Clinical trial results:
Immunogenicity and Safety of a DTwP-HepB-Hib-IPV (SHAN6™) Vaccine When Administered Concomitantly With Routine Pediatric Vaccines in Healthy Infants and Toddlers in Thailand

Summary

EudraCT number	2021-006686-37
Trial protocol	Outside EU/EEA
Global end of trial date	20 November 2021

Results information

Result version number	v1 (current)
This version publication date	11 August 2022
First version publication date	11 August 2022

Trial information

Trial identification

Sponsor protocol code	SH600009

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT04429295
WHO universal trial number (UTN)	U1111-1233-9694

Notes:

Sponsors

Sponsor organisation name	Sanofi Pasteur
Sponsor organisation address	14 Espace Henry Vallée, Lyon, France, 69007
Public contact	Trial Transparency Team, Sanofi Pasteur, Contact-US@sanofi.com
Scientific contact	Trial Transparency Team, Sanofi Pasteur, Contact-US@sanofi.com

Notes:

Paediatric regulatory details

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

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	05 May 2022
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	20 November 2021
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To demonstrate the non-inferiority of the SHAN6 vaccine to the licensed SHAN5 given with bivalent oral polio vaccine (bOPV) and inactivated poliomyelitis vaccine (IPV) vaccines in terms of adjusted geometric mean concentration (aGMC) for the pertussis antigens anti-pertussis toxin (PT) and anti-fimbriae (FIM) and seroprotection rates for all other antigens 28 days after the 3-dose primary infant vaccination when co-administered with pneumococcal 13-valent conjugate vaccine (PCV) [Prevnar 13] and oral rotavirus vaccine (ORV-1) [Rotarix]).

Protection of trial subjects:

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

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	28 June 2020
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Thailand: 460
Worldwide total number of subjects	460
EEA total number of subjects	0

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	460
Children (2-11 years)	0
Adolescents (12-17 years)	0

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

Subject disposition

Recruitment

Recruitment details:

The study was conducted at 3 active sites in Thailand from 28 June 2020 to 20 November 2021. A total of 460 subjects were enrolled and randomized in the study.

Pre-assignment

Screening details:

Subjects who returned for Visit 05 before end of September 2021 received a booster dose of SHAN6 and subjects who returned for Visit 05 after September 2021 received a booster dose of a licensed vaccine as per local standard of care.

Period 1

Period 1 title	Primary Phase (Up to Day 148)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	Primary Phase: Group A: SHAN6

Arm description:

Subjects aged 2 months (at the time of enrollment) received SHAN6 vaccine at the age of Months 2, 4, and 6, co-administered with Prevnar 13 vaccine (i.e., pneumococcal 13-valent conjugate vaccine [PCV]) at the age of Months 2, 4, and 6; and Rotarix (i.e., oral rotavirus vaccine [ORV-1]) vaccine at the age of Months 2, and 4.

Arm type	Experimental
Investigational medicinal product name	Hexavalent DTwP-HepB-Hib-IPV vaccine
Investigational medicinal product code	
Other name	SHAN6™
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 milliliters (mL), intramuscular dose.

Investigational medicinal product name	Human Rotavirus, live attenuated (ORV)
Investigational medicinal product code	
Other name	Rotarix
Pharmaceutical forms	Oral suspension
Routes of administration	Oral use

Dosage and administration details:

1.5 mL, oral dose.

Investigational medicinal product name	Pneumococcal polysaccharide conjugate vaccine (13-valent, adsorbed) (PCV)
Investigational medicinal product code	
Other name	Prevnar 13®
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL, intramuscular dose.

Arm title	Primary Phase: Group B: SHAN 5 + bOPV + IPV

Arm description:

Subjects aged 2 months (at the time of enrollment) received SHAN5™ along with bOPV at the age of Months 2, 4, and 6, and IPV at the age of Month 4; co-administered with Prevnar 13 vaccine at the age

of Months 2, 4, and 6; and Rotarix vaccine at the age of Months 2, and 4.

Arm type	Active comparator
Investigational medicinal product name	Pentavalent DTwP-HepB-Hib vaccine
Investigational medicinal product code	
Other name	SHAN5™
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use
Dosage and administration details: 0.5 mL, intramuscular dose.	
Investigational medicinal product name	Inactivated Poliomyelitis Vaccine (IPV)
Investigational medicinal product code	
Other name	IMOVAX Polio
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use
Dosage and administration details: 0.5 mL, intramuscular dose.	
Investigational medicinal product name	Oral bivalent types 1 and 3; Poliomyelitis Vaccine (bOPV)
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Oral suspension
Routes of administration	Oral use
Dosage and administration details: 0.1 mL, oral dose.	
Investigational medicinal product name	Human Rotavirus, live attenuated
Investigational medicinal product code	
Other name	Rotarix
Pharmaceutical forms	Oral suspension
Routes of administration	Oral use
Dosage and administration details: 1.5 mL, oral dose.	
Investigational medicinal product name	Pneumococcal polysaccharide conjugate vaccine (13-valent, adsorbed)
Investigational medicinal product code	
Other name	Prevnar 13®
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use
Dosage and administration details: 0.5 mL, intramuscular dose.	

Number of subjects in period 1	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV
Started	229	231
Safety Analysis Set (SafAS)	228	231
Completed	225	228
Not completed	4	3
Adverse Event	1	-
Withdrawal by Parent/Guardian	3	3

Period 2

Period 2 title	Booster Phase (Up to Day 506)
Is this the baseline period?	No
Allocation method	Non-randomised - controlled
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	Booster Phase: Group A: SHAN6/SHAN6

Arm description:

Subjects who received vaccination in primary series and completed the safety follow-up period received a booster injection of SHAN6 in the booster phase at 15-18 months of age.

Arm type	Experimental
Investigational medicinal product name	Hexavalent DTwP-HepB-Hib-IPV vaccine
Investigational medicinal product code	
Other name	SHAN6™
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL, intramuscular, dose.

Arm title	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6

Arm description:

Subjects who received vaccination in primary phase and completed the safety follow-up period received a booster injection of SHAN6 in the booster phase at 15-18 months of age.

Arm type	Active comparator
Investigational medicinal product name	Hexavalent DTwP-HepB-Hib-IPV vaccine
Investigational medicinal product code	
Other name	SHAN6™
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL, intramuscular dose.

Number of subjects in period 2[1]	Booster Phase: Group A: SHAN6/SHAN6	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6
Started	210	211
Safety Analysis Set (SafAS)	166 [2]	167 [3]
Completed	209	211
Not completed	1	0
Protocol deviation	1	-

Notes:

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

Justification: Subjects who completed safety follow-up period and entered the booster phase.

[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: SafAS for booster phase included randomised subjects who received the SHAN6 booster vaccination. Subjects who received Licensed vaccine were not counted in this analysis.

[3] - 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: SafAS for booster phase included randomised subjects who received the SHAN6 booster vaccination. Subjects who received Licensed vaccine were not counted in this analysis.

Baseline characteristics

Reporting groups	
Reporting group title	Primary Phase: Group A: SHAN6
Reporting group description:	
Subjects aged 2 months (at the time of enrollment) received SHAN6 vaccine at the age of Months 2, 4, and 6, co-administered with Prevnar 13 vaccine (i.e., pneumococcal 13-valent conjugate vaccine [PCV]) at the age of Months 2, 4, and 6; and Rotarix (i.e., oral rotavirus vaccine [ORV-1]) vaccine at the age of Months 2, and 4.	
Reporting group title	Primary Phase: Group B: SHAN 5 + bOPV + IPV
Reporting group description:	
Subjects aged 2 months (at the time of enrollment) received SHAN5™ along with bOPV at the age of Months 2, 4, and 6, and IPV at the age of Month 4; co-administered with Prevnar 13 vaccine at the age of Months 2, 4, and 6; and Rotarix vaccine at the age of Months 2, and 4.	

Reporting group values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV	Total
Number of subjects	229	231	460
Age categorical			
Units: Subjects			
Age continuous			
Units: weeks			
arithmetic mean	9.00	9.03	
standard deviation	± 0.925	± 0.923	-
Gender categorical			
Units: Subjects			
Female	110	115	225
Male	119	116	235

End points

End points reporting groups

Reporting group title	Primary Phase: Group A: SHAN6
Reporting group description:	
Subjects aged 2 months (at the time of enrollment) received SHAN6 vaccine at the age of Months 2, 4, and 6, co-administered with Prevnar 13 vaccine (i.e., pneumococcal 13-valent conjugate vaccine [PCV]) at the age of Months 2, 4, and 6; and Rotarix (i.e., oral rotavirus vaccine [ORV-1]) vaccine at the age of Months 2, and 4.	
Reporting group title	Primary Phase: Group B: SHAN 5 + bOPV + IPV
Reporting group description:	
Subjects aged 2 months (at the time of enrollment) received SHAN5™ along with bOPV at the age of Months 2, 4, and 6, and IPV at the age of Month 4; co-administered with Prevnar 13 vaccine at the age of Months 2, 4, and 6; and Rotarix vaccine at the age of Months 2, and 4.	
Reporting group title	Booster Phase: Group A: SHAN6/SHAN6
Reporting group description:	
Subjects who received vaccination in primary series and completed the safety follow-up period received a booster injection of SHAN6 in the booster phase at 15-18 months of age.	
Reporting group title	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6
Reporting group description:	
Subjects who received vaccination in primary phase and completed the safety follow-up period received a booster injection of SHAN6 in the booster phase at 15-18 months of age.	

Primary: Primary Phase: Percentage of Subjects With Vaccine Seroprotection Against Diphtheria (D), Tetanus (T), Hepatitis B (Hep B), Haemophilus influenzae type b (Hib [PRP]) and Poliovirus (Polio) Antigens

End point title	Primary Phase: Percentage of Subjects With Vaccine Seroprotection Against Diphtheria (D), Tetanus (T), Hepatitis B (Hep B), Haemophilus influenzae type b (Hib [PRP]) and Poliovirus (Polio) Antigens
End point description:	
Seroprotection status for diphtheria, tetanus, hepatitis B (HBs), Hib (PRP) and poliovirus antigens (anti-polio 1, 2, and 3) were defined as following: anti-diphtheria (Anti-D) and anti-tetanus (Anti-T) antibody (Ab) titers greater than or equal to (>=) 0.01 international unit (IU)/mL; Anti-HBs Ab titers >=10 mIU/mL; Anti-PRP Ab titers >= 0.15 micrograms (mcg)/mL; Anti-polio 1, 2, and 3 Ab titers >=8 (1/dilution[dil]). Analysis was performed on per protocol analysis set (PPAS) which was defined as the subset of enrolled subjects who received the 3 doses of the study vaccine without any relevant protocol deviations and had available data at specified time point. Here, 'n'=subjects with available data for each specified category.	
End point type	Primary
End point timeframe:	
28 days post third dose (i.e., Day 148)	

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	217	219		
Units: percentage of subjects				
number (confidence interval 95%)				

Anti-D (n=217, 219)	100 (98.3 to 100)	100 (98.3 to 100)		
Anti-T (n=217, 219)	100 (98.3 to 100)	100 (98.3 to 100)		
Anti-PRP (n=217, 219)	100 (98.3 to 100)	99.5 (97.5 to 100)		
Anti-HBs (n=217, 219)	98.6 (96.0 to 99.7)	98.6 (96.0 to 99.7)		
Anti-Polio 1 (n=217, 219)	100 (98.3 to 100)	100 (98.3 to 100)		
Anti-Polio 2 (n=216, 219)	100 (98.3 to 100)	98.2 (95.4 to 99.5)		
Anti-Polio 3 (n=215, 219)	100 (98.3 to 100)	100 (98.3 to 100)		

Statistical analyses

Statistical analysis title	SHAN6 vs SHAN 5 + bOPV + IPV: Anti-D
Comparison groups	Primary Phase: Group A: SHAN6 v Primary Phase: Group B: SHAN 5 + bOPV + IPV
Number of subjects included in analysis	436
Analysis specification	Pre-specified
Analysis type	non-inferiority[1]
Parameter estimate	Difference in Percentage
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.74
upper limit	1.72

Notes:

[1] - Non-inferiority was concluded if the lower limit of 2-sided 95% confidence interval (CI) of difference in percentage between 2 groups was greater than -10%.

Statistical analysis title	SHAN6 vs SHAN 5 + bOPV + IPV: Anti-T
Comparison groups	Primary Phase: Group A: SHAN6 v Primary Phase: Group B: SHAN 5 + bOPV + IPV
Number of subjects included in analysis	436
Analysis specification	Pre-specified
Analysis type	non-inferiority[2]
Parameter estimate	Difference in Percentage
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.74
upper limit	1.72

Notes:

[2] - Non-inferiority was concluded if the lower limit of 2-sided 95% CI of difference in percentage between 2 groups was greater than -10%.

Statistical analysis title	SHAN6 vs SHAN 5 + bOPV + IPV: Anti-PRP
Comparison groups	Primary Phase: Group A: SHAN6 v Primary Phase: Group B:

	SHAN 5 + bOPV + IPV
Number of subjects included in analysis	436
Analysis specification	Pre-specified
Analysis type	non-inferiority[3]
Parameter estimate	Difference in Percentage
Point estimate	0.46
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.32
upper limit	2.54

Notes:

[3] - Non-inferiority was concluded if the lower limit of 2-sided 95% CI of difference in percentage between 2 groups was greater than -10%.

Statistical analysis title	SHAN6 vs SHAN 5 + bOPV + IPV: Anti-HBs
Comparison groups	Primary Phase: Group A: SHAN6 v Primary Phase: Group B: SHAN 5 + bOPV + IPV
Number of subjects included in analysis	436
Analysis specification	Pre-specified
Analysis type	non-inferiority[4]
Parameter estimate	Difference in Percentage
Point estimate	-0.01
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.77
upper limit	2.72

Notes:

[4] - Non-inferiority was concluded if the lower limit of 2-sided 95% CI of difference in percentage between 2 groups was greater than -10%.

Statistical analysis title	SHAN6 vs SHAN 5 + bOPV + IPV: Anti-Polio 1
Comparison groups	Primary Phase: Group A: SHAN6 v Primary Phase: Group B: SHAN 5 + bOPV + IPV
Number of subjects included in analysis	436
Analysis specification	Pre-specified
Analysis type	non-inferiority[5]
Parameter estimate	Difference in Percentage
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.74
upper limit	1.72

Notes:

[5] - Non-inferiority was concluded if the lower limit of 2-sided 95% CI of difference in percentage between 2 groups was greater than -10%.

Statistical analysis title	SHAN6 vs SHAN 5 + bOPV + IPV: Anti-Polio 2
Comparison groups	Primary Phase: Group A: SHAN6 v Primary Phase: Group B: SHAN 5 + bOPV + IPV

Number of subjects included in analysis	436
Analysis specification	Pre-specified
Analysis type	non-inferiority[6]
Parameter estimate	Difference in Percentage
Point estimate	1.83
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.25
upper limit	4.6

Notes:

[6] - Non-inferiority was concluded if the lower limit of 2-sided 95% CI of difference in percentage between 2 groups was greater than -10%.

Statistical analysis title	SHAN6 vs SHAN 5 + bOPV + IPV: Anti-Polio 3
Comparison groups	Primary Phase: Group A: SHAN6 v Primary Phase: Group B: SHAN 5 + bOPV + IPV
Number of subjects included in analysis	436
Analysis specification	Pre-specified
Analysis type	non-inferiority[7]
Parameter estimate	Difference in Percentage
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.76
upper limit	1.72

Notes:

[7] - Non-inferiority was concluded if the lower limit of 2-sided 95% CI of difference in percentage between 2 groups was greater than -10%.

Primary: Primary Phase: Adjusted Geometric Mean Concentrations (aGMCs) of Antibodies Against Pertussis Antigens

End point title	Primary Phase: Adjusted Geometric Mean Concentrations (aGMCs) of Antibodies Against Pertussis Antigens

End point description:

Adjusted geometric mean concentrations for anti-pertussis toxin (PT) and anti-fimbriae (FIM) were measured by EU/mL. The adjusted GMCs was computed using analysis of covariance to adjust for baseline disparities and to consider the correlation between pre- and post- concentration, through an Analysis of covariance (ANCOVA) model using the pre-vaccination (Day 0) log-transformed concentration as a covariate for adjustment in order to account for the associated variability. Analysis was performed on PPAS.

End point type	Primary

End point timeframe:

28 days post third dose (i.e., Day 148)

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	217	219		
Units: EU/mL				
geometric mean (confidence interval 95%)				
Anti-PT	44.6 (37.3 to 53.3)	64.7 (54.1 to 77.3)		
Anti-FIM	937.3 (807.6 to 1087.7)	1150.4 (992.0 to 1334.2)		

Statistical analyses

Statistical analysis title	SHAN6 vs SHAN 5 + bOPV + IPV: Anti-PT
Comparison groups	Primary Phase: Group A: SHAN6 v Primary Phase: Group B: SHAN 5 + bOPV + IPV
Number of subjects included in analysis	436
Analysis specification	Pre-specified
Analysis type	non-inferiority[8]
Parameter estimate	Geometric mean ratio
Point estimate	0.69
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.536
upper limit	0.888

Notes:

[8] - Non-inferiority was concluded if the lower limit of 2-sided 95% CI of ratio between 2 groups was greater than 0.5.

Statistical analysis title	SHAN6 vs SHAN 5 + bOPV + IPV: Anti-FIM
Comparison groups	Primary Phase: Group A: SHAN6 v Primary Phase: Group B: SHAN 5 + bOPV + IPV
Number of subjects included in analysis	436
Analysis specification	Pre-specified
Analysis type	non-inferiority[9]
Parameter estimate	Geometric mean ratio
Point estimate	0.815
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.66
upper limit	1.01

Notes:

[9] - Non-inferiority was concluded if the lower limit of 2-sided 95% CI of ratio between 2 groups was greater than 0.5.

Secondary: Primary Phase: Percentage of Subjects With Antibody Titers Above Predefined Thresholds Against Diphtheria (D), Tetanus (T), Hepatitis B (Hep B), Haemophilus influenzae type b (Hib [PRP]) and Poliovirus (Polio) Antigens

End point title	Primary Phase: Percentage of Subjects With Antibody Titers Above Predefined Thresholds Against Diphtheria (D), Tetanus (T), Hepatitis B (Hep B), Haemophilus influenzae type b (Hib [PRP]) and Poliovirus (Polio) Antigens

End point description:

Antibody titers above the following cut-off for each antigen were defined as: Anti-D Ab titers >= 0.01 IU/mL, >= 0.1 IU/mL, and >= 1.0 IU/mL; Anti-T Ab titers >= 0.01 IU/mL, >= 0.1 IU/mL, and >= 1.0 IU/mL; Anti-HBs Ab titers >=10 mIU/mL and >= 100 mIU/mL; Anti-PRP Ab titers >= 0.15 mcg/mL and >=1.0 mcg/mL; Anti-Polio 1, 2, and 3 Ab titers >= 8 (1/dilution). Analysis was performed on full analysis set (FAS) population defined as subset of enrolled subjects who received at least 1 dose of the study vaccine. Here, 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Day 0 (pre-vaccination) and 28 days post third dose (i.e., Day 148)

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	228	231		
Units: percentage of subjects				
number (confidence interval 95%)				
Anti-D: Day 0: >=0.01 (n=228,231)	95.2 (91.5 to 97.6)	95.2 (91.6 to 97.6)		
Anti-D: Day 0: >=0.1 (n=228,231)	56.1 (49.4 to 62.7)	51.1 (44.4 to 57.7)		
Anti-D: Day 0: >=1.0 (n=228,231)	5.3 (2.7 to 9.0)	2.6 (1.0 to 5.6)		
Anti-D: Post-dose 3: >=0.01 (n=225,227)	100 (98.4 to 100)	100 (98.4 to 100)		
Anti-D: Post-dose 3: >=0.1 (n=225,227)	99.1 (96.8 to 99.9)	100 (98.4 to 100)		
Anti-D: Post-dose 3: >=1.0 (n=225,227)	81.8 (76.1 to 86.6)	85.5 (80.2 to 89.8)		
Anti-T: Day 0: >=0.01 (n=228,231)	100 (98.4 to 100)	100 (98.4 to 100)		
Anti-T: Day 0: >=0.1 (n=228,231)	99.1 (96.9 to 99.9)	97.4 (94.4 to 99.0)		
Anti-T: Day 0: >=1.0 (n=228,231)	66.7 (60.1 to 72.8)	62.3 (55.7 to 68.6)		
Anti-T: Post-dose 3: >=0.01 (n=225,227)	100 (98.4 to 100)	100 (98.4 to 100)		
Anti-T: Post-dose 3: >=0.1 (n=225,227)	100 (98.4 to 100)	100 (98.4 to 100)		
Anti-T: Post-dose 3: >=1.0 (n=225,227)	96.4 (93.1 to 98.5)	97.4 (94.3 to 99.0)		
Anti-HBs: Day 0: >=10 (n=227,229)	27.8 (22.0 to 34.1)	25.3 (19.8 to 31.5)		
Anti-HBs: Day 0: >=100 (n=227,229)	10.6 (6.9 to 15.3)	6.6 (3.7 to 10.6)		
Anti-HBs: Post-dose 3: >=10 (n=225,227)	98.7 (96.2 to 99.7)	98.2 (95.5 to 99.5)		
Anti-HBs: Post-dose 3: >=100 (n=225,227)	93.8 (89.8 to 96.6)	96.5 (93.2 to 98.5)		
Anti-PRP: Day 0: >=0.15 (n=227,229)	30.0 (24.1 to 36.4)	27.5 (21.8 to 33.8)		
Anti-PRP: Day 0: >=1.0 (n=227,229)	3.5 (1.5 to 6.8)	2.6 (1.0 to 5.6)		

Anti-PRP: Post-dose 3: >=0.15 (n=225,227)	100 (98.4 to 100)	99.6 (97.6 to 100)		
Anti-PRP: Post-dose 3: >=1.0 (n=225,227)	96.4 (93.1 to 98.5)	94.7 (90.9 to 97.2)		
Anti-Polio 1: Day 0: >=8 (n=228,231)	42.5 (36.0 to 49.2)	48.9 (42.3 to 55.6)		
Anti-Polio 1: Post-dose 3: >=8 (n=225,227)	100 (98.4 to 100)	100 (98.4 to 100)		
Anti-Polio 2: Day 0: >=8 (n=225,228)	57.8 (51.0 to 64.3)	53.9 (47.2 to 60.5)		
Anti-Polio 2: Post-dose 3: >=8 (n=224,227)	100 (98.4 to 100)	97.8 (94.9 to 99.3)		
Anti-Polio 3: Day 0: >=8 (n=228,230)	29.4 (23.6 to 35.8)	34.8 (28.6 to 41.3)		
Anti-Polio 3: Post-dose 3: >=8 (n=223,227)	100 (98.4 to 100)	100 (98.4 to 100)		

Statistical analyses

No statistical analyses for this end point

Secondary: Primary Phase: Percentage of Subjects With Vaccine Response Against Pertussis Antigens

End point title	Primary Phase: Percentage of Subjects With Vaccine Response Against Pertussis Antigens

End point description:

Pertussis antigens vaccine response status for anti-PT, anti-FHA, anti-pertactin (PRN), and anti-FIM Abs was defined as follows: post-dose 3 vaccination concentration greater than or equal to (>=) 4*lower limit of quantitation (LLOQ) of the assay, if the pre-vaccination concentration was less than (<) 4*LLOQ of the assay or; post-dose 3 vaccination concentration >= the pre-vaccination concentration, if the pre-vaccination concentration was >= 4*LLOQ of the assay. Analysis was performed on FAS population. Here, 'number of subjects analysed' = subjects evaluable for this endpoint.

End point type	Secondary

End point timeframe:

28 days post third dose (i.e., Day 148)

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	225	227		
Units: percentage of subjects				
number (confidence interval 95%)				
Anti-PT	62.2 (55.5 to 68.6)	69.2 (62.7 to 75.1)		
Anti-FIM	94.7 (90.9 to 97.2)	95.2 (91.5 to 97.6)		
Anti-PRN	72.4 (66.1 to 78.2)	80.6 (74.9 to 85.5)		
Anti-FHA	56.0 (49.2 to 62.6)	67.0 (60.4 to 73.0)		

Statistical analyses

No statistical analyses for this end point

Secondary: Primary Phase: Percentage of Subjects With Vaccine Seroconversion Against Pertussis Antigens

End point title	Primary Phase: Percentage of Subjects With Vaccine Seroconversion Against Pertussis Antigens

End point description:

Pertussis antigens vaccine seroconversion for anti-PT, anti-FHA, anti-PRN, and anti-FIM Abs were defined as follows: a >= 4-fold rise in the respective PT, FHA, PRN, FIM Ab concentration between pre-dose 1 (Day 0) and post-dose 3 (Day 148). Analysis was performed on FAS population. Here, 'number of subjects analysed' = subjects evaluable for this endpoint.

End point type	Secondary

End point timeframe:

pre-dose 1 up to 28 days post third dose (i.e., Day 148)

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	225	227		
Units: percentage of subjects				
number (confidence interval 95%)				
Anti-PT	53.3 (46.6 to 60.0)	60.4 (53.7 to 66.8)		
Anti-FIM	89.3 (84.5 to 93.0)	93.0 (88.8 to 95.9)		
Anti-PRN	64.0 (57.4 to 70.3)	71.8 (65.5 to 77.6)		
Anti-FHA	36.9 (30.6 to 43.6)	48.0 (41.4 to 54.7)		

Statistical analyses

No statistical analyses for this end point

Secondary: Primary Phase: Geometric Mean Concentrations Ratios (GMCRs) of Antibodies Against all the Antigens

End point title	Primary Phase: Geometric Mean Concentrations Ratios (GMCRs) of Antibodies Against all the Antigens

End point description:

Antibodies to Diphtheria, Tetanus, Pertussis, PRN, FIM and FHA were measured by chemiluminescent

method; Anti-HBs by enzyme-linked immunosorbent assay (ELISA); Anti-PRP by polyribosyl-ribitol phosphate Radioimmune assay (PRP-RIA); Poliovirus types 1, 2, and 3 by micro metabolic Inhibition Testing (MIT). Geometric mean Concentrations (GMCs) of antibodies against various antigens were measured in terms of: Anti-D and Anti-T Ab titers: IU/mL; Anti-PT, Anti-FIM, Anti-PRN, Anti-FHA: EU/mL; Anti-HBs Ab titers: mIU/mL; Anti-PRP Ab titer: mcg/mL; and Anti-polio 1, 2, and 3 Ab titers: 1/dilution. GMCRs were calculated as the ratio of GMCs post vaccination (i.e., on Day 148) and pre-vaccination on Day 0. Analysis was performed on FAS population. Here, 'number of subjects analysed' = subjects evaluable for this endpoint and 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Day 0 (pre-vaccination) and 28 days post third dose (i.e. Day 148)

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	225	227		
Units: ratio				
geometric mean (confidence interval 95%)				
Anti-D (n=225,227)	17.8 (13.9 to 22.8)	22.0 (17.2 to 28.2)		
Anti-T (n=225,227)	3.35 (2.84 to 3.96)	3.71 (3.10 to 4.43)		
Anti-PT (n=225,227)	6.13 (4.04 to 9.30)	10.1 (6.72 to 15.1)		
Anti-FIM (n=225,227)	81.0 (60.2 to 109)	105 (79.0 to 140)		
Anti-PRN (n=225,227)	6.11 (4.78 to 7.81)	9.69 (7.49 to 12.5)		
Anti-FHA (n=225,227)	2.01 (1.50 to 2.68)	3.64 (2.68 to 4.95)		
Anti-PRP (n=224,225)	204 (159 to 262)	156 (125 to 195)		
Anti-HBs (n=224,225)	267 (203 to 350)	343 (267 to 441)		
Anti-Polio 1 (n=225,227)	340 (271 to 426)	225 (189 to 269)		
Anti-Polio 2 (n=221,224)	246 (201 to 301)	6.42 (5.27 to 7.82)		
Anti-Polio 3 (n=223,226)	576 (483 to 686)	237 (202 to 277)		

Statistical analyses

No statistical analyses for this end point

Secondary: Primary Phase: Geometric Mean Concentrations Ratios (GMCRs) of Antibodies Against Anti-rotavirus and Anti-S. pneumoniae Antigens

End point title	Primary Phase: Geometric Mean Concentrations Ratios (GMCRs) of Antibodies Against Anti-rotavirus and Anti-S. pneumoniae Antigens

End point description:

Anti-Rotavirus antibodies were detected by IgA enzyme immunoassay and Anti-Streptococcus pneumoniae antibodies (serotypes 1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F, and 23F) were detected by pneumococcal capsular polysaccharide (PnPS) immunoglobulin G (IgG) electrochemiluminescence (ECL) assay in human serum. GMCs of antibodies against anti-rotavirus antigens were measured in terms of U/mL and for pneumococcal serotypes in terms of mcg/mL. GMCRs were calculated as the ratio of GMCs post vaccination (i.e., on Day 148) and pre-vaccination on Day 0. Analysis was performed on FAS population. Here, 'number of subjects analysed' = subjects evaluable for this endpoint and 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Day 0 (pre-vaccination) and 28 days post third dose (i.e., Day 148)

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	111	114		
Units: ratio				
geometric mean (confidence interval 95%)				
Anti-rotavirus (n=111,110)	20.8 (15.4 to 28.2)	17.1 (12.2 to 23.9)		
Anti- pneumococcal serotype 1 (n=111, 114)	26.8 (22.1 to 32.5)	25.3 (19.6 to 32.7)		
Anti- pneumococcal serotype 3 (n=111,114)	8.51 (7.25 to 10.0)	7.54 (6.47 to 8.78)		
Anti- pneumococcal serotype 4 (n=111,114)	25.0 (21.0 to 29.7)	26.9 (23.1 to 31.2)		
Anti- pneumococcal serotype 5 (n=111,114)	25.5 (20.7 to 31.4)	26.1 (21.5 to 31.6)		
Anti- pneumococcal serotype 6A (n=111,114)	31.3 (23.6 to 41.4)	32.2 (25.5 to 40.6)		
Anti- pneumococcal serotype 6B (n=111,114)	14.9 (11.2 to 19.9)	17.1 (12.8 to 22.8)		
Anti- pneumococcal serotype 7F (n=111,114)	32.2 (27.4 to 37.8)	29.3 (24.1 to 35.7)		
Anti- pneumococcal serotype 9V (n=111,114)	23.7 (19.6 to 28.6)	20.0 (15.8 to 25.3)		
Anti- pneumococcal serotype 14 (n=110,113)	12.2 (8.79 to 17.1)	13.5 (9.63 to 18.9)		
Anti- pneumococcal serotype 18C (n=111,114)	16.1 (12.9 to 20.2)	17.2 (14.0 to 21.2)		
Anti- pneumococcal serotype 19A (n=111,114)	15.4 (11.8 to 20.1)	16.3 (12.6 to 20.9)		
Anti- pneumococcal serotype 19F (n=111,114)	28.9 (22.2 to 37.8)	29.7 (22.6 to 38.9)		
Anti- pneumococcal serotype 23F (n=111,114)	13.6 (10.2 to 17.9)	13.4 (10.3 to 17.6)		

Statistical analyses

No statistical analyses for this end point

Secondary: Primary Phase: Geometric Mean Concentrations (GMCs) of Antibodies Against all the Antigens

End point title	Primary Phase: Geometric Mean Concentrations (GMCs) of Antibodies Against all the Antigens

End point description:

Antibodies to Diphtheria, Tetanus, Pertussis, PRN, FIM and FHA were measured by chemiluminescent method; Anti-HBs by ELISA assay method; Anti-PRP by PRP-RIA; Poliovirus types 1, 2, and 3 by MIT. GMCs of antibodies against various antigens were measured in terms of: Anti-D and Anti-T Ab titers: IU/mL; Anti-PT, Anti-FIM, Anti-PRN, Anti-FHA: EU/mL; Anti-HBs Ab titers: mIU/mL; Anti-PRP Ab titer: mcg/mL; and Anti-polio 1, 2, and 3 Ab titers: 1/dilution. Analysis was performed on FAS population. Here, 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Day 0 (pre-vaccination) and 28 days post third dose (i.e., Day 148)

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	228	231		
Units: concentrations				
geometric mean (confidence interval 95%)				
Anti-D: Day 0 (n=228,231)	0.104 (0.087 to 0.123)	0.095 (0.080 to 0.113)		
Anti-D: Post-dose 3 (n=225,227)	1.85 (1.65 to 2.08)	2.09 (1.89 to 2.31)		
Anti-T: Day 0 (n=228,231)	1.37 (1.20 to 1.56)	1.21 (1.04 to 1.40)		
Anti-T: Post-dose 3 (n=225,227)	4.55 (4.14 to 5.01)	4.46 (4.07 to 4.90)		
Anti-PT: Day 0 (n=228,231)	6.81 (5.47 to 8.48)	6.50 (5.26 to 8.04)		
Anti-PT: Post-dose 3 (n=225,227)	42.0 (33.2 to 53.0)	64.6 (51.3 to 81.4)		
Anti-FIM: Day 0 (n=228,231)	11.2 (9.16 to 13.8)	10.9 (9.01 to 13.3)		
Anti-FIM: Post-dose 3 (n=225,227)	924 (796 to 1071)	1153 (982 to 1355)		
Anti-PRN: Day 0 (n=228,231)	3.63 (2.92 to 4.50)	4.06 (3.22 to 5.11)		
Anti-PRN: Post-dose 3 (n=225,227)	21.9 (18.6 to 25.8)	39.4 (34.3 to 45.1)		
Anti-FHA: Day 0 (n=228,231)	21.0 (16.7 to 26.5)	26.0 (20.5 to 32.9)		
Anti-FHA: Post-dose 3 (n=225,227)	42.4 (37.9 to 47.4)	92.8 (83.3 to 103)		
Anti-PRP: Day 0 (n=227,229)	0.077 (0.064 to 0.092)	0.072 (0.061 to 0.085)		
Anti-PRP: Post-dose 3 (n=225,227)	15.5 (13.3 to 18.0)	11.2 (9.56 to 13.1)		
Anti-HBs: Day 0 (n=227,229)	6.71 (5.47 to 8.23)	5.91 (4.94 to 7.08)		

Anti-HBs: Post-dose 3 (n=225,227)	1768 (1414 to 2210)	2034 (1649 to 2508)		
Anti-Polio 1: Day 0 (n=228,231)	6.54 (5.59 to 7.64)	6.66 (5.84 to 7.59)		
Anti-Polio 1: Post-dose 3 (n=225,227)	2205 (1936 to 2511)	1511 (1320 to 1731)		
Anti-Polio 2: Day 0 (n=225,228)	9.32 (8.03 to 10.8)	8.03 (6.92 to 9.31)		
Anti-Polio 2: Post-dose 3 (n=224,227)	2336 (2068 to 2639)	52.1 (46.4 to 58.5)		
Anti-Polio 3: Day 0 (n=228,230)	5.41 (4.85 to 6.03)	5.97 (5.37 to 6.64)		
Anti-Polio 3: Post-dose 3 (n=223,227)	3063 (2679 to 3502)	1413 (1251 to 1597)		

Statistical analyses

No statistical analyses for this end point

Secondary: Primary Phase: Geometric Mean Concentrations (GMCs) of Antibodies Against Anti-rotavirus and Anti-S. pneumoniae Antigens

End point title	Primary Phase: Geometric Mean Concentrations (GMCs) of Antibodies Against Anti-rotavirus and Anti-S. pneumoniae Antigens

End point description:

Anti-Rotavirus antibodies were detected by IgA enzyme immunoassay and Anti-Streptococcus pneumoniae (serotypes 1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F, and 23F) antibodies were detected by PnPS IgG ECL assay in human serum. GMCs of antibodies against anti-rotavirus antigens were measured in terms of U/mL and for pneumococcal serotypes in terms of mcg/mL. Analysis was performed on FAS population. Here, 'number of subjects analysed' = subjects evaluable for this endpoint and 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Day 0 (pre-vaccination) and 28 days post third dose (i.e., Day 148)

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	114	115		
Units: concentrations				
geometric mean (confidence interval 95%)				
Anti-rotavirus: Day 0 (n=113,114)	3.88 (3.75 to 4.01)	4.01 (3.77 to 4.27)		
Anti-rotavirus: Post-dose 3 (n=114,111)	78.8 (58.3 to 106)	69.7 (50.0 to 97.3)		
Serotype 1: Day 0 (n=112,115)	0.150 (0.130 to 0.174)	0.151 (0.126 to 0.180)		
Serotype 1: Post-dose 3 (n=111,115)	4.06 (3.51 to 4.70)	3.86 (3.31 to 4.50)		
Serotype 3: Day 0 (n=112,115)	0.103 (0.092 to 0.115)	0.097 (0.088 to 0.108)		

Serotype 3: Post-dose 3 (n=111,115)	0.879 (0.785 to 0.984)	0.739 (0.665 to 0.821)		
Serotype 4: Day 0 (n=112,115)	0.098 (0.088 to 0.110)	0.092 (0.083 to 0.102)		
Serotype 4: Post-dose 3 (n=111,115)	2.46 (2.20 to 2.76)	2.50 (2.25 to 2.78)		
Serotype 5: Day 0 (n=112,115)	0.115 (0.100 to 0.132)	0.115 (0.100 to 0.132)		
Serotype 5: Post-dose 3 (n=111,115)	2.92 (2.54 to 3.37)	3.02 (2.65 to 3.45)		
Serotype 6A: Day 0 (n=112,115)	0.168 (0.137 to 0.205)	0.173 (0.145 to 0.208)		
Serotype 6A: Post-dose 3 (n=111,115)	5.29 (4.54 to 6.16)	5.68 (4.90 to 6.59)		
Serotype 6B: Day 0 (n=112,115)	0.150 (0.126 to 0.179)	0.155 (0.130 to 0.184)		
Serotype 6B: Post-dose 3 (n=111,115)	2.26 (1.80 to 2.83)	2.69 (2.20 to 3.29)		
Serotype 7F: Day 0 (n=112,115)	0.130 (0.114 to 0.148)	0.134 (0.115 to 0.155)		
Serotype 7F: Post-dose 3 (n=111,115)	4.18 (3.77 to 4.64)	3.95 (3.55 to 4.40)		
Serotype 9V: Day 0 (n=112,115)	0.138 (0.119 to 0.160)	0.149 (0.127 to 0.175)		
Serotype 9V: Post-dose 3 (n=111,115)	3.28 (2.89 to 3.72)	2.96 (2.59 to 3.40)		
Serotype 14: Day 0 (n=111,114)	0.935 (0.729 to 1.20)	0.850 (0.666 to 1.09)		
Serotype 14: Post-dose 3 (n=111,115)	11.4 (9.71 to 13.3)	11.5 (9.68 to 13.6)		
Serotype 18C: Day 0 (n=112,115)	0.185 (0.155 to 0.222)	0.174 (0.149 to 0.204)		
Serotype 18C: Post-dose 3 (n=111,115)	3.01 (2.68 to 3.39)	3.00 (2.67 to 3.37)		
Serotype 19A: Day 0 (n=112,115)	0.227 (0.188 to 0.275)	0.219 (0.181 to 0.265)		
Serotype 19A: Post-dose 3 (n=111,115)	3.51 (3.06 to 4.04)	3.63 (3.16 to 4.17)		
Serotype 19F: Day 0 (n=112,115)	0.198 (0.162 to 0.243)	0.191 (0.158 to 0.232)		
Serotype 19F: Post-dose 3 (n=111,115)	5.79 (5.12 to 6.54)	5.74 (4.83 to 6.82)		
Serotype 23F: Day 0 (n=112,115)	0.172 (0.142 to 0.207)	0.189 (0.154 to 0.232)		
Serotype 23F: Post-dose 3 (n=111,115)	2.34 (1.97 to 2.80)	2.55 (2.19 to 2.98)		

Statistical analyses

No statistical analyses for this end point

Secondary: Primary Phase: Percentage of Subjects With >=4-fold Rise Against Anti-rotavirus Antibody Titers

End point title	Primary Phase: Percentage of Subjects With >=4-fold Rise Against Anti-rotavirus Antibody Titers

End point description:

Anti-Rotavirus antibodies were detected by IgA enzyme immunoassay. Percentage of subjects with >= 4-fold rise in serum IgA anti-rotavirus Ab titers were reported in this endpoint. Analysis was performed

on FAS population. Here, 'number of subjects analysed' = subjects evaluable for this endpoint.

End point type	Secondary

End point timeframe:

28 days post third dose (i.e., Day 148)

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	111	110		
Units: percentage of subjects				
number (confidence interval 95%)	83.8 (75.6 to 90.1)	79.1 (70.3 to 86.3)		

Statistical analyses

No statistical analyses for this end point

Secondary: Primary Phase: Percentage of Subjects With Anti-pneumococcal Titers Greater than or equal to (>=) 0.35 mcg/mL

End point title	Primary Phase: Percentage of Subjects With Anti-pneumococcal Titers Greater than or equal to (>=) 0.35 mcg/mL

End point description:

Anti-Streptococcus pneumoniae (serotypes 1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F, and 23F) antibodies were detected by PnPS IgG ECL assay in human serum. GMCs of antibodies against anti-rotavirus antigens were measured in terms of U/mL and for pneumococcal serotypes in terms of mcg/mL. Analysis was performed on FAS population. Here, 'number of subjects analysed' = subjects evaluable for this endpoint and 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Day 0 (pre-vaccination) and 28 days post third dose (i.e., Day 148)

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	112	115		
Units: percentage of subjects				
number (confidence interval 95%)				
Serotype 1: Day 0 (n=112,115)	17.9 (11.3 to 26.2)	19.1 (12.4 to 27.5)		
Serotype 1: Post-dose 3 (n=111,115)	100 (96.7 to 100)	99.1 (95.3 to 100)		
Serotype 3: Day 0 (n=112,115)	8.9 (4.4 to 15.8)	3.5 (1.0 to 8.7)		

Serotype 3: Post-dose 3 (n=111,115)	94.6 (88.6 to 98.0)	94.8 (89.0 to 98.1)		
Serotype 4: Day 0 (n=112,115)	5.4 (2.0 to 11.3)	5.2 (1.9 to 11.0)		
Serotype 4: Post-dose 3 (n=111,115)	100 (96.7 to 100)	100 (96.8 to 100)		
Serotype 5: Day 0 (n=112,115)	13.4 (7.7 to 21.1)	11.3 (6.2 to 18.6)		
Serotype 5: Post-dose 3 (n=111,115)	98.2 (93.6 to 99.8)	100 (96.8 to 100)		
Serotype 6A: Day 0 (n=112,115)	25.0 (17.3 to 34.1)	20.0 (13.1 to 28.5)		
Serotype 6A: Post-dose 3 (n=111,115)	99.1 (95.1 to 100)	99.1 (95.3 to 100)		
Serotype 6B: Day 0 (n=112,115)	17.9 (11.3 to 26.2)	18.3 (11.7 to 26.5)		
Serotype 6B: Post-dose 3 (n=111,115)	91.0 (84.1 to 95.6)	95.7 (90.1 to 98.6)		
Serotype 7F: Day 0 (n=112,115)	8.0 (3.7 to 14.7)	13.0 (7.5 to 20.6)		
Serotype 7F: Post-dose 3 (n=111,115)	100 (96.7 to 100)	100 (96.8 to 100)		
Serotype 9V: Day 0 (n=112,115)	16.1 (9.8 to 24.2)	17.4 (11.0 to 25.6)		
Serotype 9V: Post-dose 3 (n=111,115)	100 (96.7 to 100)	99.1 (95.3 to 100)		
Serotype 14: Day 0 (n=111,114)	80.2 (71.5 to 87.1)	78.1 (69.4 to 85.3)		
Serotype 14: Post-dose 3 (n=111,115)	100 (96.7 to 100)	100 (96.8 to 100)		
Serotype 18C: Day 0 (n=112,115)	24.1 (16.5 to 33.1)	23.5 (16.1 to 32.3)		
Serotype 18C: Post-dose 3 (n=111,115)	100 (96.7 to 100)	100 (96.8 to 100)		
Serotype 19A: Day 0 (n=112,115)	30.4 (22.0 to 39.8)	35.7 (26.9 to 45.1)		
Serotype 19A: Post-dose 3 (n=111,115)	100 (96.7 to 100)	100 (96.8 to 100)		
Serotype 19F: Day 0 (n=112,115)	28.6 (20.4 to 37.9)	30.4 (22.2 to 39.7)		
Serotype 19F: Post-dose 3 (n=111,115)	100 (96.7 to 100)	98.3 (93.9 to 99.8)		
Serotype 23F: Day 0 (n=112,115)	26.8 (18.9 to 36.0)	27.8 (19.9 to 37.0)		
Serotype 23F: Post-dose 3 (n=111,115)	98.2 (93.6 to 99.8)	98.3 (93.9 to 99.8)		

Statistical analyses

No statistical analyses for this end point

Secondary: Booster Phase: Percentage of Subjects With Antibody Titers Above Predefined Thresholds Against Diphtheria (D), Tetanus (T), Hepatitis B (Hep B), Haemophilus influenzae type b (Hib [PRP]) and Poliovirus (Polio) Antigens Following Booster Vaccination

End point title	Booster Phase: Percentage of Subjects With Antibody Titers Above Predefined Thresholds Against Diphtheria (D), Tetanus (T), Hepatitis B (Hep B), Haemophilus influenzae type b (Hib

	[PRP]) and Poliovirus (Polio) Antigens Following Booster Vaccination

End point description:

Antibody titers above the following cut-off for each antigen were defined as: Anti-D Ab titers >= 0.01 IU/mL, >= 0.1 IU/mL, and >= 1.0 IU/mL; Anti-T Ab titers >= 0.01 IU/mL, >= 0.1 IU/mL, and >= 1.0 IU/mL; Anti-HBs Ab titers >=10 mIU/mL and >= 100 mIU/mL; Anti-PRP Ab titers >= 0.15 mcg/mL and >=1.0 mcg/mL; Anti-Polio 1, 2, and 3 Ab titers >= 8 (1/dilution). Analysis was performed on FAS for booster defined as the subset of randomised subjects who received the SHAN6 booster vaccination. Here, 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Pre-booster and 28 days after the booster dose (at Day 416-506)

End point values	Booster Phase: Group A: SHAN6/SHAN6	Booster Phase: Group B: SHAN 5+bOPV+IPV/S HAN6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	166	167		
Units: percentage of subjects				
number (confidence interval 95%)				
Anti-D: Pre-booster: >=0.01 (n=166,167)	100 (97.8 to 100)	100 (97.8 to 100)		
Anti-D: Pre-booster: >=0.1 (n=166,167)	92.8 (87.7 to 96.2)	91.0 (85.6 to 94.9)		
Anti-D: Pre-booster: >=1 (n=166,167)	16.3 (11.0 to 22.8)	24.6 (18.2 to 31.8)		
Anti-D: Post-booster: >=0.01 (n=165,167)	100 (97.8 to 100)	100 (97.8 to 100)		
Anti-D: Post-booster: >=0.1 (n=165,167)	100 (97.8 to 100)	100 (97.8 to 100)		
Anti-D: Post-booster: >=1 (n=165,167)	98.8 (95.7 to 99.9)	100 (97.8 to 100)		
Anti-T: Pre-booster: >=0.01 (n=166,167)	100 (97.8 to 100)	100 (97.8 to 100)		
Anti-T: Pre-booster: >=0.1 (n=166,167)	98.8 (95.7 to 99.9)	98.8 (95.7 to 99.9)		
Anti-T: Pre-booster: >=1 (n=166,167)	41.0 (33.4 to 48.9)	44.9 (37.2 to 52.8)		
Anti-T: Post-booster: >=0.01 (n=165,167)	100 (97.8 to 100)	100 (97.8 to 100)		
Anti-T: Post-booster: >=0.1 (n=165,167)	100 (97.8 to 100)	100 (97.8 to 100)		
Anti-T: Post-booster: >=1 (n=165,167)	100 (97.8 to 100)	100 (97.8 to 100)		
Anti-HBs: Pre-booster: >=10 (n=166,167)	86.1 (79.9 to 91.0)	91.6 (86.3 to 95.3)		
Anti-HBs: Pre-booster: >=100 (n=166,167)	53.6 (45.7 to 61.4)	63.5 (55.7 to 70.8)		
Anti-HBs: Post-booster: >=10 (n=164,167)	98.8 (95.7 to 99.9)	98.8 (95.7 to 99.9)		
Anti-HBs: Post-booster: >=100 (n=164,167)	97.6 (93.9 to 99.3)	97.6 (94.0 to 99.3)		
Anti-PRP: Pre-booster: >=0.15 (n=166,166)	93.4 (88.5 to 96.6)	95.2 (90.7 to 97.9)		
Anti-PRP: Pre-booster: >=1.0 (n=166,166)	74.7 (67.4 to 81.1)	75.9 (68.7 to 82.2)		

Anti-PRP: Post-booster: >=0.15 (n=165,167)	100 (97.8 to 100)	100 (97.8 to 100)		
Anti-PRP: Post-booster: >=1.0 (n=165,167)	100 (97.8 to 100)	100 (97.8 to 100)		
Anti-Polio 1: Pre-booster: >=8 (n=166,167)	100 (97.8 to 100)	100 (97.8 to 100)		
Anti-Polio 1: Post-booster: >=8 (n=165,166)	100 (97.8 to 100)	100 (97.8 to 100)		
Anti-Polio 2: Pre-booster: >=8 (n=166,167)	100 (97.8 to 100)	99.4 (96.7 to 100)		
Anti-Polio 2: Post-booster: >=8 (n=165,167)	100 (97.8 to 100)	100 (97.8 to 100)		
Anti-Polio 3: Pre-booster: >=8 (n=166,167)	98.8 (95.7 to 99.9)	100 (97.8 to 100)		
Anti-Polio 3: Post-booster: >=8 (n=165,167)	100 (97.8 to 100)	100 (97.8 to 100)		

Statistical analyses

No statistical analyses for this end point

Secondary: Booster Phase: Percentage of Subjects With Vaccine Response Against Pertussis Antigens Following Booster Vaccination

End point title	Booster Phase: Percentage of Subjects With Vaccine Response Against Pertussis Antigens Following Booster Vaccination

End point description:

Booster vaccine response for anti-PT, anti-FHA, anti-PRN, and anti-FIM Abs was defined as follows: post-booster vaccination concentration >=4*the pre-booster concentration of the assay, if the pre-booster concentration is < 4*LLOQ of the assay or post-booster vaccination concentration >=2*the pre-booster concentration, if the pre-booster concentration is >=4*LLOQ of the assay. Analysis was performed on FAS for booster phase. Here, 'number of subjects analysed' = subjects evaluable for this endpoint.

End point type	Secondary

End point timeframe:

28 days after the booster dose (at Day 416-506)

End point values	Booster Phase: Group A: SHAN6/SHAN6	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	165	167		
Units: percentage of subjects				
number (confidence interval 95%)				
Anti-PT	92.1 (86.9 to 95.7)	89.8 (84.2 to 94.0)		
Anti-FIM	100 (97.8 to 100)	98.2 (94.8 to 99.6)		
Anti-PRN	90.3 (84.7 to 94.4)	96.4 (92.3 to 98.7)		
Anti-FHA	97.0 (93.1 to 99.0)	98.8 (95.7 to 99.9)		

Statistical analyses

No statistical analyses for this end point

Secondary: Booster Phase: Percentage of Subjects With Vaccine Seroconversion Against Pertussis Antigens Following Booster Vaccination

End point title	Booster Phase: Percentage of Subjects With Vaccine Seroconversion Against Pertussis Antigens Following Booster Vaccination

End point description:

Pertussis antigens seroconversion status for anti-PT, anti-FHA, anti-PRN, and anti-FIM Abs defined as follows: a >= 4-fold rise in the respective PT, FHA, PRN, FIM Ab concentration between pre-booster and post-booster. Analysis was performed on FAS population for booster phase. Here, 'number of subjects analysed' = subjects evaluable for this endpoint.

End point type	Secondary

End point timeframe:

pre-booster up to 28 days after the booster dose (at Day 416-506)

End point values	Booster Phase: Group A: SHAN6/SHAN6	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	165	167		
Units: percentage of subjects				
number (confidence interval 95%)				
Anti-PT	89.7 (84.0 to 93.9)	83.8 (77.4 to 89.1)		
Anti-FIM	98.2 (94.8 to 99.6)	86.2 (80.1 to 91.1)		
Anti-PRN	92.1 (86.9 to 95.7)	96.4 (92.3 to 98.7)		
Anti-FHA	96.4 (92.3 to 98.7)	93.4 (88.5 to 96.7)		

Statistical analyses

No statistical analyses for this end point

Secondary: Booster Phase: Geometric Mean Concentrations Ratios (GMCRs) of Antibodies Against all the Antigens Following Booster Vaccination

End point title	Booster Phase: Geometric Mean Concentrations Ratios (GMCRs) of Antibodies Against all the Antigens Following Booster Vaccination

End point description:

Antibodies to Diphtheria, Tetanus, PT, PRN, FIM and FHA were measured by chemiluminescent method; Anti-HBs by ELISA; Anti-PRP by PRP-RIA; Poliovirus types 1, 2, and 3 by MIT. GMCs of antibodies against various antigens were measured in terms of: Anti-D and Anti-T Ab titers: IU/mL; Anti-PT, Anti-FIM, Anti-PRN, Anti-FHA: EU/mL; Anti-HBs Ab titers: mIU/mL; Anti-PRP Ab titer: mcg/mL; and Anti-polio 1, 2, and 3 Ab titers: 1/dilution. GMCRs were calculated as the ratio of GMCs post booster (i.e., on Day 388-478 and Day 416-506) and pre-booster. Analysis was performed on FAS population for booster phase. Here, 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Pre-booster and 28 days after the booster dose (at Day 416-506)

End point values	Booster Phase: Group A: SHAN6/SHAN6	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	166	167		
Units: ratio				
geometric mean (confidence interval 95%)				
Anti-D (n=165,167)	14.8 (13.1 to 16.6)	14.2 (12.5 to 16.0)		
Anti-T (n=165,167)	17.7 (16.0 to 19.6)	17.1 (15.5 to 18.8)		
Anti-PT (n=165,167)	13.3 (11.5 to 15.5)	8.80 (7.74 to 10.0)		
Anti-FIM (n=165,167)	13.9 (12.3 to 15.8)	10.1 (8.86 to 11.4)		
Anti-PRN (n=165,167)	14.8 (12.8 to 17.1)	16.2 (14.5 to 18.2)		
Anti-FHA (n=165,167)	12.7 (11.4 to 14.0)	9.91 (9.09 to 10.8)		
Anti-PRP (n=165,166)	30.4 (24.9 to 37.3)	26.1 (21.7 to 31.6)		
Anti-HBs (n=164,167)	51.5 (42.3 to 62.8)	39.1 (32.0 to 47.7)		
Anti-Polio 1 (n=165,166)	13.1 (11.0 to 15.6)	5.11 (4.31 to 6.05)		
Anti-Polio 2 (n=165,167)	17.6 (15.0 to 20.7)	37.0 (31.2 to 43.9)		
Anti-Polio 3 (n=165,167)	21.6 (17.7 to 26.3)	8.32 (6.94 to 9.97)		

Statistical analyses

No statistical analyses for this end point

Secondary: Booster Phase: Geometric Mean Concentrations (GMCs) of Antibodies Against all the Antigens Following Booster Vaccination

End point title	Booster Phase: Geometric Mean Concentrations (GMCs) of Antibodies Against all the Antigens Following Booster Vaccination

End point description:

Antibodies to Diphtheria, Tetanus, Pertussis, PRN, FIM and FHA were measured by chemiluminescent method; Anti-HBs by ELISA; Anti-PRP by PRP-RIA; Poliovirus types 1, 2, and 3 by MIT. GMCs of antibodies against various antigens were measured in terms of: Anti-D and Anti-T Ab titers: IU/mL; Anti-PT, Anti-FIM, Anti-PRN, Anti-FHA: EU/mL; Anti-HBs Ab titers: mIU/mL; Anti-PRP Ab titer: mcg/mL; and Anti-polio 1, 2, and 3 Ab titers: 1/dilution. Analysis was performed on FAS for booster phase. Here, 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Pre-booster and 28 days post-booster dose (at Day 416-506)

End point values	Booster Phase: Group A: SHAN6/SHAN6	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	166	167		
Units: concentrations				
geometric mean (confidence interval 95%)				
Anti-D: Pre-booster (n=166,167)	0.403 (0.348 to 0.468)	0.472 (0.403 to 0.553)		
Anti-D: Post-booster (n=165,167)	5.95 (5.34 to 6.64)	6.69 (6.07 to 7.37)		
Anti-T: Pre-booster (n=166,167)	0.803 (0.711 to 0.906)	0.816 (0.723 to 0.921)		
Anti-T: Post-booster (n=165,167)	14.2 (12.9 to 15.7)	13.9 (12.7 to 15.3)		
Anti-PT: Pre-booster (n=166,167)	6.48 (5.15 to 8.16)	11.1 (8.78 to 13.9)		
Anti-PT: Post-booster (n=165,167)	87.5 (71.0 to 108)	97.4 (79.6 to 119)		
Anti-FIM: Pre-booster (n=166,167)	86.6 (72.3 to 104)	122 (101 to 148)		
Anti-FIM: Post-booster (n=165,167)	1213 (1068 to 1377)	1230 (1064 to 1422)		
Anti-PRN: Pre-booster (n=166,167)	2.86 (2.44 to 3.36)	5.01 (4.25 to 5.92)		
Anti-PRN: Post-booster (n=165,167)	42.2 (34.6 to 51.4)	81.4 (68.8 to 96.3)		
Anti-FHA: Pre-booster (n=166,167)	6.82 (5.94 to 7.82)	16.2 (14.2 to 18.5)		
Anti-FHA: Post-booster (n=165,167)	86.5 (74.6 to 100)	161 (143 to 181)		
Anti-PRP: Pre-booster (n=166,166)	2.21 (1.73 to 2.83)	2.28 (1.81 to 2.87)		
Anti-PRP: Post-booster (n=165,167)	69.1 (58.9 to 81.1)	59.7 (51.5 to 69.3)		
Anti-HBs: Pre-booster (n=166,167)	110 (80.8 to 149)	165 (125 to 218)		
Anti-HBs: Post-booster (n=164,167)	5604 (4258 to 7375)	6449 (5048 to 8239)		
Anti-Polio 1: Pre-booster (n=166,167)	252 (209 to 303)	556 (476 to 650)		
Anti-Polio 1: Post-booster (n=165,166)	3320 (2948 to 3739)	2825 (2516 to 3171)		
Anti-Polio 2: Pre-booster (n=166,167)	304 (255 to 364)	97.3 (83.1 to 114)		

Anti-Polio 2: Post-booster (n=165,167)	5348 (4637 to 6169)	3601 (3150 to 4117)		
Anti-Polio 3: Pre-booster (n=166,167)	236 (188 to 297)	562 (482 to 656)		
Anti-Polio 3: Post-booster (n=165,167)	5117 (4400 to 5952)	4678 (4155 to 5266)		

Statistical analyses

No statistical analyses for this end point

Secondary: Booster Phase: Adjusted Geometric Mean Concentrations (aGMCs) of Antibodies Against Pertussis Antigens Following Booster Vaccination

End point title	Booster Phase: Adjusted Geometric Mean Concentrations (aGMCs) of Antibodies Against Pertussis Antigens Following Booster Vaccination

End point description:

Adjusted geometric mean concentrations for anti-PT, anti-FIM, anti-PRN and anti-FHA were measured by EU/mL. The adjusted GMCs was computed using analysis of covariance to adjust for baseline disparities and to consider the correlation between pre- and post- concentration, through an ANCOVA model using the pre-vaccination (Day 0) log-transformed concentration as a covariate for adjustment in order to account for the associated variability. Analysis was performed on FAS for booster phase.

End point type	Secondary

End point timeframe:

28 days after the booster dose (at Day 416-506)

End point values	Booster Phase: Group A: SHAN6/SHAN6	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	166	167		
Units: EU/mL				
geometric mean (confidence interval 95%)				
Anti-PT	105.5 (93.1 to 119.5)	81.0 (71.5 to 91.7)		
Anti-FIM	1328.6 (1211.1 to 1457.5)	1124.5 (1025.6 to 1232.9)		
Anti-PRN	53.2 (46.7 to 60.5)	64.8 (57.0 to 73.6)		
Anti-FHA	119.6 (108.9 to 131.3)	116.8 (106.5 to 128.2)		

Statistical analyses

No statistical analyses for this end point

Secondary: Primary Phase: Number of Subjects Reporting Immediate Unsolicited Adverse Events (AEs)

End point title	Primary Phase: Number of Subjects Reporting Immediate Unsolicited Adverse Events (AEs)

End point description:

An AE was defined as any untoward medical occurrence in a subject who received study vaccine and does not necessarily had to have a causal relationship with treatment. An unsolicited AE was an observed AE that did not fulfill the conditions prelisted in the case report book (CRB) in terms of diagnosis and/or onset post-vaccination. All subjects were observed for 30 minutes after any vaccination, and any unsolicited AEs occurred during that time were recorded as immediate unsolicited AEs in the CRB. Analysis was performed on safety analysis set (SafAS) that included subjects who had received at least one dose of the study vaccine and were analysed according to the actual treatment received.

End point type	Secondary

End point timeframe:

Within 30 minutes post-vaccination

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	228	231		
Units: subjects				
number (not applicable)	0	0		

Statistical analyses

No statistical analyses for this end point

Secondary: Primary Phase: Number of Subjects Reporting Solicited Injection Site Reactions

End point title	Primary Phase: Number of Subjects Reporting Solicited Injection Site Reactions

End point description:

A solicited reaction (SR) was an expected adverse reaction (AR) observed and reported under conditions (nature and onset) prelisted (i.e., solicited) in the CRB and considered as related to vaccination. An AR was all noxious and unintended responses to a medicinal product related to any dose. Solicited injection site reactions included injection site tenderness, erythema and site swelling. Analysis was performed on SafAS. Here, 'n' = subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Within 7 days after any and each vaccination (Vaccination 1, 2, 3)

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	228	231		
Units: subjects				
number (not applicable)				
Tenderness: Post any vaccination (n=228,230)	210	202		
Tenderness: Post vaccination 1 (n=228,230)	174	168		
Tenderness: Post vaccination 2 (n=225,228)	180	150		
Tenderness: Post vaccination 3 (n=225,228)	168	155		
Erythema: Post any vaccination (n=228,230)	128	100		
Erythema: Post vaccination 1 (n=228,230)	80	71		
Erythema: Post vaccination 2 (n=225,228)	82	52		
Erythema: Post vaccination 3 (n=225,228)	73	51		
Swelling: Post any vaccination (n=228,230)	98	89		
Swelling: Post vaccination 1 (n=228,230)	62	70		
Swelling: Post vaccination 2 (n=225,228)	55	43		
Swelling: Post vaccination 3 (n=225,228)	49	42		

Statistical analyses

No statistical analyses for this end point

Secondary: Primary Phase: Number of Subjects With Solicited Systemic Reactions

End point title	Primary Phase: Number of Subjects With Solicited Systemic Reactions

End point description:

SR was an expected AR observed and reported under conditions (nature and onset) prelisted (i.e., solicited) in the CRB and considered as related to vaccination. An AR was all noxious and unintended responses to a medicinal product related to any dose. Solicited systemic reactions included fever, vomiting, crying abnormal, drowsiness, appetite lost and irritability. Analysis was performed on SafAS. Here, 'n' =subjects with available data for each specified category.

End point type	Secondary

End point timeframe:

Within 7 days after any and each vaccination (Vaccination 1, 2, 3)

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	228	231		
Units: subjects				
number (not applicable)				
Fever: Post any vaccination (n=228,230)	157	130		
Fever: Post vaccination 1 (n=228,230)	97	73		
Fever: Post vaccination 2 (n=225,228)	100	69		
Fever: Post vaccination 3 (n=225,228)	92	65		
Vomiting: Post any vaccination (n=228,230)	75	67		
Vomiting: Post vaccination 1 (n=228,230)	40	38		
Vomiting: Post vaccination 2 (n=225,228)	31	32		
Vomiting: Post vaccination 3 (n=225,228)	43	21		
Crying abnormal: Post any vaccination (n=228,230)	206	207		
Crying abnormal: Post vaccination 1 (n=228,230)	176	165		
Crying abnormal: Post vaccination 2 (n=225,228)	171	154		
Crying abnormal: Post vaccination 3 (n=225,228)	159	140		
Drowsiness: Post any vaccination (n=228,230)	183	189		
Drowsiness: Post vaccination 1 (n=228,230)	148	143		
Drowsiness: Post vaccination 2 (n=225,228)	133	124		
Drowsiness: Post vaccination 3 (n=225,228)	116	113		
Appetite lost: Post any vaccination (n=228,230)	141	114		
Appetite lost: Post vaccination 1 (n=228,230)	97	78		
Appetite lost: Post vaccination 2 (n=225,228)	69	56		
Appetite lost: Post vaccination 3 (n=225,228)	74	51		
Irritability: Post any vaccination (n=228,230)	196	193		
Irritability: Post vaccination 1 (n=228,230)	162	159		
Irritability: Post vaccination 2 (n=225,228)	144	127		
Irritability: Post vaccination 3 (n=225,228)	143	124		

Statistical analyses

No statistical analyses for this end point

Secondary: Primary Phase: Number of Subjects Reporting Unsolicited Adverse Events (AEs)

End point title	Primary Phase: Number of Subjects Reporting Unsolicited Adverse Events (AEs)

End point description:

An AE was defined as any untoward medical occurrence in a subject who received study vaccine and does not necessarily had to have a causal relationship with treatment. An unsolicited AE was an observed AE that did not fulfill the conditions prelisted in the CRB in terms of diagnosis and/or onset post-vaccination. Analysis was performed on SafAS.

End point type	Secondary

End point timeframe:

From Day 0 up to Day 28 post-vaccination

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	228	231		
Units: subjects				
number (not applicable)	44	45		

Statistical analyses

No statistical analyses for this end point

Secondary: Primary Phase: Number of Subjects Reporting Serious Adverse Events (SAEs)

End point title	Primary Phase: Number of Subjects Reporting Serious Adverse Events (SAEs)

End point description:

An AE was defined as any untoward medical occurrence in a subject who received study vaccine and does not necessarily had to have a causal relationship with treatment. An SAE was any untoward medical occurrence that at any dose resulted in death, life-threatening, initial or prolonged inpatient hospitalization, persistent or significant disability/incapacity, congenital anomaly/birth defect or a medically important event. Analysis was performed on SafAS.

End point type	Secondary

End point timeframe:

From Baseline up to Day 148 post-vaccination

End point values	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	228	231		
Units: subjects				
number (not applicable)	19	17		

Statistical analyses

No statistical analyses for this end point

Secondary: Booster Phase: Number of Subjects Reporting Immediate Unsolicited AEs Following Booster Vaccination

End point title	Booster Phase: Number of Subjects Reporting Immediate Unsolicited AEs Following Booster Vaccination

End point description:

An AE was defined as any untoward medical occurrence in a subject who received study vaccine and does not necessarily had to have a causal relationship with treatment. An unsolicited AE was an observed AE that did not fulfill the conditions prelisted in the CRB in terms of diagnosis and/or onset post-vaccination. All subjects were observed for 30 minutes after any vaccination, and any unsolicited AEs occurred during that time were recorded as immediate unsolicited AEs in the CRB. Analysis was performed on SafAS for booster phase defined as the subset of randomised subjects who received the SHAN6 booster vaccination.

End point type	Secondary

End point timeframe:

Within 30 minutes post-vaccination

End point values	Booster Phase: Group A: SHAN6/SHAN6	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	166	167		
Units: subjects				
number (not applicable)	0	0		

Statistical analyses

No statistical analyses for this end point

Secondary: Booster Phase: Number of Subjects Reporting Solicited Injection Site Reactions Following Booster Vaccination

End point title	Booster Phase: Number of Subjects Reporting Solicited Injection Site Reactions Following Booster Vaccination

End point description:

A SR was an expected AR observed and reported under conditions (nature and onset) prelisted (i.e.,

solicited) in the CRB and considered as related to vaccination. An AR was all noxious and unintended responses to a medicinal product related to any dose. Solicited injection site reactions included injection site tenderness, erythema and site swelling. Analysis was performed on SafAS for booster phase.

End point type	Secondary

End point timeframe:

Within 7 days post-vaccination

End point values	Booster Phase: Group A: SHAN6/SHAN6	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	166	167		
Units: subjects				
number (not applicable)				
Tenderness: Post any vaccination	126	122		
Erythema: Post any vaccination	45	49		
Swelling: Post any vaccination	40	40		

Statistical analyses

No statistical analyses for this end point

Secondary: Booster Phase: Number of Subjects With Solicited Systemic Reactions Following Booster Vaccination

End point title	Booster Phase: Number of Subjects With Solicited Systemic Reactions Following Booster Vaccination

End point description:

SR was an expected AR observed and reported under conditions (nature and onset) prelisted (i.e., solicited) in the CRB and considered as related to vaccination. An AR was all noxious and unintended responses to a medicinal product related to any dose. Solicited systemic reactions included fever, vomiting, crying abnormal, drowsiness, appetite lost and irritability. Analysis was performed on SafAS for booster phase.

End point type	Secondary

End point timeframe:

Within 7 days post-vaccination

End point values	Booster Phase: Group A: SHAN6/SHAN6	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	166	167		
Units: subjects				
number (not applicable)				
Fever	55	53		
Vomiting	15	16		

Crying abnormal	110	104		
Drowsiness	85	91		
Appetite lost	75	72		
Irritability	105	103		

Statistical analyses

No statistical analyses for this end point

Secondary: Booster Phase: Number of Subjects Reporting Unsolicited AEs Following Booster Vaccination

End point title	Booster Phase: Number of Subjects Reporting Unsolicited AEs Following Booster Vaccination

End point description:

An AE was defined as any untoward medical occurrence in a subject who received study vaccine and does not necessarily had to have a causal relationship with treatment. An unsolicited AE was an observed AE that did not fulfill the conditions prelisted in the CRB in terms of diagnosis and/or onset post-vaccination. Analysis was performed on SafAS for booster phase.

End point type	Secondary

End point timeframe:

From Day 0 up to Day 28 post-vaccination

End point values	Booster Phase: Group A: SHAN6/SHAN6	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	166	167		
Units: subjects				
number (not applicable)	7	7		

Statistical analyses

No statistical analyses for this end point

Secondary: Booster Phase: Number of Subjects Reporting Serious Adverse Events (SAEs) Following Booster Vaccination

End point title	Booster Phase: Number of Subjects Reporting Serious Adverse Events (SAEs) Following Booster Vaccination

End point description:

An AE was defined as any untoward medical occurrence in a subject who received study vaccine and does not necessarily had to have a causal relationship with treatment. An SAE was any untoward medical occurrence that at any dose resulted in death, life-threatening, initial or prolonged inpatient hospitalisation, persistent or significant disability/incapacity, congenital anomaly/birth defect or a medically important event. Analysis was performed on SafAS for booster phase.

End point type	Secondary

End point timeframe:

From Day 148 up to Day 506 post booster injection

End point values	Booster Phase: Group A: SHAN6/SHAN6	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	166	167		
Units: subjects				
number (not applicable)	5	2		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Unsolicited non-serious AEs: Day 0 to Day 28 post any vaccination SR: within 7 post any vaccination; SAE: up to Day 148 for primary phase; up to Day 506 for booster phase

Adverse event reporting additional description:

Analysed on SafAS. SR was AE that was prelisted (i.e., solicited) in the eCRF and considered to be related to vaccination (adverse drug reaction). An unsolicited AE was an observed AE that did not fulfill the conditions prelisted (i.e., solicited) in the eCRF in terms of symptom and/or onset post-vaccination.

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	24.1

Reporting groups

Reporting group title	Primary Phase: Group A: SHAN6

Reporting group description:

Subjects aged 2 months (at the time of enrollment) received SHAN6 vaccine at the age of Months 2, 4, and 6, co-administered with Prevnar 13 vaccine at the age of Months 2, 4, and 6; and Rotarix (Rotavirus) vaccine at the age of Months 2, and 4.

Reporting group title	Primary Phase: Group B: SHAN 5 + bOPV + IPV

Reporting group description:

Subjects aged 2 months (at the time of enrollment) received SHAN5™ along with bOPV at the age of Months 2, 4, and 6, and IPV at the age of Month 4; co-administered with Prevnar 13 vaccine at the age of Months 2, 4, and 6; and Rotarix (Rotavirus) vaccine at the age of Months 2, and 4.

Reporting group title	Booster Phase: Group A: SHAN6/SHAN6

Reporting group description:

Subjects who received vaccination in primary series and completed the safety follow-up period received a booster injection of SHAN6 in the booster phase at 15-18 months of age.

Reporting group title	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN6

Reporting group description:

Subjects who received vaccination in primary phase and completed the safety follow-up period received a booster injection of SHAN6 in the booster phase at 15-18 months of age.

Serious adverse events	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV	Booster Phase: Group A: SHAN6/SHAN6
Total subjects affected by serious adverse events			
subjects affected / exposed	19 / 228 (8.33%)	17 / 231 (7.36%)	5 / 166 (3.01%)
number of deaths (all causes)	1	0	0
number of deaths resulting from adverse events			
Injury, poisoning and procedural complications			
Arthropod Bite			
subjects affected / exposed	1 / 228 (0.44%)	0 / 231 (0.00%)	0 / 166 (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
Vascular disorders			

Kawasaki's Disease			
subjects affected / exposed	1 / 228 (0.44%)	0 / 231 (0.00%)	0 / 166 (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
Nervous system disorders			
Febrile Convulsion			
subjects affected / exposed	1 / 228 (0.44%)	1 / 231 (0.43%)	0 / 166 (0.00%)
occurrences causally related to treatment / all	1 / 1	1 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
General disorders and administration site conditions			
Pyrexia			
subjects affected / exposed	1 / 228 (0.44%)	0 / 231 (0.00%)	0 / 166 (0.00%)
occurrences causally related to treatment / all	1 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Immune system disorders			
Food Allergy			
subjects affected / exposed	0 / 228 (0.00%)	1 / 231 (0.43%)	0 / 166 (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			
Diarrhoea			
subjects affected / exposed	1 / 228 (0.44%)	1 / 231 (0.43%)	0 / 166 (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
Respiratory, thoracic and mediastinal disorders			
Asthma			
subjects affected / exposed	0 / 228 (0.00%)	1 / 231 (0.43%)	0 / 166 (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
Skin and subcutaneous tissue disorders			
Urticaria			
subjects affected / exposed	0 / 228 (0.00%)	0 / 231 (0.00%)	1 / 166 (0.60%)
occurrences causally related to treatment / all	0 / 0	0 / 0	1 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			

Bronchiolitis			
subjects affected / exposed	1 / 228 (0.44%)	0 / 231 (0.00%)	0 / 166 (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
Bronchitis			
subjects affected / exposed	1 / 228 (0.44%)	0 / 231 (0.00%)	0 / 166 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Covid-19			
subjects affected / exposed	0 / 228 (0.00%)	0 / 231 (0.00%)	3 / 166 (1.81%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 3
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Dengue Fever			
subjects affected / exposed	0 / 228 (0.00%)	1 / 231 (0.43%)	0 / 166 (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
Disseminated Bacillus Calmette-Guerin Infection			
subjects affected / exposed	0 / 228 (0.00%)	1 / 231 (0.43%)	0 / 166 (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
Exanthema Subitum			
subjects affected / exposed	0 / 228 (0.00%)	2 / 231 (0.87%)	0 / 166 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 2	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastroenteritis			
subjects affected / exposed	0 / 228 (0.00%)	1 / 231 (0.43%)	1 / 166 (0.60%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastroenteritis Viral			
subjects affected / exposed	0 / 228 (0.00%)	1 / 231 (0.43%)	0 / 166 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nasopharyngitis			

subjects affected / exposed	1 / 228 (0.44%)	1 / 231 (0.43%)	0 / 166 (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
Pneumonia			
subjects affected / exposed	1 / 228 (0.44%)	1 / 231 (0.43%)	0 / 166 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 1	0 / 0	0 / 0
Pneumonia Respiratory Syncytial Viral			
subjects affected / exposed	5 / 228 (2.19%)	2 / 231 (0.87%)	0 / 166 (0.00%)
occurrences causally related to treatment / all	0 / 5	0 / 2	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pneumonia Viral			
subjects affected / exposed	1 / 228 (0.44%)	0 / 231 (0.00%)	0 / 166 (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
Pyelonephritis Acute			
subjects affected / exposed	1 / 228 (0.44%)	1 / 231 (0.43%)	0 / 166 (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
Respiratory Syncytial Virus Bronchiolitis			
subjects affected / exposed	1 / 228 (0.44%)	0 / 231 (0.00%)	0 / 166 (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
Respiratory Tract Infection Viral			
subjects affected / exposed	0 / 228 (0.00%)	1 / 231 (0.43%)	0 / 166 (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
Urethritis			
subjects affected / exposed	1 / 228 (0.44%)	0 / 231 (0.00%)	0 / 166 (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
Urinary Tract Infection			

subjects affected / exposed	1 / 228 (0.44%)	0 / 231 (0.00%)	0 / 166 (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
Viral Rash			
subjects affected / exposed	1 / 228 (0.44%)	1 / 231 (0.43%)	0 / 166 (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
Viral Upper Respiratory Tract Infection			
subjects affected / exposed	2 / 228 (0.88%)	0 / 231 (0.00%)	0 / 166 (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

Serious adverse events	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN 6		
Total subjects affected by serious adverse events			
subjects affected / exposed	2 / 167 (1.20%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events			
Injury, poisoning and procedural complications			
Arthropod Bite			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Vascular disorders			
Kawasaki's Disease			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Nervous system disorders			
Febrile Convulsion			
subjects affected / exposed	1 / 167 (0.60%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	0 / 0		
General disorders and administration site conditions			

Pyrexia			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Immune system disorders			
Food Allergy			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Respiratory, thoracic and mediastinal disorders			
Asthma			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Skin and subcutaneous tissue disorders			
Urticaria			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Bronchiolitis			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Bronchitis			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Covid-19			

subjects affected / exposed	1 / 167 (0.60%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Dengue Fever			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Disseminated Bacillus Calmette-Guerin Infection			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Exanthema Subitum			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Gastroenteritis			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Gastroenteritis Viral			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Nasopharyngitis			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Pneumonia			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Pneumonia Respiratory Syncytial Viral			

subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Pneumonia Viral			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Pyelonephritis Acute			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Respiratory Syncytial Virus Bronchiolitis			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Respiratory Tract Infection Viral			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Urethritis			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Urinary Tract Infection			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Viral Rash			
subjects affected / exposed	0 / 167 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Viral Upper Respiratory Tract Infection			

subjects affected / exposed	0 / 167 (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	Primary Phase: Group A: SHAN6	Primary Phase: Group B: SHAN 5 + bOPV + IPV	Booster Phase: Group A: SHAN6/SHAN6
Total subjects affected by non-serious adverse events			
subjects affected / exposed	226 / 228 (99.12%)	227 / 231 (98.27%)	149 / 166 (89.76%)
Nervous system disorders			
Somnolence			
subjects affected / exposed	183 / 228 (80.26%)	189 / 231 (81.82%)	85 / 166 (51.20%)
occurrences (all)	397	380	85
General disorders and administration site conditions			
Crying			
subjects affected / exposed	206 / 228 (90.35%)	207 / 231 (89.61%)	110 / 166 (66.27%)
occurrences (all)	506	459	110
Injection Site Erythema	Additional description: Erythema events that occurred after 7 days post-vaccination were considered as unsolicited AE.		
subjects affected / exposed	128 / 228 (56.14%)	103 / 231 (44.59%)	45 / 166 (27.11%)
occurrences (all)	235	217	45
Injection Site Pain	Additional description: Pain events that occurred after 7 days post-vaccination were considered as unsolicited AE.		
subjects affected / exposed	210 / 228 (92.11%)	203 / 231 (87.88%)	126 / 166 (75.90%)
occurrences (all)	522	625	126
Injection Site Swelling	Additional description: Swelling events that occurred after 7 days post-vaccination were considered as unsolicited AE.		
subjects affected / exposed	98 / 228 (42.98%)	91 / 231 (39.39%)	40 / 166 (24.10%)
occurrences (all)	166	193	40
Pyrexia			
subjects affected / exposed	157 / 228 (68.86%)	130 / 231 (56.28%)	55 / 166 (33.13%)
occurrences (all)	290	207	55
Gastrointestinal disorders			
Vomiting			
subjects affected / exposed	75 / 228 (32.89%)	67 / 231 (29.00%)	15 / 166 (9.04%)
occurrences (all)	114	91	15
Psychiatric disorders			

Irritability			
subjects affected / exposed	196 / 228 (85.96%)	193 / 231 (83.55%)	105 / 166 (63.25%)
occurrences (all)	449	410	105
Infections and infestations			
Nasopharyngitis			
subjects affected / exposed	20 / 228 (8.77%)	18 / 231 (7.79%)	0 / 166 (0.00%)
occurrences (all)	24	23	0
Metabolism and nutrition disorders			
Decreased Appetite			
subjects affected / exposed	141 / 228 (61.84%)	114 / 231 (49.35%)	75 / 166 (45.18%)
occurrences (all)	240	185	75

Non-serious adverse events	Booster Phase: Group B: SHAN 5+bOPV+IPV/SHAN 6		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	151 / 167 (90.42%)		
Nervous system disorders			
Somnolence			
subjects affected / exposed	91 / 167 (54.49%)		
occurrences (all)	91		
General disorders and administration site conditions			
Crying			
subjects affected / exposed	104 / 167 (62.28%)		
occurrences (all)	104		
Injection Site Erythema	Additional description: Erythema events that occurred after 7 days post-vaccination were considered as unsolicited AE.		
subjects affected / exposed	49 / 167 (29.34%)		
occurrences (all)	49		
Injection Site Pain	Additional description: Pain events that occurred after 7 days post-vaccination were considered as unsolicited AE.		
subjects affected / exposed	122 / 167 (73.05%)		
occurrences (all)	122		
Injection Site Swelling	Additional description: Swelling events that occurred after 7 days post-vaccination were considered as unsolicited AE.		
subjects affected / exposed	40 / 167 (23.95%)		
occurrences (all)	40		
Pyrexia			
subjects affected / exposed	53 / 167 (31.74%)		
occurrences (all)	53		

Gastrointestinal disorders Vomiting subjects affected / exposed occurrences (all)	 16 / 167 (9.58%) 16		
Psychiatric disorders Irritability subjects affected / exposed occurrences (all)	 103 / 167 (61.68%) 103		
Infections and infestations Nasopharyngitis subjects affected / exposed occurrences (all)	 0 / 167 (0.00%) 0		
Metabolism and nutrition disorders Decreased Appetite subjects affected / exposed occurrences (all)	 72 / 167 (43.11%) 72		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
15 April 2020	Following changes were made: Updated product number; Updated manufacturer, Global Safety Officer, and Clinical Trial Manager information; updated version number and date; minor editorial changes; updated history of protocol version; updated synopsis text that all subjects included in each group will be randomised in 1:1 ratio to be tested at Day (D) 0 and D148 (+14 days) to assess their immune responses against either PCV or ORV antigens; addition of a benefit vaccine to the study in order to complete the PCV vaccination schedule as requested by the Ethics Committee; clarified that AESIs should only be reported as SAEs if they are assessed as serious based on the ICH seriousness criteria; added text in secondary endpoints, immunogenicity endpoints: geometric mean concentration ratio (GMCR) (post booster/pre booster) of individual Ab concentration for all Abs, Ab concentration for each antigen; Updated that SHAN6 would be provided in the study either as a multi dose formulation or as a single dose formulation; clarified the injection route of IMOVAX; clarified the injection route of Prevnar 13; updated exclusion criteria and statistical methods; update the document with the conclusions of SHAN600002 study; updated background of the Investigational product; updated study design and visit procedures; updated study calendar; updated that SHAN6 will be provided in the study either as a multi dose formulation or as a single dose formulation; updated correction of the injection route for IPV vaccine; clarified subject number allocation; clarified LLOQ and ULOQ values for anti-Poliovirus antibody assay; clarified intensity scales used in the CRB and/or the diary card; updated standard case definitions from Brighton Collaboration are also used for encephalopathy and ELS; correction of the time window; updated determination of sample size and power calculation and reference list.
18 February 2021	Following changes were made: suppression of one product number (518); only multidose to be used and the address of the single dose manufacturer was removed; updated first page, history of protocol versions; version number and approval date update; planned study period and study calendar updated to reflect the new study period following change in subjects' age for booster vaccination; updated study design, duration of participation in the study, and table of study to reflect that booster dose would be administered between the age of 15-18 months old and that subjects coming back for booster vaccination before end of September 2021 would receive SHAN6 as a booster vaccine and subjects coming back after end of September 2021 would receive a licensed vaccine as booster dose; updated Form, composition and batch number of investigational/study product; updated text for IMOVAX Polio and Prevnar 13; updated text for SH600003 study with the main conclusions from the study; typos corrected throughout the document.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported