



## Clinical trial results:

### Evaluation of Antibody Persistence at 3.5 and 4.5 Years of Age in Healthy Children After Primary Series and Booster Vaccination with Investigational (DTaP-IPV-HB-Hib) or Infanrix™ hexa vaccines in Latin America

#### Summary

EudraCT number	2011-004451-39
Trial protocol	Outside EU/EEA
Global end of trial date	15 April 2015

#### Results information

Result version number	v1 (current)
This version publication date	21 May 2016
First version publication date	21 May 2016

#### Trial information

##### Trial identification

Sponsor protocol code	A3L28
-----------------------	-------

##### Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01983540
WHO universal trial number (UTN)	U1111-1122-2457

Notes:

#### Sponsors

Sponsor organisation name	Sanofi Pasteur Inc.
Sponsor organisation address	1 Discovery Drive, Swiftwater, United States, 18370
Public contact	Central Clinical Team Leader, Sanofi Pasteur Inc., 33 4 37 37 58 43 , Emmanuel.feroldi@sanofipasteur.com
Scientific contact	Central Clinical Team Leader, Sanofi Pasteur Inc., 33 4 37 37 58 43 , Emmanuel.feroldi@sanofipasteur.com

Notes:

#### Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	Yes
EMA paediatric investigation plan number(s)	EMA-001201-PIP01-11
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	12 November 2015
Is this the analysis of the primary completion data?	No
Global end of trial reached?	Yes
Global end of trial date	15 April 2015
Was the trial ended prematurely?	No

Notes:

## General information about the trial

Main objective of the trial:

To describe the long-term antibody persistence at 3.5 and 4.5 years of age following a 3-dose primary series vaccination of either DTaP-IPV-HB-Hib+Prevenar™ (PCV7)+Rotarix™ or Infanrix™ hexa+Prevenar™ (PCV7)+Rotarix™ vaccination at 2, 4, 6 months of age and a booster vaccination of DTaP-IPV-HB-Hib+Prevenar™ (PCV7) or Infanrix™ hexa+Prevenar™ (PCV7) at 12 to 24 months of age. Only 2 doses of Rotarix™ were administered in the primary series at 2 and 4 months of age.

Protection of trial subjects:

Only subjects that met all the study inclusion and none of the exclusion criteria were randomized and vaccinated in the study. 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 was also available on site in case of any immediate allergic reactions.

Background therapy:

Subjects included in the A3L28 study had previously completed a 3-dose primary series (DTaP-IPV-HB-Hib) or Infanrix hexa, concomitantly administered with Prevenar (PCV7) (3 doses) and Rotarix (2 doses) in study A3L24, and the booster vaccination (DTaP-IPV-HB-Hib) or Infanrix hexa, concomitantly administered with PCV7 in study A3L27. All subjects also received Hepatitis B vaccination at birth. No investigational vaccine administration was planned in the current study.

Evidence for comparator:

Not applicable

Actual start date of recruitment	18 October 2013
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	Colombia: 558
Worldwide total number of subjects	558
EEA total number of subjects	0

Notes:

### Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0

Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	558
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:

Study subjects were enrolled from 18 October 2013 to 21 May 2014 for follow-up 1 (3.5 years) and from 19 November 2014 to 15 April 2015 for follow-up 2 (4.5 years).

### Pre-assignment

Screening details:

A total of 558 subjects who met all inclusion and none of the exclusion criteria were enrolled in this follow-up study.

### Period 1

Period 1 title	Overall trial (overall period)
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

Blinding implementation details:

Not applicable

### Arms

Are arms mutually exclusive?	Yes
------------------------------	-----

<b>Arm title</b>	Group 1: DTaP-IPV-HB-Hib (Primary and Booster)
------------------	--

Arm description:

Subjects previously primed with DTaP-IPV-HB-Hib vaccine concomitantly with PCV7 and Rotarix™, received DTaP-IPV-HB-Hib vaccine concomitantly with Prevenar™ (PCV7) as booster.

Arm type	Experimental
Investigational medicinal product name	DTaP-IPV-Hep B PRP~T combined vaccine
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL, intramuscular injection into the anterolateral area of the right thigh, 1 injection each at 2, 4, and 6 months of age and then as a booster.

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

Dosage and administration details:

0.5 mL, intramuscular injection into the anterolateral area of the left thigh, 1 injection each at 2, 4, and 6 months of age and as a booster.

Investigational medicinal product name	Rotarix
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder and solvent for oral suspension
Routes of administration	Oral use

Dosage and administration details:

1mL, oral, 1 dose each at 2 and 4 months of age.

<b>Arm title</b>	Group 2: DTaP-IPV-HB-Hib (Primary) Infanrix hexa (Booster)
------------------	--

Arm description:

Subjects previously primed with DTaP-IPV-HB-Hib vaccine concomitantly with PCV7 and Rotarix™,

received Infanrix™ hexa vaccine concomitantly with PCV7 as booster.

Arm type	Active comparator
Investigational medicinal product name	Infanrix hexa
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL, intramuscular injection into the anterolateral area of the right thigh, booster dose.

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

Dosage and administration details:

0.5 mL, intramuscular injection into the anterolateral area of the left thigh, 1 injection each at 2, 4, and 6 months of age and as a booster.

Investigational medicinal product name	Rotarix
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder and solvent for oral suspension
Routes of administration	Oral use

Dosage and administration details:

1mL, oral, 1 dose each at 2 and 4 months of age.

Investigational medicinal product name	DTaP-IPV-Hep B PRP~T combined vaccine
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL, intramuscular injection into the anterolateral area of the right thigh, 1 injection each at 2, 4, and 6 months of age.

<b>Arm title</b>	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB-Hib (Booster)
------------------	---

Arm description:

Subject previously primed with Infanrix™ hexa vaccine concomitantly with PCV7 and Rotarix™, received DTaP-IPV-HB-Hib vaccine concomitantly with PCV7 as booster.

