Clinical trial results:
A Single-blind, Randomized, Phase 1/2 Trial of the Safety, Tolerability, and Immunogenicity of Meningococcal Group B rLP2086 Vaccine in Healthy Infants

Summary

EudraCT number	2008-001457-18
Trial protocol	ES
Global end of trial date	02 March 2011

Results information

Result version number	v1 (current)
This version publication date	29 June 2016
First version publication date	29 July 2015

Trial information

Trial identification

Sponsor protocol code	6108K2-2000

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT00798304
WHO universal trial number (UTN)	-
Other trial identifiers	Alias: B1971008

Notes:

Sponsors

Sponsor organisation name	Pfizer Inc.
Sponsor organisation address	235 E 42nd Street, New York, United States, NY 10017
Public contact	Pfizer ClinicalTrials.gov Call Center, Pfizer Inc., 001 800-718-1021, ClinicalTrials.gov_Inquiries@pfizer.com
Scientific contact	Pfizer ClinicalTrials.gov Call Center, Pfizer Inc., 001 800-718-1021, ClinicalTrials.gov_Inquiries@pfizer.com

Notes:

Paediatric regulatory details

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

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	24 June 2011
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	02 March 2011
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

1. To assess the immunogenicity of 60 microgram (mcg), 120 mcg, and 200 mcg of recombinant lipoprotein 2086 (rLP2086) as measured by serum bactericidal assay (SBA) to meningococcal serogroup B (MnB) strains expressing LP2086 subfamily A and B proteins in healthy infants 1 month after the infant series.
2. To assess the safety and tolerability of 20 mcg, 60 mcg, 120 mcg, and 200 mcg of rLP2086 when given with routine childhood vaccines in healthy infants and toddlers.

Protection of trial subjects:

The study was in compliance with the ethical principles derived from the Declaration of Helsinki and in compliance with all International Conference on Harmonization (ICH) Good Clinical Practice (GCP) Guidelines. All the local regulatory requirements pertinent to safety of trial subjects were followed.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	09 January 2009
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Spain: 46
Worldwide total number of subjects	46
EEA total number of subjects	46

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)	46
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:

In this study, subjects were to receive rLP2086 vaccine at 2, 4, 6 and 12 months of age. Due to premature termination of study, only single dose of 20 or 60 mcg of rLP2086 vaccine was administered at 2 months and planned treatments of rLP2086 vaccine 120 mcg and 200 mcg were not administered.

Pre-assignment

Screening details:

A total of 744 subjects were planned to be enrolled in this study. Of which 46 subjects were randomized and assigned to treatment.

Period 1

Period 1 title	Stage 1 (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Single blind
Roles blinded	Subject

Arms

Are arms mutually exclusive?	Yes
Arm title	Control

Arm description:

Routine childhood vaccines (InfanrixHexa, Meningitec, Prevenar and Rotarix) according to local practice.

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

Dosage and administration details:

Subjects received InfanrixHexa at 2 months of age.

Investigational medicinal product name	Meningitec
Investigational medicinal product code	
Other name	Meningococcal Serogroup C vaccine
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received Meningococcal Serogroup C vaccine at 2 months of age.

Investigational medicinal product name	Prevenar
Investigational medicinal product code	
Other name	Pneumococcal Conjugate Vaccine
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received 0.5 milliliter (mL) of Prevenar at 2 months of age.

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

Dosage and administration details: Subjects received Rotarix at 2 months of age.

Arm title	rLP2086 20 mcg
Arm description: rLP2086 20 mcg vaccine along with routine childhood vaccines according to local practice.	
Arm type	Experimental
Investigational medicinal product name	Recombinant lipoprotein 2086
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use
Dosage and administration details: Subjects received single 20 mcg dose of rLP2086.	
Investigational medicinal product name	InfanrixHexa
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use
Dosage and administration details: Subjects received InfanrixHexa at 2 months of age.	
Investigational medicinal product name	Meningitec
Investigational medicinal product code	
Other name	Meningococcal Serogroup C vaccine
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use
Dosage and administration details: Subjects received Meningococcal Serogroup C vaccine at 2 months of age.	
Investigational medicinal product name	Prevenar
Investigational medicinal product code	
Other name	Pneumococcal Conjugate Vaccine
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use
Dosage and administration details: Subjects received 0.5 milliliter (mL) of Prevenar at 2 months of age.	
Investigational medicinal product name	Rotarix
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use
Dosage and administration details: Subjects received Rotarix at 2 months of age.	
Arm title	rLP2086 60 mcg
Arm description: rLP2086 60 mcg vaccine along with routine childhood vaccines according to local practice.	
Arm type	Experimental

Investigational medicinal product name	Recombinant lipoprotein 2086
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received single 60 mcg dose of rLP2086.

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

Dosage and administration details:

Subjects received InfanrixHexa at 2 months of age.

Investigational medicinal product name	Meningitec
Investigational medicinal product code	
Other name	Meningococcal Serogroup C vaccine
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received Meningococcal Serogroup C vaccine at 2 months of age.

Investigational medicinal product name	Prevenar
Investigational medicinal product code	
Other name	Pneumococcal Conjugate Vaccine
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

Subjects received 0.5 milliliter (mL) of Prevenar at 2 months of age.

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

Dosage and administration details:

Subjects received Rotarix at 2 months of age.

Number of subjects in period 1	Control	rLP2086 20 mcg	rLP2086 60 mcg
Started	14	22	10
Completed	0	0	0
Not completed	14	22	10
Adverse Event	-	1	1
Discontinuation by Sponsor	14	21	9

Baseline characteristics

Reporting groups	
Reporting group title	Control
Reporting group description:	
Routine childhood vaccines (InfanrixHexa, Meningitec, Prevenar and Rotarix) according to local practice.	
Reporting group title	rLP2086 20 mcg
Reporting group description:	
rLP2086 20 mcg vaccine along with routine childhood vaccines according to local practice.	
Reporting group title	rLP2086 60 mcg
Reporting group description:	
rLP2086 60 mcg vaccine along with routine childhood vaccines according to local practice.	

Reporting group values	Control	rLP2086 20 mcg	rLP2086 60 mcg
Number of subjects	14	22	10
Age categorical Units: Subjects			
Age continuous Units: days			
arithmetic mean	63.6	64	71.6
standard deviation	± 11.57	± 10.02	± 11.35
Gender categorical Units: Subjects			
Female	6	12	4
Male	8	10	6

Reporting group values	Total		
Number of subjects	46		
Age categorical Units: Subjects			
Age continuous Units: days			
arithmetic mean			
standard deviation	-		
Gender categorical Units: Subjects			
Female	22		
Male	24		

End points

End points reporting groups

Reporting group title	Control
Reporting group description:	
Routine childhood vaccines (InfanrixHexa, Meningitec, Prevenar and Rotarix) according to local practice.	
Reporting group title	rLP2086 20 mcg
Reporting group description:	
rLP2086 20 mcg vaccine along with routine childhood vaccines according to local practice.	
Reporting group title	rLP2086 60 mcg
Reporting group description:	
rLP2086 60 mcg vaccine along with routine childhood vaccines according to local practice.	

Primary: Percentage of Subjects Achieving at Least 1:4 rLP2086-specific Serum Bactericidal Assay (SBA) Titer to 1 Subfamily A Strain and 1 Subfamily B Strain

End point title	Percentage of Subjects Achieving at Least 1:4 rLP2086-specific Serum Bactericidal Assay (SBA) Titer to 1 Subfamily A Strain and 1 Subfamily B Strain[1]
End point description:	
Percentage of Subjects Achieving at Least 1:4 rLP2086-specific SBA Titer to 1 Subfamily A Strain and 1 Subfamily B Strain. Results were not reported, as no immunogenicity data was collected due to study termination prior to first post vaccination blood draw.	
End point type	Primary
End point timeframe:	
1 month after Dose 3	

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: No statistical analyses was done since no descriptive data was collected due to early study termination.

End point values	Control	rLP2086 20 mcg	rLP2086 60 mcg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	0[2]	0[3]	0[4]	
Units: percentage of subjects				
number (not applicable)				

Notes:

[2] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.
[3] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.
[4] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Subjects With at Least One Adverse Event (AE)

End point title	Percentage of Subjects With at Least One Adverse Event (AE)[5]

End point description:

The Safety population included all subjects who have received at least 1 dose of the investigational vaccine.

End point type	Primary

End point timeframe:

From signing of informed consent form to completion of study (up to 2 years)

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: No statistical analysis have been specified as descriptive statistic was planned.

End point values	Control	rLP2086 20 mcg	rLP2086 60 mcg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	14	22	10	
Units: percentage of subjects				
number (not applicable)	21.4	31.8	20	

Statistical analyses

No statistical analyses for this end point

Secondary: Serum Bactericidal Assay (SBA) Geometric Mean Titers (GMTs) for 1 Subfamily A Strain and 1 Subfamily B Strain

End point title	Serum Bactericidal Assay (SBA) Geometric Mean Titers (GMTs) for 1 Subfamily A Strain and 1 Subfamily B Strain

End point description:

Results were not reported, as no immunogenicity data was collected due to study termination prior to first post vaccination blood draw.

End point type	Secondary

End point timeframe:

1 month after Dose 2, Dose 3; before Dose 4

End point values	Control	rLP2086 20 mcg	rLP2086 60 mcg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	0[6]	0[7]	0[8]	
Units: titer				
geometric mean (confidence interval 95%)	(to)	(to)	(to)	

Notes:

[6] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.
[7] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.
[8] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Subjects Achieving at Least 1:4, 1:8, 1:16, 1:32, 1:64, 1:128 rLP2086-specific SBA Titer to 1 Subfamily A Strain and 1 Subfamily B Strain

End point title	Percentage of Subjects Achieving at Least 1:4, 1:8, 1:16, 1:32, 1:64, 1:128 rLP2086-specific SBA Titer to 1 Subfamily A Strain and 1 Subfamily B Strain

End point description:

Results were not reported, as no immunogenicity data was collected due to study termination prior to first post vaccination blood draw.

End point type	Secondary

End point timeframe:

1 month after Dose 2, Dose 3; before Dose 4

End point values	Control	rLP2086 20 mcg	rLP2086 60 mcg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	0[9]	0[10]	0[11]	
Units: percentage of subjects				
number (not applicable)				

Notes:

[9] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.
[10] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.
[11] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Percentage of Subjects Achieving Response >=1:4 for Additional Meningococcal Serogroup B (MnB) Test Strain-specific SBA Titer

End point title	Percentage of Subjects Achieving Response >=1:4 for Additional Meningococcal Serogroup B (MnB) Test Strain-specific SBA Titer

End point description:

Results were not reported, as no immunogenicity data was collected due to study termination prior to first post vaccination blood draw.

End point type	Other pre-specified

End point timeframe:

1 month after Dose 2, Dose 3; before Dose 4; 1, 6, 12, 18, 24, 36, 48 months after Dose 4

End point values	Control	rLP2086 20 mcg	rLP2086 60 mcg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	0[12]	0[13]	0[14]	
Units: percentage of subjects				
number (not applicable)				

Notes:

[12] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.
[13] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.
[14] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Percentage of Subjects Achieving SBA Titer Levels >=1:4, >=1:8, >=1:16, >=1:32, >=1:64 and >=1:128 for Additional MnB Test Strains

End point title	Percentage of Subjects Achieving SBA Titer Levels >=1:4, >=1:8, >=1:16, >=1:32, >=1:64 and >=1:128 for Additional MnB Test Strains

End point description:

Results were not reported, as no immunogenicity data was collected due to study termination prior to first post vaccination blood draw.

End point type	Other pre-specified

End point timeframe:

1 month after Dose 2, Dose 3; before Dose 4; 1, 6, 12, 18, 24, 36, 48 months after Dose 4

End point values	Control	rLP2086 20 mcg	rLP2086 60 mcg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	0[15]	0[16]	0[17]	
Units: percentage of subjects				
number (not applicable)				

Notes:

[15] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.
[16] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.
[17] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Serum Bactericidal Assay (SBA) Geometirc Mean Titers (GMTs) for Additional MnB Test Strains

End point title	Serum Bactericidal Assay (SBA) Geometirc Mean Titers (GMTs) for Additional MnB Test Strains

End point description:

Results were not reported, as no immunogenicity data was collected due to study termination prior to first post vaccination blood draw.

End point type	Other pre-specified

End point timeframe:

1 month after Dose 2, Dose 3; before Dose 4; 1, 6, 12, 18, 24, 36, 48 months after Dose 4

End point values	Control	rLP2086 20 mcg	rLP2086 60 mcg	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	0[18]	0[19]	0[20]	
Units: titer				
geometric mean (confidence interval 95%)	(to)	(to)	(to)	

Notes:

[18] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.

[19] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.

[20] - Immunogenicity data was not collected as study was terminated prior to first scheduled blood draw.

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events:	
From signing of informed consent form till study termination	
Adverse event reporting additional description:	
Version was not captured, here 0.0 is mentioned for dictionary version.	
Assessment type	Non-systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	0.0

Reporting groups	
Reporting group title	Control
Reporting group description:	
Routine childhood vaccines (InfanrixHexa, Meningitec, Prevenar and Rotarix) according to local practice.	
Reporting group title	rLP2086 20 mcg
Reporting group description:	
rLP2086 20 mcg vaccine along with routine childhood vaccines according to local practice.	
Reporting group title	rLP2086 60 mcg
Reporting group description:	
rLP2086 60 mcg vaccine along with routine childhood vaccines according to local practice.	

Serious adverse events	Control	rLP2086 20 mcg	rLP2086 60 mcg
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 14 (0.00%)	4 / 22 (18.18%)	1 / 10 (10.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Infections and infestations			
Bronchitis			
subjects affected / exposed	0 / 14 (0.00%)	1 / 22 (4.55%)	0 / 10 (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
Meningitis aseptic			
subjects affected / exposed	0 / 14 (0.00%)	0 / 22 (0.00%)	1 / 10 (10.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory syncytial virus bronchiolitis			

subjects affected / exposed	0 / 14 (0.00%)	1 / 22 (4.55%)	0 / 10 (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
Urinary tract infection			
subjects affected / exposed	0 / 14 (0.00%)	2 / 22 (9.09%)	0 / 10 (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
Viral infection			
subjects affected / exposed	0 / 14 (0.00%)	1 / 22 (4.55%)	0 / 10 (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

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

Non-serious adverse events	Control	rLP2086 20 mcg	rLP2086 60 mcg
Total subjects affected by non-serious adverse events			
subjects affected / exposed	3 / 14 (21.43%)	4 / 22 (18.18%)	2 / 10 (20.00%)
Eye disorders			
Conjunctivitis			
subjects affected / exposed	1 / 14 (7.14%)	0 / 22 (0.00%)	0 / 10 (0.00%)
occurrences (all)	1	0	0
Gastrointestinal disorders			
Gastrooesophageal reflux disease			
subjects affected / exposed	0 / 14 (0.00%)	1 / 22 (4.55%)	1 / 10 (10.00%)
occurrences (all)	0	1	1
Respiratory, thoracic and mediastinal disorders			
Asthma			
subjects affected / exposed	1 / 14 (7.14%)	0 / 22 (0.00%)	0 / 10 (0.00%)
occurrences (all)	1	0	0
Skin and subcutaneous tissue disorders			
Dermatitis			
subjects affected / exposed	1 / 14 (7.14%)	0 / 22 (0.00%)	0 / 10 (0.00%)
occurrences (all)	1	0	0
Rash			

subjects affected / exposed	0 / 14 (0.00%)	1 / 22 (4.55%)	0 / 10 (0.00%)
occurrences (all)	0	1	0
Infections and infestations			
Gastroenteritis			
subjects affected / exposed	0 / 14 (0.00%)	1 / 22 (4.55%)	0 / 10 (0.00%)
occurrences (all)	0	1	0
Nasopharyngitis			
subjects affected / exposed	0 / 14 (0.00%)	0 / 22 (0.00%)	1 / 10 (10.00%)
occurrences (all)	0	0	1
Respiratory tract infection			
subjects affected / exposed	1 / 14 (7.14%)	1 / 22 (4.55%)	0 / 10 (0.00%)
occurrences (all)	1	1	0
Respiratory tract infection viral			
subjects affected / exposed	1 / 14 (7.14%)	0 / 22 (0.00%)	0 / 10 (0.00%)
occurrences (all)	1	0	0
Viral infection			
subjects affected / exposed	0 / 14 (0.00%)	1 / 22 (4.55%)	0 / 10 (0.00%)
occurrences (all)	0	1	0

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

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

Immunogenicity results were not reported because the study was terminated due to the reactogenicity profile of the vaccine in infants prior to the first scheduled post-vaccination blood draw and no immunogenicity data were collected.

Notes: