Clinical trial results:
A multicenter, open-label study to investigate the pharmacokinetics of commercial lacosamide oral formulation as therapy in children (aged 1 month to 17 years) with epilepsy.

Summary

EudraCT number	2014-002629-36
Trial protocol	Outside EU/EEA
Global end of trial date	29 July 2014

Results information

Result version number	v1 (current)
This version publication date	30 June 2016
First version publication date	11 February 2015

Trial information

Trial identification

Sponsor protocol code	SP1047

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	UCB Biosciences Inc
Sponsor organisation address	8010 Arco Corporate Drive, Raleigh, United States, 27617
Public contact	Clinical Trial Registries and Results Disclosure, UCB BIOSCIENCES GmbH, 0049 2173 48 15 15, clinicaltrials@ucb.com
Scientific contact	Clinical Trial Registries and Results Disclosure, UCB BIOSCIENCES GmbH, 0049 2173 48 15 15, clinicaltrials@ucb.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	Yes
EMA paediatric investigation plan number(s)	EMEA-000402-PIP02-11
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	24 October 2014
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	29 July 2014
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

The objective of this study is to evaluate the Pharmacokinetics of lacosamide in children with epilepsy, aged 1 month to 17 years.

Protection of trial subjects:

Informed consent were obtained from the subject's parent/ legal guardian and documented in accordance with local regulations, ICH-GCP requirements, and the ethical principles that have their origin in the principles of the Declaration of Helsinki. When possible or as required by the local IRB/IEC, assent was obtained from the subject. Prior to obtaining informed consent, information was given in a language and at a level of complexity understandable to the subject and/ or the subject's parent/legal guardian in both oral and written form by the investigator or designee. Each subject and/or subject's parent/legal guardian had the opportunity to discuss the study and its alternatives with the investigator.

Background therapy:

Subject had been prescribed LCM for the treatment of epilepsy for at least 1 month prior to Screening and had not been prescribed or maintained on LCM for the purposes of participating in this study. Lacosamide dose was stable for at least 7 days, and intake of the prescribed total daily dose confirmed for at least 3 days prior to participation.

Subject was on a stable AED dosage regimen. The daily dosage regimen of concomitant AED(s) therapy must have been kept stable for a period of at least 1 week (7 days) prior to participation.

Evidence for comparator:

Not Applicable

Actual start date of recruitment	11 April 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 States: 32
Worldwide total number of subjects	32
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)	2
Children (2-11 years)	21
Adolescents (12-17 years)	9
Adults (18-64 years)	0
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Recruitment for the SP1047 study began in April 2011. The overall study concluded in July 2014. This was a multicenter study with subjects enrolled by 9 sites across the United States of America.

Pre-assignment

Screening details:

The SP1047 study screened 34 patients. Out of the 34 patients, 2 subjects failed screening. This led to 32 subjects entering the SP1047 study.

Period 1

Period 1 title	Overall Study Population (overall period)
Is this the baseline period?	Yes
Allocation method	Non-randomised - controlled
Blinding used	Not blinded

Blinding implementation details:

Not Applicable

Arms

Arm title	Lacosamide, Commercially Available

Arm description:

Male or female subjects (1 month to 17 years of age) who had been prescribed LCM for the treatment of epilepsy for at least 1 month prior to Screening.

Arm type	Commercially available
Investigational medicinal product name	Commercially available, prescribed lacosamide
Investigational medicinal product code	SPM927
Other name	VIMPAT
Pharmaceutical forms	Oral solution, Tablet
Routes of administration	Oral use

Dosage and administration details:

Active substance: Lacosamide
Pharmaceutical form: Tablet and oral solution
Concentration: Tablets: 50 mg, 100 mg, 150 mg 200 mg, or Oral solution: 10 mg/ml
Route of Administration: Oral

Number of subjects in period 1	Lacosamide, Commercially Available
Started	32
Completed	32

Baseline characteristics

Reporting groups

Reporting group title	Overall Study Population

Reporting group description: -

Reporting group values	Overall Study Population	Total	
Number of subjects	32	32	
Age categorical			
The demographics and baseline characteristics consist of subjects in the Safety Set (SS). The SS consists of all subjects who signed the informed consent form and took a dose of their prescribed LCM in the presence of study personnel.			
Units: Subjects			
28 days - <24 months	2	2	
24 months - <12 years	21	21	
12 years - <18 years	9	9	
Age continuous			
The demographics and baseline characteristics consist of subjects in the Safety Set (SS). The SS consists of all subjects who signed the informed consent form and took a dose of their prescribed LCM in the presence of study personnel.			
Units: years			
arithmetic mean	8.93		
standard deviation	± 5.34	-	
Gender categorical			
The demographics and baseline characteristics consist of subjects in the Safety Set (SS). The SS consists of all subjects who signed the informed consent form and took a dose of their prescribed LCM in the presence of study personnel.			
Units: Subjects			
Female	18	18	
Male	14	14	
Racial Group			
The demographics and baseline characteristics consist of subjects in the Safety Set (SS). The SS consists of all subjects who signed the informed consent form and took a dose of their prescribed LCM in the presence of study personnel.			
Units: Subjects			
American Indian/ Alaskan Native	0	0	
Asian	0	0	
Black	6	6	
Native Hawaiian or other Pacific Islander	0	0	
White	21	21	
Other/ mixed	5	5	
Ethnicity			
The demographics and baseline characteristics consist of subjects in the Safety Set (SS). The SS consists of all subjects who signed the informed consent form and took a dose of their prescribed LCM in the presence of study personnel.			
Units: Subjects			
Hispanic or Latino	5	5	
Not Hispanic or Latino	27	27	

Weight			
The demographics and baseline characteristics consist of subjects in the Safety Set (SS). The SS consists of all subjects who signed the informed consent form and took a dose of their prescribed LCM in the presence of study personnel.			
Units: kilogram(s)			
arithmetic mean	32		
standard deviation	± 19.44	-	
Time Since Diagnosis			
The demographics and baseline characteristics consist of subjects in the Safety Set (SS). The SS consists of all subjects who signed the informed consent form and took a dose of their prescribed LCM in the presence of study personnel.			
Units: years			
arithmetic mean	5.22		
standard deviation	± 4.85	-	

End points

End points reporting groups

Reporting group title	Lacosamide, Commercially Available

Reporting group description:

Male or female subjects (1 month to 17 years of age) who had been prescribed LCM for the treatment of epilepsy for at least 1 month prior to Screening.

Primary: The total number of subjects experiencing at least one Adverse Event (AE) during the study

End point title	The total number of subjects experiencing at least one Adverse Event (AE) during the study[1]

End point description:

An AE is any untoward medical occurrence in a patient or clinical investigation subject administered a pharmaceutical product which does not necessarily have a causal relationship with this treatment. An AE can therefore be any unfavorable and unintended sign (including an abnormal laboratory finding), symptom, or disease temporally associated with the use of a medicinal (investigational) product, whether or not related to the medicinal (investigational) product.

End point type	Primary

End point timeframe:

AEs began to be collected at Screening and lasted through the Follow-up Period (approximately 19 days).

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 statistics (number and percentage of subjects) were presented for the primary safety outcome.

End point values	Lacosamide, Commercially Available			
Subject group type	Reporting group			
Number of subjects analysed	32[2]			
Units: participants	1			

Notes:

[2] - Analysis group: Safety Set (SS).

Statistical analyses

No statistical analyses for this end point

Primary: The total number of subject withdrawal due to at least one Adverse Event (AE) during the study

End point title	The total number of subject withdrawal due to at least one Adverse Event (AE) during the study[3]

End point description:

An AE is any untoward medical occurrence in a patient or clinical investigation subject administered a pharmaceutical product which does not necessarily have a causal relationship with this treatment. An AE can therefore be any unfavorable and unintended sign (including an abnormal laboratory finding), symptom, or disease temporally associated with the use of a medicinal (investigational) product, whether or not related to the medicinal (investigational) product.

End point type	Primary

End point timeframe:

AEs began to be collected at Screening and lasted through the Follow-up Period (approximately 19 days).

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 statistics (number and percentage of subjects) were presented for the primary safety outcome.

End point values	Lacosamide, Commercially Available			
Subject group type	Reporting group			
Number of subjects analysed	32[4]			
Units: participants	0			

Notes:

[4] - Analysis group: Safety Set (SS).

Statistical analyses

No statistical analyses for this end point

Primary: The total number of subjects experiencing at least one Serious Adverse Event (SAE) during the study

End point title	The total number of subjects experiencing at least one Serious Adverse Event (SAE) during the study[5]

End point description:

An SAE meets 1 or more of the following criteria:
-Death
-Life-threatening
-Significant or persistent disability/ incapacity
-Congenital anomaly/ birth defect
-Important medical event based upon appropriate medical judgment, may jeopardize the patient and may require medical or surgical intervention to prevent one of the other outcomes listed in the definition of serious
-Initial inpatient hospitalization or prolonged hospitalization

End point type	Primary

End point timeframe:

SAEs began to be collected at Screening and lasted through the Follow-up Period (approximately 19 days).

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 statistics (number and percentage of subjects) were presented for the primary safety outcome.

End point values	Lacosamide, Commercially Available			
Subject group type	Reporting group			
Number of subjects analysed	32[6]			
Units: participant	0			

Notes:

[6] - Analysis group: Safety Set (SS).

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Adverse Events (AEs) began to be collected at Screening and lasted through the Follow-up Period (approximately 19 days).

Adverse event reporting additional description:

Adverse event reporting consists of the Safety Set (SS). The SS consists of all subjects who signed the informed consent form and took a dose of their prescribed LCM in the presence of study personnel. There were no Serious Adverse Events (SAEs) reported during the study.

Assessment type	Non-systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	16.1

Reporting groups

Reporting group title	Overall Study

Reporting group description:

Adverse event reporting consists of the Safety Set (SS). The SS consists of all subjects who signed the informed consent form and took a dose of their prescribed LCM in the presence of study personnel. There were no Serious Adverse Events (SAEs) reported during the study.

Serious adverse events	Overall Study		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 32 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		

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

Non-serious adverse events	Overall Study		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	1 / 32 (3.13%)		
General disorders and administration site conditions			
Irritability			
subjects affected / exposed	1 / 32 (3.13%)		
occurrences (all)	1		
Gastrointestinal disorders			
Flatulence			
subjects affected / exposed	1 / 32 (3.13%)		
occurrences (all)	1		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
08 April 2011	The primary purpose of this substantial amendment was to introduce the stratification of subjects by age category to ensure that an appropriate number of subjects were included in each age range. This stratification was based on recommendations received from the United States' Federal Drug Administration (FDA) at a Type C meeting held on 07 Mar 2011.

Notes:

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.

Study SP1047 was terminated prematurely as sufficient pharmacokinetic data had been collected to determine the dosing scheme for subsequent studies.

Notes:

Online references

http://www.ncbi.nlm.nih.gov/pubmed/23859801