Arm type	Active comparator
Investigational medicinal product name	DTaP-IPV-Hep B PRP~T combined vaccine
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL, intramuscular injection into the anterolateral area of the right thigh, booster dose.

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

Dosage and administration details:

0.5 mL, intramuscular injection into the anterolateral area of the left thigh, 1 injection each at 2, 4, and 6 months of age and as a booster.

Investigational medicinal product name	Infanrix hexa
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL, intramuscular injection into the anterolateral area of the right thigh, 1 injection each at 2, 4, and 6 months of age.

Investigational medicinal product name	Rotarix
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder and solvent for oral suspension
Routes of administration	Oral use

Dosage and administration details:

1mL, oral, 1 dose each at 2 and 4 months of age.

Number of subjects in period 1	Group 1: DTaP-IPV-HB-Hib (Primary and Booster)	Group 2: DTaP-IPV-HB-Hib (Primary) Infanrix hexa (Booster)	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB-Hib (Booster)
Started	220	208	130
Completed	213	200	125
Not completed	7	8	5
Consent withdrawn by subject	5	7	4
Lost to follow-up	2	1	1

## Baseline characteristics

### Reporting groups

Reporting group title	Group 1: DTaP-IPV-HB-Hib (Primary and Booster)
Reporting group description: Subjects previously primed with DTaP-IPV-HB-Hib vaccine concomitantly with PCV7 and Rotarix™, received DTaP-IPV-HB-Hib vaccine concomitantly with Prevenar™ (PCV7) as booster.	
Reporting group title	Group 2: DTaP-IPV-HB-Hib (Primary) Infanrix hexa (Booster)
Reporting group description: Subjects previously primed with DTaP-IPV-HB-Hib vaccine concomitantly with PCV7 and Rotarix™, received Infanrix™ hexa vaccine concomitantly with PCV7 as booster.	
Reporting group title	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB-Hib (Booster)
Reporting group description: Subject previously primed with Infanrix™ hexa vaccine concomitantly with PCV7 and Rotarix™, received DTaP-IPV-HB-Hib vaccine concomitantly with PCV7 as booster.	

Reporting group values	Group 1: DTaP-IPV-HB-Hib (Primary and Booster)	Group 2: DTaP-IPV-HB-Hib (Primary) Infanrix hexa (Booster)	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB-Hib (Booster)
Number of subjects	220	208	130
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)	220	208	130
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	0	0	0
From 65-84 years	0	0	0
85 years and over	0	0	0
Age continuous Units: months			
arithmetic mean	41.9	41.8	41.8
standard deviation	± 0.9	± 0.9	± 0.9
Gender categorical Units: Subjects			
Female	110	90	59
Male	110	118	71

Reporting group values	Total		
Number of subjects	558		
Age categorical Units: Subjects			
In utero	0		
Preterm newborn infants (gestational age < 37 wks)	0		
Newborns (0-27 days)	0		

Infants and toddlers (28 days-23 months)	0		
Children (2-11 years)	558		
Adolescents (12-17 years)	0		
Adults (18-64 years)	0		
From 65-84 years	0		
85 years and over	0		
Age continuous Units: months arithmetic mean standard deviation	-		
Gender categorical Units: Subjects			
Female	259		
Male	299		



## End points

### End points reporting groups

Reporting group title	Group 1: DTaP-IPV-HB-Hib (Primary and Booster)
Reporting group description: Subjects previously primed with DTaP-IPV-HB-Hib vaccine concomitantly with PCV7 and Rotarix™, received DTaP-IPV-HB-Hib vaccine concomitantly with Prevenar™ (PCV7) as booster.	
Reporting group title	Group 2: DTaP-IPV-HB-Hib (Primary) Infanrix hexa (Booster)
Reporting group description: Subjects previously primed with DTaP-IPV-HB-Hib vaccine concomitantly with PCV7 and Rotarix™, received Infanrix™ hexa vaccine concomitantly with PCV7 as booster.	
Reporting group title	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB-Hib (Booster)
Reporting group description: Subject previously primed with Infanrix™ hexa vaccine concomitantly with PCV7 and Rotarix™, received DTaP-IPV-HB-Hib vaccine concomitantly with PCV7 as booster.	

### Primary: Vaccine Antibodies' Titers at Year 1 and Year 2 After A Primary Series with Either DTaP-IPV-HB-Hib With Prevenar™ and Rotarix™ or Infanrix™ hexa With Prevenar™ and Rotarix™ and a Booster with DTaP-IPV-HB-Hib With Prevenar™ or Infanrix™ hexa With Prevenar™

End point title	Vaccine Antibodies' Titers at Year 1 and Year 2 After A Primary Series with Either DTaP-IPV-HB-Hib With Prevenar™ and Rotarix™ or Infanrix™ hexa With Prevenar™ and Rotarix™ and a Booster with DTaP-IPV-HB-Hib With Prevenar™ or Infanrix™ hexa With Prevenar™ <sup>[1]</sup>
-----------------	--

#### End point description:

Anti-Diphtheria antibodies were measured by a toxin neutralization test. Anti-Tetanus, Anti-Pertussis toxoid (PT), and Anti-Filamentous hemagglutinin (FHA) antibodies were measured by enzyme-linked immunosorbent assay (ELISA). Anti-Poliovirus types 1, 2, and 3 antibodies were measured by neutralization assay. Anti-Hepatitis B antibodies were measured by the commercially available VITROS ECi/ECiQ Immunodiagnostic System using chemiluminescence detection technology. Anti-Haemophilus influenza type b capsular polyribosyl ribitol phosphate conjugated to tetanus toxoid (PRP) antibodies were measured using a Farr-type radioimmunoassay. Vaccine responses were defined as Anti-Diphtheria and Anti-Tetanus  $\geq 0.01$  IU/mL,  $\geq 0.1$  IU/mL, and  $\geq 1.0$  IU/mL, Anti-Hepatitis B  $\geq 10$  mIU/mL and  $\geq 100$  mIU/mL, Anti-PRP  $\geq 0.15$  µg/mL and  $\geq 1.0$  µg/mL, Anti-PT and FHA  $\geq$  lower limit of quantitation (LLOQ),  $\geq 2$ XLLOQ, and  $\geq 4$ XLLOQ, and Anti-Poliovirus types 1, 2, and 3  $\geq 8$  (1/dil).

End point type	Primary
----------------	---------

#### End point timeframe:

Year 1 and Year 2

#### Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: Descriptive analyses were performed based on the study groups and study vaccines administered for this outcome.

End point values	Group 1: DTaP-IPV-HB-Hib (Primary and Booster)	Group 2: DTaP-IPV-HB-Hib (Primary) Infanrix hexa (Booster)	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB-Hib (Booster)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	220	208	130	
Units: Percentage of subjects				
number (not applicable)				
Anti-Diphtheria; Year 1; $\geq 0.01$ IU/mL	100	99.5	100	

Anti-Diphtheria; Year 1; $\geq 0.1$ IU/mL	72.8	67	73.1	
Anti-Diphtheria; Year 1; $\geq 1.0$ IU/mL	12.9	8.3	12.3	
Anti-Diphtheria; Year 2; $\geq 0.01$ IU/mL	100	98	99.2	
Anti-Diphtheria; Year 2; $\geq 0.1$ IU/mL	57.2	48.2	59.2	
Anti-Diphtheria; Year 2; $\geq 1.0$ IU/mL	10.1	7	10.4	
Anti-Tetanus; Year 1; $\geq 0.01$ IU/mL	100	100	100	
Anti-Tetanus; Year 1; $\geq 0.1$ IU/mL	88.5	86.8	88.5	
Anti-Tetanus; Year 1; $\geq 1.0$ IU/mL	22.6	14.1	33.8	
Anti-Tetanus; Year 2; $\geq 0.01$ IU/mL	100	99	100	
Anti-Tetanus; Year 2; $\geq 0.1$ IU/mL	80.8	76.8	81.6	
Anti-Tetanus; Year 2; $\geq 1.0$ IU/mL	17.3	6.1	21.6	
Anti-PT; Year 1; $\geq$ LLOQ	79.2	82	80.5	
Anti-PT; Year 1; $\geq 2$ XLLOQ	64.4	64.5	62.5	
Anti-PT; Year 1; $\geq 4$ XLLOQ	32.4	34.5	29.7	
Anti-PT; Year 2; $\geq$ LLOQ	65.7	62.2	57.3	
Anti-PT; Year 2; $\geq 2$ XLLOQ	43	45.4	43.5	
Anti-PT; Year 2; $\geq 4$ XLLOQ	22.2	25	20.2	
Anti-FHA; Year 1; $\geq$ LLOQ	99.5	100	98.4	
Anti-FHA; Year 1; $\geq 2$ XLLOQ	95	97.5	93	
Anti-FHA; Year 1; $\geq 4$ XLLOQ	84.9	84.8	81.4	
Anti-FHA; Year 2; $\geq$ LLOQ	99.5	100	98.4	
Anti-FHA; Year 2; $\geq 2$ XLLOQ	95.7	96.5	93.6	
Anti-FHA; Year 2; $\geq 4$ XLLOQ	85.6	84.4	79.2	
Anti-Polio 1; Year 1; $\geq 8$ (1/dil)	100	100	100	
Anti-Polio 1; Year 2; $\geq 8$ (1/dil)	99.5	99.5	100	
Anti-Polio 2; Year 1; $\geq 8$ (1/dil)	100	100	100	
Anti-Polio 2; Year 2; $\geq 8$ (1/dil)	100	100	100	
Anti-Polio 3; Year 1; $\geq 8$ (1/dil)	100	98.5	100	
Anti-Polio 3; Year 2; $\geq 8$ (1/dil)	100	99	100	
Anti-Hepatitis B; Year 1; $\geq 10$ mIU/mL	95.4	95.1	96.2	
Anti-Hepatitis B; Year 1; $\geq 100$ mIU/mL	80.4	83.5	82.3	
Anti-Hepatitis B; Year 2; $\geq 10$ mIU/mL	92.3	93	94.4	
Anti-Hepatitis B; Year 2; $\geq 100$ mIU/mL	74	71.9	75	
Anti-PRP; Year 1; $\geq 0.15$ $\mu$ g/mL	100	100	99.2	
Anti-PRP; Year 1; $\geq 1.0$ $\mu$ g/mL	86.8	89.8	90.8	
Anti-PRP; Year 2; $\geq 0.15$ $\mu$ g/mL	100	100	100	
Anti-PRP; Year 2; $\geq 1.0$ $\mu$ g/mL	85.6	84.4	90.4	

## Statistical analyses

No statistical analyses for this end point

## Primary: Geometric Mean Concentrations/Titers of Antibodies at Year 1 and Year 2 After A Primary Series with Either DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and a Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar

End point title	Geometric Mean Concentrations/Titers of Antibodies at Year 1 and Year 2 After A Primary Series with Either DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and a Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar <sup>[2]</sup>
-----------------	--

End point description:

Anti-Diphtheria antibodies were measured by a toxin neutralization test. Anti-Tetanus, Anti-Pertussis toxoid (PT), and Anti-Filamentous hemagglutinin (FHA) antibodies were measured by enzyme-linked immunosorbent assay (ELISA). Anti-Poliovirus types 1, 2, and 3 antibodies were measured by neutralization assay. Anti-Hepatitis B antibodies were measured by the commercially available VITROS ECi/ECiQ Immunodiagnostic System using chemiluminescence detection technology. Anti-Haemophilus influenza type b capsular polyribosyl ribitol phosphate conjugated to tetanus toxoid (PRP) antibodies were measured using a Farr-type radioimmunoassay.

End point type	Primary
----------------	---------

End point timeframe:

Year 1 and Year 2

Notes:

[2] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: Descriptive analyses were performed based on the study groups and study vaccines administered for this outcome.

End point values	Group 1: DTaP-IPV-HB- Hib (Primary and Booster)	Group 2: DTaP-IPV-HB- Hib (Primary) Infanrix hexa (Booster)	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB- Hib (Booster)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	220	208	130	
Units: Concentrations/Titers (1/dil)				
geometric mean (confidence interval 95%)				
Anti-Diphtheria; Year 1	0.256 (0.216 to 0.303)	0.187 (0.159 to 0.22)	0.231 (0.188 to 0.284)	
Anti-Diphtheria; Year 2	0.164 (0.136 to 0.197)	0.119 (0.098 to 0.145)	0.143 (0.112 to 0.183)	
Anti-Tetanus; Year 1	0.433 (0.372 to 0.503)	0.323 (0.281 to 0.372)	0.579 (0.465 to 0.722)	
Anti-Tetanus; Year 2	0.297 (0.252 to 0.35)	0.221 (0.189 to 0.26)	0.381 (0.302 to 0.481)	
Anti-PT; Year 1	4.75 (4.07 to 5.56)	5.09 (4.32 to 5.98)	4.62 (3.78 to 5.65)	
Anti-PT; Year 2	3.16 (2.71 to 3.69)	3.13 (2.67 to 3.68)	3.06 (2.45 to 3.82)	
Anti-FHA; Year 1	26.1 (21.8 to 31.1)	26.3 (22.2 to 31.1)	19.9 (15.9 to 24.9)	
Anti-FHA; Year 2	33.8 (28.5 to 40.1)	35.1 (29.2 to 42.1)	27.3 (21.3 to 34.9)	
Anti-Polio 1; Year 1	285 (245 to 332)	294 (250 to 345)	508 (410 to 630)	
Anti-Polio 1; Year 2	211 (180 to 249)	207 (173 to 247)	417 (331 to 525)	
Anti-Polio 2; Year 1	694 (587 to 822)	553 (470 to 652)	997 (788 to 1261)	
Anti-Polio 2; Year 2	543 (455 to 647)	403 (332 to 490)	700 (555 to 883)	
Anti-Polio 3; Year 1	691 (570 to 838)	508 (414 to 622)	1213 (962 to 1530)	
Anti-Polio 3; Year 2	408 (338 to 493)	307 (254 to 372)	696 (554 to 875)	
Anti-Hepatitis B; Year 1	500 (379 to 658)	475 (364 to 619)	671 (463 to 971)	
Anti-Hepatitis B; Year 2	299 (223 to 401)	277 (210 to 365)	399 (271 to 589)	
Anti-PRP; Year 1	4.55 (3.84 to 5.4)	5.22 (4.37 to 6.23)	5.37 (4.32 to 6.69)	

Anti-PRP; Year 2	4.02 (3.39 to 4.78)	4.34 (3.59 to 5.26)	4.87 (3.83 to 6.19)	
------------------	---------------------	---------------------	---------------------	--

## Statistical analyses

No statistical analyses for this end point

### Primary: Diphtheria and Tetanus Antibodies' Titers Post-Primary Series, Booster, Year 1, and Year 2 After Either DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and a Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar

End point title	Diphtheria and Tetanus Antibodies' Titers Post-Primary Series, Booster, Year 1, and Year 2 After Either DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and a Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar <sup>[3]</sup>
-----------------	---

End point description:

Anti-Diphtheria antibodies were measured by a toxin neutralization test. Anti-Tetanus antibodies were measured by enzyme-linked immunosorbent assay (ELISA). Vaccine responses were defined as Anti-Diphtheria and Anti-Tetanus  $\geq 0.01$  IU/mL,  $\geq 0.1$  IU/mL, and  $\geq 1.0$  IU/mL.

End point type	Primary
----------------	---------

End point timeframe:

Post-dose 3, Pre- and post-booster, Year 1, and Year 2

Notes:

[3] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: Descriptive analyses were performed based on the study groups and study vaccines administered for this outcome.

End point values	Group 1: DTaP-IPV-HB-Hib (Primary and Booster)	Group 2: DTaP-IPV-HB-Hib (Primary) Infanrix hexa (Booster)	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB-Hib (Booster)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	220	208	130	
Units: Percentage of subjects				
number (not applicable)				
Anti-Diphtheria; Post-dose 3; $\geq 0.01$ IU/mL	100	100	100	
Anti-Diphtheria; Post-dose 3; $\geq 0.1$ IU/mL	79.3	72.2	72.3	
Anti-Diphtheria; Post-dose 3; $\geq 1.0$ IU/mL	12.9	7.3	5.4	
Anti-Diphtheria; Pre-booster; $\geq 0.01$ IU/mL	97.7	95.6	96.9	
Anti-Diphtheria; Pre-booster; $\geq 0.1$ IU/mL	42.7	40.3	23.8	
Anti-Diphtheria; Post-booster; $\geq 0.01$ IU/mL	100	100	100	
Anti-Diphtheria; Post-booster; $\geq 0.1$ IU/mL	100	100	100	
Anti-Diphtheria; Post-booster; $\geq 1.0$ IU/mL	96.8	95.6	98.4	
Anti-Diphtheria; Year 1; $\geq 0.01$ IU/mL	100	99.5	100	

Anti-Diphtheria; Year 1; $\geq 0.1$ IU/mL	72.8	67	73.1	
Anti-Diphtheria; Year 1; $\geq 1.0$ IU/mL	12.9	8.3	12.3	
Anti-Diphtheria; Year 2; $\geq 0.01$ IU/mL	100	98	99.2	
Anti-Diphtheria; Year 2; $\geq 0.1$ IU/mL	57.2	48.2	59.2	
Anti-Diphtheria; Year 2; $\geq 1.0$ IU/mL	10.1	7	10.4	
Anti-Tetanus; Post-dose 3; $\geq 0.01$ IU/mL	100	100	100	
Anti-Tetanus; Post-dose 3; $\geq 0.1$ IU/mL	100	99.5	100	
Anti-Tetanus; Post-dose 3; $\geq 1.0$ IU/mL	72.8	73.7	83.8	
Anti-Tetanus; Pre-booster; $\geq 0.01$ IU/mL	100	100	100	
Anti-Tetanus; Pre-booster; $\geq 0.1$ IU/mL	72.9	73.3	76.2	
Anti-Tetanus; Post-booster; $\geq 0.01$ IU/mL	100	100	100	
Anti-Tetanus; Post-booster; $\geq 0.1$ IU/mL	99.5	100	100	
Anti-Tetanus; Post-booster; $\geq 1.0$ IU/mL	98.2	96.6	96.9	
Anti-Tetanus; Year 1; $\geq 0.01$ IU/mL	100	100	100	
Anti-Tetanus; Year 1; $\geq 0.1$ IU/mL	88.5	86.8	88.5	
Anti-Tetanus; Year 1; $\geq 1.0$ IU/mL	22.6	14.1	33.8	
Anti-Tetanus; Year 2; $\geq 0.01$ IU/mL	100	99	100	
Anti-Tetanus; Year 2; $\geq 0.1$ IU/mL	80.8	76.8	81.6	
Anti-Tetanus; Year 2; $\geq 1.0$ IU/mL	17.3	6.1	21.6	

## Statistical analyses

No statistical analyses for this end point

### Primary: Geometric Mean Concentrations of Diphtheria and Tetanus Antibodies' Titers Post-Primary, Booster, and Year 1 and 2 After DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar

End point title	Geometric Mean Concentrations of Diphtheria and Tetanus Antibodies' Titers Post-Primary, Booster, and Year 1 and 2 After DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar <sup>[4]</sup>
-----------------	--

End point description:

Anti-Diphtheria antibodies were measured by a toxin neutralization test. Anti-Tetanus antibodies were measured by enzyme-linked immunosorbent assay (ELISA).

End point type	Primary
----------------	---------

End point timeframe:

Post-dose 3, Pre- and post-booster, Year 1, and Year 2

Notes:

[4] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: Descriptive analyses were performed based on the study groups and study vaccines administered for this outcome.

End point values	Group 1: DTaP-IPV-HB- Hib (Primary and Booster)	Group 2: DTaP-IPV-HB- Hib (Primary) Infanrix hexa (Booster)	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB- Hib (Booster)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	220	208	130	
Units: Concentrations (1/dil)				
geometric mean (confidence interval 95%)				
Anti-Diphtheria; Post-dose 3	0.272 (0.234 to 0.316)	0.226 (0.195 to 0.262)	0.199 (0.171 to 0.232)	
Anti-Diphtheria; Pre-booster	0.083 (0.071 to 0.096)	0.076 (0.065 to 0.089)	0.059 (0.049 to 0.071)	
Anti-Diphtheria; Post-booster	6.14 (5.4 to 6.98)	4.4 (3.86 to 5.02)	6.18 (5.28 to 7.23)	
Anti-Diphtheria; Year 1	0.256 (0.216 to 0.303)	0.187 (0.159 to 0.22)	0.231 (0.188 to 0.284)	
Anti-Diphtheria; Year 2	0.164 (0.136 to 0.197)	0.119 (0.098 to 0.145)	0.143 (0.112 to 0.183)	
Anti-Tetanus; Post-dose 3	1.55 (1.4 to 1.71)	1.6 (1.44 to 1.78)	1.79 (1.63 to 1.98)	
Anti-Tetanus; Pre-booster	0.204 (0.177 to 0.234)	0.247 (0.208 to 0.293)	0.206 (0.176 to 0.24)	
Anti-Tetanus; Post-booster	5.94 (5.26 to 6.7)	5.17 (4.6 to 5.81)	8.28 (6.94 to 9.89)	
Anti-Tetanus; Year 1	0.433 (0.372 to 0.503)	0.323 (0.281 to 0.372)	0.579 (0.465 to 0.722)	
Anti-Tetanus; Year 2	0.297 (0.252 to 0.35)	0.221 (0.189 to 0.26)	0.381 (0.302 to 0.481)	

## Statistical analyses

No statistical analyses for this end point

### Primary: Pertussis Toxoid and Filamentous Hemagglutinin Antibodies' Titers Post-Primary, Booster, and Year 1 and 2 After DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and a Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar

End point title	Pertussis Toxoid and Filamentous Hemagglutinin Antibodies' Titers Post-Primary, Booster, and Year 1 and 2 After DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and a Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar <sup>[5]</sup>
-----------------	---

#### End point description:

Anti-Pertussis toxoid (PT) and Anti-Filamentous hemagglutinin (FHA) antibodies were measured by enzyme-linked immunosorbent assay (ELISA). Vaccine responses for Anti-PT and Anti-FHA were defined as  $\geq$  lower limit of quantitation (LLOQ),  $\geq 2 \times \text{LLOQ}$ , and  $\geq 4 \times \text{LLOQ}$ .

End point type	Primary
----------------	---------

#### End point timeframe:

Post-dose 3, Pre- and post-booster, Year 1, and Year 2

#### Notes:

[5] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: Descriptive analyses were performed based on the study groups and study vaccines administered for this outcome.

End point values	Group 1: DTaP-IPV-HB- Hib (Primary and Booster)	Group 2: DTaP-IPV-HB- Hib (Primary) Infanrix hexa (Booster)	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB- Hib (Booster)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	220	208	130	
Units: Percentage of subjects				
number (not applicable)				
Anti-PT; Post-dose 3; ≥ LLOQ	100	100	100	
Anti-PT; Post-dose 3; ≥ 2XLLOQ	99.1	100	100	
Anti-PT; Post-dose 3; ≥ 4XLLOQ	98.6	100	100	
Anti-PT; Pre-booster; ≥ LLOQ	91.5	91.2	89.1	
Anti-PT; Pre-booster; ≥ 2XLLOQ	81.1	81.4	80.6	
Anti-PT; Pre-booster; ≥ 4XLLOQ	50.5	47.5	42.6	
Anti-PT; Post-booster; ≥ LLOQ	100	100	100	
Anti-PT; Post-booster; ≥ 2XLLOQ	100	100	100	
Anti-PT; Post-booster; ≥ 4XLLOQ	100	100	100	
Anti-PT; Year 1; ≥ LLOQ	79.2	82	80.5	
Anti-PT; Year 1; ≥ 2XLLOQ	64.4	64.5	62.5	
Anti-PT; Year 1; ≥ 4XLLOQ	32.4	34.5	29.7	
Anti-PT; Year 2; ≥ LLOQ	65.7	62.2	57.3	
Anti-PT; Year 2; ≥ 2XLLOQ	43	45.4	43.5	
Anti-PT; Year 2; ≥ 4XLLOQ	22.2	25	20.2	
Anti-FHA; Post-dose 3; ≥ LLOQ	100	100	100	
Anti-FHA; Post-dose 3; ≥ 2XLLOQ	100	100	100	
Anti-FHA; Post-dose 3; ≥ 4XLLOQ	100	100	100	
Anti-FHA; Pre-booster; ≥ LLOQ	100	100	99.2	
Anti-FHA; Pre-booster; ≥ 2XLLOQ	98.6	97.5	89.9	
Anti-FHA; Pre-booster; ≥ 4XLLOQ	81.7	89.7	68.2	
Anti-FHA; Post-booster; ≥ LLOQ	100	100	100	
Anti-FHA; Post-booster; ≥ 2XLLOQ	100	100	100	
Anti-FHA; Post-booster; ≥ 4XLLOQ	100	100	100	
Anti-FHA; Year 1; ≥ LLOQ	99.5	100	98.4	
Anti-FHA; Year 1; ≥ 2XLLOQ	95	97.5	93	
Anti-FHA; Year 1; ≥ 4XLLOQ	84.9	84.8	81.4	
Anti-FHA; Year 2; ≥ LLOQ	99.5	100	98.4	
Anti-FHA; Year 2; ≥ 2XLLOQ	95.7	96.5	93.6	
Anti-FHA; Year 2; ≥ 4XLLOQ	85.6	84.4	79.2	

## Statistical analyses

No statistical analyses for this end point

## Primary: Geometric Mean Concentration of Pertussis Toxoid and Filamentous Hemagglutinin Post-Primary, Booster, Year 1 and 2 After DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar

End point title	Geometric Mean Concentration of Pertussis Toxoid and Filamentous Hemagglutinin Post-Primary, Booster, Year 1 and 2 After DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and Booster with DTaP-IPV-HB-
-----------------	---

End point description:

Anti-Pertussis toxoid (PT) and Anti-Filamentous hemagglutinin (FHA) antibodies were measured by enzyme-linked immunosorbent assay (ELISA).

End point type Primary

End point timeframe:

Post-dose 3, Pre- and post-booster, Year 1, and Year 2

Notes:

[6] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: Descriptive analyses were performed based on the study groups and study vaccines administered for this outcome.

End point values	Group 1: DTaP-IPV-HB- Hib (Primary and Booster)	Group 2: DTaP-IPV-HB- Hib (Primary) Infanrix hexa (Booster)	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB- Hib (Booster)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	220	208	130	
Units: Concentrations (1/dil)				
geometric mean (confidence interval 95%)				
Anti-PT; Post-dose 3	96.4 (88 to 106)	97.5 (90 to 106)	94.4 (84.9 to 105)	
Anti-PT; Pre-booster	7.35 (6.37 to 8.49)	8.54 (7.2 to 10.1)	7.2 (5.82 to 8.89)	
Anti-PT; Post-booster	158 (142 to 174)	180 (161 to 200)	139 (121 to 159)	
Anti-PT; Year 1	4.75 (4.07 to 5.56)	5.09 (4.32 to 5.98)	4.62 (3.78 to 5.65)	
Anti-PT; Year 2	3.16 (2.71 to 3.69)	3.13 (2.67 to 3.68)	3.06 (2.45 to 3.82)	
Anti-FHA; Post-dose 3	166 (153 to 180)	181 (167 to 197)	104 (94.6 to 115)	
Anti-FHA; Pre-booster	20.6 (17.8 to 23.9)	25.3 (21.6 to 29.7)	13.9 (11 to 17.4)	
Anti-FHA; Post-booster	281 (253 to 312)	418 (371 to 472)	234 (197 to 277)	
Anti-FHA; Year 1	26.1 (21.8 to 31.1)	26.3 (22.2 to 31.1)	19.9 (15.9 to 24.9)	
Anti-FHA; Year 2	33.8 (28.5 to 40.1)	35.1 (29.2 to 42.1)	27.3 (21.3 to 34.9)	

## Statistical analyses

No statistical analyses for this end point

## Primary: Poliovirus 1, 2, and 3 Antibodies' Titers Post-Primary Series, Booster, Year 1 and Year 2 After Either DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and a Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar

End point title	Poliovirus 1, 2, and 3 Antibodies' Titers Post-Primary Series, Booster, Year 1 and Year 2 After Either DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and a Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar <sup>[7]</sup>
-----------------	--



End point description:

Anti-Poliovirus types 1, 2, and 3 antibodies were measured by neutralization assay. Vaccine responses for Anti-Poliovirus types 1, 2, and 3 were defined as titers  $\geq 8$  (1/dil).

End point type	Primary
----------------	---------

End point timeframe:

Post-dose 3, Pre- and post-booster, Year 1, and Year 2

Notes:

[7] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: Descriptive analyses were performed based on the study groups and study vaccines administered for this outcome.

End point values	Group 1: DTaP-IPV-HB- Hib (Primary and Booster)	Group 2: DTaP-IPV-HB- Hib (Primary) Infanrix hexa (Booster)	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB- Hib (Booster)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	220	208	130	
Units: Percentage of subjects				
number (not applicable)				
Anti-Polio 1; Post-dose 3	100	100	100	
Anti-Polio 1; Pre-booster	99.1	98.5	98.5	
Anti-Polio 1; Post-booster	100	100	100	
Anti-Polio 1; Year 1	100	100	100	
Anti-Polio 1; Year 2	99.5	99.5	100	
Anti-Polio 2; Post-dose 3	100	100	100	
Anti-Polio 2; Pre-booster	99.5	100	100	
Anti-Polio 2; Post-booster	100	100	100	
Anti-Polio 2; Year 1	100	100	100	
Anti-Polio 2; Year 2	100	100	100	
Anti-Polio 3; Post-dose 3	100	100	100	
Anti-Polio 3; Pre-booster	95.9	93.7	100	
Anti-Polio 3; Post-booster	100	100	100	
Anti-Polio 3; Year 1	100	98.5	100	
Anti-Polio 3; Year 2	100	99	100	

## Statistical analyses

No statistical analyses for this end point

**Primary: Geometric Mean Titers of Poliovirus 1, 2, and 3 Antibodies' Post-Primary Series, Booster, and Year 1 and 2 After Either DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar**

End point title	Geometric Mean Titers of Poliovirus 1, 2, and 3 Antibodies' Post-Primary Series, Booster, and Year 1 and 2 After Either DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar <sup>[8]</sup>
-----------------	---

End point description:

Anti-Poliovirus types 1, 2, and 3 antibodies were measured by neutralization assay.

End point type	Primary
----------------	---------

End point timeframe:

Post-dose 3, Pre- and post-booster, Year 1, and Year 2

Notes:

[8] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: Descriptive analyses were performed based on the study groups and study vaccines administered for this outcome.

<b>End point values</b>	Group 1: DTaP-IPV-HB- Hib (Primary and Booster)	Group 2: DTaP-IPV-HB- Hib (Primary) Infanrix hexa (Booster)	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB- Hib (Booster)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	220	208	130	
Units: Titers (1/dil)				
geometric mean (confidence interval 95%)				
Anti-Polio 1; Post-dose 3	662 (579 to 757)	682 (587 to 792)	1340 (1110 to 1619)	
Anti-Polio 1; Pre-booster	129 (110 to 151)	124 (105 to 147)	217 (175 to 269)	
Anti-Polio 1; Post-booster	2276 (2016 to 2569)	2562 (2233 to 2940)	3156 (2629 to 3790)	
Anti-Polio 1; Year 1	285 (245 to 332)	294 (250 to 345)	508 (410 to 630)	
Anti-Polio 1; Year 2	211 (180 to 249)	207 (173 to 247)	417 (331 to 525)	
Anti-Polio 2; Post-dose 3	1210 (1060 to 1382)	1289 (1111 to 1496)	2043 (1699 to 2456)	
Anti-Polio 2; Pre-booster	233 (192 to 283)	276 (225 to 339)	342 (268 to 438)	
Anti-Polio 2; Post-booster	4515 (3993 to 5106)	4707 (4067 to 5447)	6519 (5472 to 7767)	
Anti-Polio 2; Year 1	694 (587 to 822)	553 (470 to 652)	997 (788 to 1261)	
Anti-Polio 2; Year 2	543 (455 to 647)	403 (332 to 490)	700 (555 to 883)	
Anti-Polio 3; Post-dose 3	1280 (1080 to 1517)	1199 (1038 to 1386)	2092 (1704 to 2569)	
Anti-Polio 3; Pre-booster	122 (99.9 to 150)	117 (94.6 to 145)	192 (158 to 234)	
Anti-Polio 3; Post-booster	3830 (3283 to 4469)	3094 (2645 to 3619)	5871 (4936 to 6983)	
Anti-Polio 3; Year 1	691 (570 to 838)	508 (414 to 622)	1213 (962 to 1530)	
Anti-Polio 3; Year 2	408 (338 to 493)	307 (254 to 372)	696 (554 to 875)	

## Statistical analyses

No statistical analyses for this end point

**Primary: Hepatitis B and PRP Antibodies' Titers Post-Primary Series, Booster, and Year 1 and 2 After Vaccinations with Either DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and a Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar**

End point title	Hepatitis B and PRP Antibodies' Titers Post-Primary Series, Booster, and Year 1 and 2 After Vaccinations with Either DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and a Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar <sup>[9]</sup>
-----------------	--

End point description:

Anti-Hepatitis B antibodies were measured by the commercially available VITROS ECi/ECiQ Immunodiagnostic System using chemiluminescence detection technology. Anti-Haemophilus influenza type b capsular polyribosyl ribitol phosphate conjugated to tetanus toxoid (PRP) antibodies were measured using a Farr-type radioimmunoassay. Vaccine responses for Anti-Hepatitis B were defined as  $\geq 10$  mIU/mL and  $\geq 100$  mIU/mL and  $\geq 0.15$  µg/mL and  $\geq 1.0$  µg/mL for Anti-PRP.

End point type	Primary
----------------	---------

End point timeframe:

Post-dose 3, Pre- and post-booster, Year 1, and Year 2

Notes:

[9] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: Descriptive analyses were performed based on the study groups and study vaccines administered for this outcome.

End point values	Group 1: DTaP-IPV-HB-Hib (Primary and Booster)	Group 2: DTaP-IPV-HB-Hib (Primary) Infanrix hexa (Booster)	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB-Hib (Booster)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	220	208	130	
Units: Percentage of subjects				
number (not applicable)				
Anti-Hepatitis B; Post-dose 3; $\geq 10$ mIU/mL	99.5	100	100	
Anti-Hepatitis B; Post-dose 3; $\geq 100$ mIU/mL	98.2	98.5	99.2	
Anti-Hepatitis B; Pre-booster; $\geq 10$ mIU/mL	98.6	97.1	99.2	
Anti-Hepatitis B; Pre-booster; $\geq 100$ mIU/mL	82.6	83	80.8	
Anti-Hepatitis B; Post-booster; $\geq 10$ mIU/mL	100	100	100	
Anti-Hepatitis B; Post-booster; $\geq 100$ mIU/mL	98.2	97.1	99.2	
Anti-Hepatitis B; Year 1; $\geq 10$ mIU/mL	95.4	95.1	96.2	
Anti-Hepatitis B; Year 1; $\geq 100$ mIU/mL	80.4	83.5	82.3	
Anti-Hepatitis B; Year 2; $\geq 10$ mIU/mL	92.3	93	94.4	
Anti-Hepatitis B; Year 2; $\geq 100$ mIU/mL	74	71.9	75	
Anti-PRP; Post-dose 3; $\geq 0.15$ µg/mL	91.7	96.1	95.4	
Anti-PRP; Post-dose 3; $\geq 1.0$ µg/mL	78.3	79	71.5	
Anti-PRP; Pre-booster; $\geq 0.15$ µg/mL	74.4	80.1	73.8	
Anti-PRP; Pre-booster; $\geq 1.0$ µg/mL	30.6	37.4	27.7	
Anti-PRP; Post-booster; $\geq 0.15$ µg/mL	100	100	100	
Anti-PRP; Post-booster; $\geq 1.0$ µg/mL	99.5	99	100	
Anti-PRP; Year 1; $\geq 0.15$ µg/mL	100	100	99.2	
Anti-PRP; Year 1; $\geq 1.0$ µg/mL	86.8	89.8	90.8	
Anti-PRP; Year 2; $\geq 0.15$ µg/mL	100	100	100	
Anti-PRP; Year 2; $\geq 1.0$ µg/mL	85.6	84.4	90.4	

## Statistical analyses

No statistical analyses for this end point

### Primary: Geometric Mean Concentrations of Hepatitis B and PRP Antibodies' Post-Primary, Booster, Year 1 and 2 After Either DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and a Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar

End point title	Geometric Mean Concentrations of Hepatitis B and PRP Antibodies' Post-Primary, Booster, Year 1 and 2 After Either DTaP-IPV-HB-Hib/Prevenar/Rotarix or Infanrix hexa/Prevenar/Rotarix and a Booster with DTaP-IPV-HB-Hib/Prevenar or Infanrix hexa/Prevenar <sup>[10]</sup>
-----------------	--

End point description:

Anti-Hepatitis B antibodies were measured by the commercially available VITROS ECi/ECiQ Immunodiagnostic System using chemiluminescence detection technology. Anti-Haemophilus influenza type b capsular polyribosyl ribitol phosphate conjugated to tetanus toxoid (PRP) antibodies were measured using a Farr-type radioimmunoassay.

End point type	Primary
----------------	---------

End point timeframe:

Post-dose 3, Pre- and post-booster, Year 1, and Year 2

Notes:

[10] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: Descriptive analyses were performed based on the study groups and study vaccines administered for this outcome.

End point values	Group 1: DTaP-IPV-HB-Hib (Primary and Booster)	Group 2: DTaP-IPV-HB-Hib (Primary) Infanrix hexa (Booster)	Group 3: Infanrix™ hexa (Primary) DTaP-IPV-HB-Hib (Booster)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	220	208	130	
Units: Concentrations (1/dil)				
geometric mean (confidence interval 95%)				
Anti-Hepatitis B; Post-dose 3	2663 (2276 to 3117)	2822 (2403 to 3314)	2543 (2150 to 3007)	
Anti-Hepatitis B; Pre-booster	351 (292 to 422)	344 (278 to 425)	275 (219 to 344)	
Anti-Hepatitis B; Post-booster	7698 (6223 to 9522)	8370 (6637 to 10556)	8597 (6472 to 11420)	
Anti-Hepatitis B; Year 1	500 (379 to 658)	475 (364 to 619)	671 (463 to 971)	
Anti-Hepatitis B; Year 2	299 (223 to 401)	277 (210 to 365)	399 (271 to 589)	
Anti-PRP; Post-dose 3	3.41 (2.68 to 4.35)	4.15 (3.3 to 5.22)	2.08 (1.63 to 2.67)	
Anti-PRP; Pre-booster	0.512 (0.407 to 0.645)	0.651 (0.518 to 0.819)	0.408 (0.312 to 0.533)	
Anti-PRP; Post-booster	49.1 (41.3 to 58.3)	44.2 (37.1 to 52.8)	56.7 (44.8 to 71.7)	

Anti-PRP; Year 1	4.55 (3.84 to 5.4)	5.22 (4.37 to 6.23)	5.37 (4.32 to 6.69)	
Anti-PRP; Year 2	4.02 (3.39 to 4.78)	4.34 (3.59 to 5.26)	4.87 (3.83 to 6.19)	

## Statistical analyses

---

No statistical analyses for this end point

## Adverse events

---

### Adverse events information<sup>[1]</sup>

---

Timeframe for reporting adverse events:

No safety data were collected for this study.

Assessment type	Non-systematic
-----------------	----------------

---

### Dictionary used

---

Dictionary name	MedDRA
-----------------	--------

---

Dictionary version	9
--------------------	---

---

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

---

### Notes:

[1] - There are no non-serious adverse events recorded for these results. It is expected that there will be at least one non-serious adverse event reported.

Justification: The aim of this study is to describe the long-term antibody persistence following vaccination in a previous study. There were no safety objectives and no safety data were collected in this study.

## **More information**

### **Substantial protocol amendments (globally)**

Were there any global substantial amendments to the protocol? No

---

### **Interruptions (globally)**

Were there any global interruptions to the trial? No

### **Limitations and caveats**

None reported