# 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<br>Changes:<br>Addition of site in uk<br>Clarification of Indemnity & Funder in PIL |
| 12 September 2008 | Amendment 2 12 September 2008<br>Amendment 02 incorporated changes to notify the study to a "Clinical Trial of Investigational Medicinal Product".<br>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