Clinical trial results:
A phase IV study to evaluate the primary and booster immune responses of UK preterm infants receiving licensed DTaP/Hib/IPV and meningococcal C conjugate vaccine and incorporating a randomisation study of a 3 dose accelerated versus a 2 dose and a 3 dose extended schedule of pneumococcal conjugate vaccine for primary immunisation.

Summary

EudraCT number	2007-007535-23
Trial protocol	GB
Global end of trial date	22 April 2014

Results information

Result version number	v1 (current)
This version publication date	15 November 2019
First version publication date	15 November 2019
Summary attachment (see zip file)	End of Study Report (PUNS End of Study Report.pdf)

Trial information

Trial identification

Sponsor protocol code	PUNS

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	St Georges University of London
Sponsor organisation address	Cranmer Terrace, London, United Kingdom, SW17 0RE
Public contact	Joint Research and Enterprise Services , St George's University of London, +44 (0)208725 1012, sponsor@sgul.ac.uk
Scientific contact	St George's University of London, Prof Paul Heath , +44 (0)20 8725 5980, pheath@sgul.ac.uk

Notes:

Paediatric regulatory details

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

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	13 August 2015
Is this the analysis of the primary completion data?	Yes
Primary completion date	22 April 2014
Global end of trial reached?	Yes
Global end of trial date	22 April 2014
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

1. To compare the immunological responses of infants born prematurely to Prevenar after 2 doses at 2 and 4 months of age with 3 doses at 2, 3 and 4 months of age ("early protection").

2. To evaluate the immunological responses of infants born prematurely to Prevenar when vaccinated under a 3-dose accelerated schedule (2, 3 and 4 months of age) compared with a 3-dose extended schedule (2, 4 and 6 months of age).

3. To evaluate the immunological responses of infants born prematurely when vaccinated under the new national schedule to:

- Hib
- Meningococcal C
- Diphtheria
- Tetanus

Protection of trial subjects:

Local anaesthetic cream was used where appropriate to numb the skin prior to blood being taken.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	16 May 2011
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	United Kingdom: 210
Worldwide total number of subjects	210
EEA total number of subjects	210

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	210
Newborns (0-27 days)	0

Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	0
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Two hundred (200) subjects will be recruited from NHS sites in the UK in a 12 month active recruitment period.

Pre-assignment

Screening details:

infant (i) was born at <35 weeks gestation; and (ii) is aged between 7 weeks and <12 weeks at entry (as per protocol).

Period 1

Period 1 title	Active (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Not blinded

Blinding implementation details:

computerised block randomisation list will be produced by the Statistician as described Analytical Plan. Each centre will be allocated blocks of sequential numbers in accordance with the block size used for randomisation. On recruitment to the study, each subject will be allocated, in order of inclusion, the next available subject number.

Arms

Are arms mutually exclusive?	Yes
Arm title	Group 1

Arm description:

Prevenar13® administered at 2+4 months

Arm type	Active comparator
Investigational medicinal product name	Prevenar13
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

Prevenar13 vaccine

Arm title	Group 2

Arm description:

Prevenar13® administered at 2+3+4 months

Arm type	Active comparator
Investigational medicinal product name	Prevenar13
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

intramuscular injection with a 16mm

Arm title	Group 3

Arm description:

Prevenar13® administered at 2+4+6 months

Arm type	Active comparator

Investigational medicinal product name	Prevenar13
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

Prevenar13 vaccine

Number of subjects in period 1	Group 1	Group 2	Group 3
Started	69	69	72
End of study	69	69	72
Completed	68	67	71
Not completed	1	2	1
Consent withdrawn by subject	1	2	1

Baseline characteristics

End points

End points reporting groups	
Reporting group title	Group 1
Reporting group description: Prevenar13® administered at 2+4 months	
Reporting group title	Group 2
Reporting group description: Prevenar13® administered at 2+3+4 months	
Reporting group title	Group 3
Reporting group description: Prevenar13® administered at 2+4+6 months	

Primary: To compare the immunological responses of infants born prematurely to PCV13 after two doses at 2 and 4 months of age with three doses at 2, 3 and 4 months of age ("early protection").

End point title	To compare the immunological responses of infants born prematurely to PCV13 after two doses at 2 and 4 months of age with three doses at 2, 3 and 4 months of age ("early protection").
End point description:	
End point type	Primary
End point timeframe: After two doses at 2 and 4 months of age with three doses at 2, 3 and 4 months of age	

End point values	Group 1	Group 2	Group 3	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	68	67	71	
Units: OO				
number (not applicable)	68	67	71	

Statistical analyses

Statistical analysis title	Statisitical analysis
Comparison groups	Group 1 v Group 2 v Group 3
Number of subjects included in analysis	206
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0
Method	Not known

Adverse events

Adverse events information[1]	
Timeframe for reporting adverse events: SAE and will be reported within 24 hours by the Study Nurse/Doctor to the sponsor and CI	
Assessment type	Systematic

Dictionary used	
Dictionary name	SmpC
Dictionary version	0

Frequency threshold for reporting non-serious adverse events: 0 %

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: All adverse events data is reported in the Final Study Report

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
29 August 2008	Amendment 1 29 August 2008 Changes: Addition of site in uk Clarification of Indemnity & Funder in PIL
12 September 2008	Amendment 2 12 September 2008 Amendment 02 incorporated changes to notify the study to a "Clinical Trial of Investigational Medicinal Product". UK CA (MHRA) approval for the study was received on 24th April 2008.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported