3 to 40.9)	29.2 (23.9 to 35.0)		
Serotype 6A (Shared) (n=264, 268)	9.1 (5.9 to 13.2)	10.4 (7.1 to 14.7)		
Serotype 6B (Shared) (n=273, 274)	8.8 (5.7 to 12.8)	16.1 (11.9 to 21.0)		
Serotype 7F (Shared) (n=275, 274)	24.7 (19.7 to 30.3)	21.2 (16.5 to 26.5)		
Serotype 9V (Shared) (n=274, 273)	20.1 (15.5 to 25.3)	16.5 (12.3 to 21.4)		
Serotype 14 (Shared) (n=272, 272)	21.3 (16.6 to 26.7)	12.9 (9.1 to 17.4)		
Serotype 18C (Shared) (n=272, 274)	10.7 (7.3 to 15.0)	15.7 (11.6 to 20.6)		
Serotype 19A (Shared) (n=270, 273)	20.4 (15.7 to 25.7)	17.9 (13.6 to 23.0)		
Serotype 19F (Shared) (n=273, 274)	25.3 (20.2 to 30.9)	27.4 (22.2 to 33.1)		

Serotype 23F (Shared) (n=268, 270)	19.0 (14.5 to 24.2)	17.8 (13.4 to 22.9)		
Serotype 22F (Unique to V114) (n=265, 245)	26.8 (21.6 to 32.6)	62.0 (55.6 to 68.1)		
Serotype 33F (Unique to V114) (n=271, 263)	22.1 (17.3 to 27.6)	54.4 (48.1 to 60.5)		

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants with ≥ 4 -Fold Rise in Serotype-specific IgG Concentration Month 12 to Month 13

End point title	Percentage of Participants with ≥ 4 -Fold Rise in Serotype-specific IgG Concentration Month 12 to Month 13
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End point description:

Activity for the serotypes contained in Prevnar 13™ and V114 (13 serotypes shared with Prevnar 13™ and 2 serotypes unique to V114) was determined using an electrochemiluminescence assay. The percentage of participants who had ≥ 4 -fold rise in IgG concentration are calculated from baseline to postvaccination. The analysis population consisted of all randomized participants without protocol deviations that could have substantially impacted the results of the immunogenicity analyses and had sufficient data to perform the analyses.

End point type	Secondary
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End point timeframe:

Month 12 (Baseline) and Month 13

End point values	V114	Prevnar 13™		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	326	325		
Units: Percentage of Participants				
number (confidence interval 95%)				
Serotype 1 (Shared) (n=274, 274)	15.0 (11.0 to 19.7)	8.8 (5.7 to 12.8)		
Serotype 3 (Shared) (n=274, 274)	31.4 (25.9 to 37.2)	43.8 (37.8 to 49.9)		
Serotype 4 (Shared) (n=274, 272)	14.2 (10.3 to 18.9)	8.8 (5.7 to 12.8)		
Serotype 5 (Shared) (n=274, 274)	20.1 (15.5 to 25.3)	15.0 (11.0 to 19.7)		
Serotype 6A (Shared) (n=274, 274)	1.1 (0.2 to 3.2)	4.4 (2.3 to 7.5)		
Serotype 6B (Shared) (n=274, 274)	4.7 (2.6 to 8.0)	11.3 (7.8 to 15.7)		
Serotype 7F (Shared) (n=274, 274)	17.2 (12.9 to 22.1)	10.2 (6.9 to 14.4)		
Serotype 9V (Shared) (n=274, 274)	10.6 (7.2 to 14.8)	9.1 (6.0 to 13.2)		
Serotype 14 (Shared) (n=274, 274)	14.2 (10.3 to 18.9)	9.5 (6.3 to 13.6)		
Serotype 18C (Shared) (n=274, 274)	0.4 (0.0 to 2.0)	6.9 (4.2 to 10.6)		
Serotype 19A (Shared) (n=274, 274)	8.0 (5.1 to 11.9)	7.7 (4.8 to 11.5)		

Serotype 19F (Shared) (n=273, 274)	13.9 (10.0 to 18.6)	17.9 (13.5 to 22.9)		
Serotype 23F (Shared) (n=274, 274)	3.6 (1.8 to 6.6)	10.2 (6.9 to 14.4)		
Serotype 22F (Unique to V114) (n=274, 274)	21.5 (16.8 to 26.9)	71.2 (65.4 to 76.5)		
Serotype 33F (Unique to V114) (n=274,274)	10.6 (7.2 to 14.8)	77.0 (71.6 to 81.9)		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Non-serious adverse events: Up to 14 days after each vaccination; Serious adverse events and all-cause mortality: Up to Month 13 (Up to 44 days after vaccination 2)

Adverse event reporting additional description:

The analysis population included all randomized participants who received study intervention at the specified timepoint. Adverse events were reported (1) following administration of either V114 or Pevnar 13™ and (2) following administration of PNEUMOVAX™23.

Assessment type	Systematic
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Dictionary used

Dictionary name	MedDRA
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Dictionary version	23.0
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Reporting groups

Reporting group title	V114
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Reporting group description:

Participants received a single 0.5 mL intramuscular (IM) injection of V114 on Day 1 (Vaccination 1) and were to receive a single 0.5 mL IM injection of PNEUMOVAX™23 at Month 12 (Vaccination 2).

Reporting group title	Pevnar 13™
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Reporting group description:

Participants received a single 0.5 mL IM injection of Pevnar 13™ on Day 1 (Vaccination 1) and were to receive a single 0.5 mL IM injection of PNEUMOVAX™23 at Month 12 (Vaccination 2).

Reporting group title	V114 (Post-PNEUMOVAX™23)
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Reporting group description:

Participants received a single 0.5 mL intramuscular (IM) injection of V114 on Day 1 (Vaccination 1) and a single 0.5 mL IM injection of PNEUMOVAX™23 at Month 12 (Vaccination 2).

Reporting group title	Pevnar 13™ (Post-PNEUMOVAX™23)
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Reporting group description:

Participants received a single 0.5 mL IM injection of Pevnar 13™ on Day 1 (Vaccination 1) and a single 0.5 mL IM injection of PNEUMOVAX™23 at Month 12 (Vaccination 2).

Serious adverse events	V114	Pevnar 13™	V114 (Post-PNEUMOVAX™23)
Total subjects affected by serious adverse events			
subjects affected / exposed	17 / 327 (5.20%)	19 / 324 (5.86%)	1 / 298 (0.34%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Adenocarcinoma			
subjects affected / exposed	0 / 327 (0.00%)	0 / 324 (0.00%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Bladder transitional cell carcinoma			

subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Hepatocellular carcinoma			
subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Invasive ductal breast carcinoma			
subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Lung neoplasm malignant			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Prostate cancer			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Squamous cell carcinoma of the hypopharynx			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
General disorders and administration site conditions			
Asthenia			
subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Hangover			
subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Pyrexia			

subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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			
Benign prostatic hyperplasia			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory, thoracic and mediastinal disorders			
Acute pulmonary oedema			
subjects affected / exposed	0 / 327 (0.00%)	0 / 324 (0.00%)	1 / 298 (0.34%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Asthma			
subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Chronic obstructive pulmonary disease			
subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Dyspnoea			
subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Pulmonary hypertension			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Psychiatric disorders			
Delirium tremens			

subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Injury, poisoning and procedural complications			
Rib fracture			
subjects affected / exposed	0 / 327 (0.00%)	0 / 324 (0.00%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Craniocerebral injury			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Spinal compression fracture			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Tibia fracture			
subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Cardiac disorders			
Cardiac failure			
subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Coronary artery disease			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nervous system disorders			
Syncope			
subjects affected / exposed	1 / 327 (0.31%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Arachnoid cyst			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Cerebrovascular accident			
subjects affected / exposed	1 / 327 (0.31%)	2 / 324 (0.62%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 2	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Presyncope			
subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Subarachnoid haemorrhage			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrointestinal disorders			
Pancreatitis acute			
subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Intestinal pseudo-obstruction			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Alcoholic pancreatitis			
subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Umbilical hernia			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Renal and urinary disorders			

Calculus urinary			
subjects affected / exposed	1 / 327 (0.31%)	0 / 324 (0.00%)	0 / 298 (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
Musculoskeletal and connective tissue disorders			
Osteoarthritis			
subjects affected / exposed	2 / 327 (0.61%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 2	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
Appendiceal abscess			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Cellulitis			
subjects affected / exposed	2 / 327 (0.61%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 2	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Osteomyelitis			
subjects affected / exposed	2 / 327 (0.61%)	0 / 324 (0.00%)	0 / 298 (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	1 / 327 (0.31%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Sinusitis			
subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Metabolism and nutrition disorders			
Obesity			

subjects affected / exposed	0 / 327 (0.00%)	1 / 324 (0.31%)	0 / 298 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Prevnar 13™(Post-PNEUMOVAX™23)		
Total subjects affected by serious adverse events			
subjects affected / exposed	2 / 302 (0.66%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Adenocarcinoma			
subjects affected / exposed	1 / 302 (0.33%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Bladder transitional cell carcinoma			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Hepatocellular carcinoma			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Invasive ductal breast carcinoma			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Lung neoplasm malignant			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Prostate cancer			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		

Squamous cell carcinoma of the hypopharynx			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
General disorders and administration site conditions			
Asthenia			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Hangover			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Pyrexia			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Reproductive system and breast disorders			
Benign prostatic hyperplasia			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Respiratory, thoracic and mediastinal disorders			
Acute pulmonary oedema			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Asthma			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Chronic obstructive pulmonary disease			

subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Dyspnoea			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Pulmonary hypertension			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Psychiatric disorders			
Delirium tremens			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Injury, poisoning and procedural complications			
Rib fracture			
subjects affected / exposed	1 / 302 (0.33%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Craniocerebral injury			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Spinal compression fracture			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Tibia fracture			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		

Cardiac disorders			
Cardiac failure			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Coronary artery disease			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Nervous system disorders			
Syncope			
subjects affected / exposed	1 / 302 (0.33%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Arachnoid cyst			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Cerebrovascular accident			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Presyncope			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Subarachnoid haemorrhage			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			
Pancreatitis acute			

subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Intestinal pseudo-obstruction			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Alcoholic pancreatitis			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Umbilical hernia			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Renal and urinary disorders			
Calculus urinary			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Musculoskeletal and connective tissue disorders			
Osteoarthritis			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Appendiceal abscess			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Cellulitis			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		

Osteomyelitis			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Pneumonia			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Sinusitis			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Metabolism and nutrition disorders			
Obesity			
subjects affected / exposed	0 / 302 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		

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

Non-serious adverse events	V114	Prevnar 13™	V114 (Post-PNEUMOVAX™23)
Total subjects affected by non-serious adverse events			
subjects affected / exposed	221 / 327 (67.58%)	181 / 324 (55.86%)	217 / 298 (72.82%)
Nervous system disorders			
Headache			
subjects affected / exposed	46 / 327 (14.07%)	41 / 324 (12.65%)	36 / 298 (12.08%)
occurrences (all)	58	52	43
General disorders and administration site conditions			
Fatigue			
subjects affected / exposed	77 / 327 (23.55%)	45 / 324 (13.89%)	77 / 298 (25.84%)
occurrences (all)	89	53	103
Injection site erythema			
subjects affected / exposed	39 / 327 (11.93%)	26 / 324 (8.02%)	53 / 298 (17.79%)
occurrences (all)	41	28	57
Injection site pain			

subjects affected / exposed	181 / 327 (55.35%)	137 / 324 (42.28%)	186 / 298 (62.42%)
occurrences (all)	204	155	210
Injection site swelling			
subjects affected / exposed	54 / 327 (16.51%)	40 / 324 (12.35%)	84 / 298 (28.19%)
occurrences (all)	55	43	85
Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	21 / 327 (6.42%)	17 / 324 (5.25%)	25 / 298 (8.39%)
occurrences (all)	26	19	34
Myalgia			
subjects affected / exposed	58 / 327 (17.74%)	36 / 324 (11.11%)	64 / 298 (21.48%)
occurrences (all)	62	39	71

Non-serious adverse events	Prevnar 13™(Post-PNEUMOVAX™23)		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	210 / 302 (69.54%)		
Nervous system disorders			
Headache			
subjects affected / exposed	38 / 302 (12.58%)		
occurrences (all)	46		
General disorders and administration site conditions			
Fatigue			
subjects affected / exposed	66 / 302 (21.85%)		
occurrences (all)	77		
Injection site erythema			
subjects affected / exposed	51 / 302 (16.89%)		
occurrences (all)	53		
Injection site pain			
subjects affected / exposed	177 / 302 (58.61%)		
occurrences (all)	210		
Injection site swelling			
subjects affected / exposed	79 / 302 (26.16%)		
occurrences (all)	82		
Musculoskeletal and connective tissue disorders			

Arthralgia			
subjects affected / exposed	25 / 302 (8.28%)		
occurrences (all)	26		
Myalgia			
subjects affected / exposed	50 / 302 (16.56%)		
occurrences (all)	55		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
04 June 2018	Added to the exclusion criteria and concomitant therapy a clarification on the specific steroid used as a reference. The schedule of activities clarified the process for administering the telephone contact questionnaire.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported