Clinical trial results:
Efficacy And Safety of Intranasal S0597 in Environmental Exposure Chamber Model of Seasonal Allergic Rhinitis: A Phase II, Single-Center, Randomized, Double-Blind, Placebo-Controlled Parallel Group Study

Summary

EudraCT number	2012-001613-16
Trial protocol	DE
Global end of trial date	02 November 2012

Results information

Result version number	v1 (current)
This version publication date	18 May 2019
First version publication date	18 May 2019

Trial information

Trial identification

Sponsor protocol code	SPARC_Ltd._CLR_12_03

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	Sun Pharma Advanced Research Company Ltd.
Sponsor organisation address	17/B, Mahal Indudtries Limited, Mahakali Caves Road, Andheri, (East), Mumbai, India, 400 093
Public contact	Head- Clinical Development, Sun Pharma Advanced Research, +91 2266455645, clinical.trials@sparcmail.com
Scientific contact	Head-Clinical Development, Sun Pharma Advanced Research, +91 2266455645, clinical.trials@sparcmail.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	19 March 2013
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	02 November 2012
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To assess efficacy and safety of intranasal S0597 compared to placebo in alleviating the signs and symptoms of seasonal allergic rhinitis in environmental Exposure chamber (EEC) model after 2 weeks of treatment

Protection of trial subjects:

The trial and site activities were monitored according to the ICH-GCP guidelines considering every aspect of the trial, ensuring that the rights, safety and well-being of patients are protected and consistent with the Declaration of Helsinki.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	09 July 2012
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	Germany: 159
Worldwide total number of subjects	159
EEA total number of subjects	159

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)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	157
From 65 to 84 years	2
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

Overall, of the 300 patients screened; 159 patients were enrolled in the study and the remaining 141 patients were screen failures.

Period 1

Period 1 title	Overall Trial (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	Test dose 1

Arm description: -

Arm type	Experimental
Investigational medicinal product name	Test 1
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Nasal spray
Routes of administration	Intranasal use

Dosage and administration details:

2 sprays each nostril twice daily from Day 1 to Day 15

Arm title	Test dose 2

Arm description: -

Arm type	Experimental
Investigational medicinal product name	Test 2
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Nasal spray
Routes of administration	Intranasal use

Dosage and administration details:

2 sprays each nostril twice daily from Day 1 to Day 15

Arm title	Test dose 3

Arm description: -

Arm type	Experimental
Investigational medicinal product name	Test 3
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Nasal spray
Routes of administration	Intranasal use

Dosage and administration details:

2 sprays each nostril twice daily from Day 1 to Day 15

Arm title	Placebo arm

Arm description: -	
Arm type	Placebo
Investigational medicinal product name	Vehicle
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Nasal spray
Routes of administration	Intranasal use

Dosage and administration details:

2 sprays each nostril twice daily from Day 1 to Day 15

Number of subjects in period 1	Test dose 1	Test dose 2	Test dose 3
Started	39	40	40
Completed	39	36	38
Not completed	0	4	2
Consent withdrawn by subject	-	4	2

Number of subjects in period 1	Placebo arm
Started	40
Completed	39
Not completed	1
Consent withdrawn by subject	1

Baseline characteristics

Reporting groups	
Reporting group title	Test dose 1
Reporting group description: -	
Reporting group title	Test dose 2
Reporting group description: -	
Reporting group title	Test dose 3
Reporting group description: -	
Reporting group title	Placebo arm
Reporting group description: -	

Reporting group values	Test dose 1	Test dose 2	Test dose 3
Number of subjects	39	40	40
Age categorical Units: Subjects			
Age continuous Units: years arithmetic mean standard deviation	 39 ± 11.38	 37.2 ± 9.50	 37.2 ± 11.54
Gender categorical Units: Subjects			
Female	19	14	21
Male	20	26	19

Reporting group values	Placebo arm	Total	
Number of subjects	40	159	
Age categorical Units: Subjects			
Age continuous Units: years arithmetic mean standard deviation	 37.9 ± 12.07	 -	
Gender categorical Units: Subjects			
Female	18	72	
Male	22	87	

End points

End points reporting groups

Reporting group title	Test dose 1
Reporting group description: -	
Reporting group title	Test dose 2
Reporting group description: -	
Reporting group title	Test dose 3
Reporting group description: -	
Reporting group title	Placebo arm
Reporting group description: -	

Primary: Change in total nasal symptom score in a 4-hour environmental challenge with Dactylis glomerate pollen in an environmental exposure chamber

End point title	Change in total nasal symptom score in a 4-hour environmental challenge with Dactylis glomerate pollen in an environmental exposure chamber
End point description:	
End point type	Primary
End point timeframe: Day 15 and Day 16	

End point values	Test dose 1	Test dose 2	Test dose 3	Placebo arm
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	39	37	39	39
Units: LSM				
least squares mean (standard error)				
Day 15	-2.4852 (± 0.2678)	-2.6091 (± 0.2764)	-2.7508 (± 0.2680)	-1.7166 (± 0.2698)
Day 16	-1.9710 (± 0.2841)	-2.0330 (± 0.2975)	-2.4925 (± 0.2881)	-0.5551 (± 0.2863)

Statistical analyses

Statistical analysis title	change in total nasal symptom score
Comparison groups	Test dose 1 v Test dose 2 v Test dose 3 v Placebo arm
Number of subjects included in analysis	154
Analysis specification	Pre-specified
Analysis type	equivalence
P-value	= 0.0005
Method	ANCOVA

Secondary: Change in the amount of nasal secretion in grams in a 4-hour environmental challenge with Dactylis glomerate pollen in an EEC

End point title	Change in the amount of nasal secretion in grams in a 4-hour environmental challenge with Dactylis glomerate pollen in an EEC

End point description:

End point type	Secondary

End point timeframe:

Day 15 and Day 16

End point values	Test dose 1	Test dose 2	Test dose 3	Placebo arm
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	39	37	39	39
Units: LSM				
least squares mean (standard error)				
Day 15	-3.6615 (± 0.3943)	-3.0711 (± 0.4049)	-3.8326 (± 0.3947)	-0.7699 (± 0.3955)
Day 16	-2.6152 (± 0.4095)	-2.2255 (± 0.4264)	-3.0582 (± 0.4155)	0.3927 (± 0.4110)

Statistical analyses

Statistical analysis title	Analysis of Nasal Secretion
Comparison groups	Test dose 1 v Test dose 3 v Placebo arm v Test dose 2
Number of subjects included in analysis	154
Analysis specification	Pre-specified
Analysis type	equivalence
P-value	< 0.0001
Method	ANCOVA

Secondary: Analysis of change in Nasal Congestion

End point title	Analysis of change in Nasal Congestion

End point description:

End point type	Secondary

End point timeframe:

Day 15 and Day 16 from baseline

End point values	Test dose 1	Test dose 2	Test dose 3	Placebo arm
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	39	37	39	39
Units: LSM				
least squares mean (standard error)				
Day 15	-0.8386 (± 0.0838)	-0.7876 (± 0.0867)	-0.8466 (± 0.0838)	-0.5186 (± 0.0846)
Day 16	-0.7098 (± 0.0892)	-0.6631 (± 0.0937)	-0.8125 (± 0.0903)	-0.3016 (± 0.0900)

Statistical analyses

Statistical analysis title	Analysis of change in Nasal Congestion
Comparison groups	Test dose 1 v Test dose 2 v Test dose 3 v Placebo arm
Number of subjects included in analysis	154
Analysis specification	Pre-specified
Analysis type	equivalence
P-value	= 0.0012
Method	ANCOVA

Secondary: Analysis of Change in Rhinorrhea

End point title	Analysis of Change in Rhinorrhea
End point description:	
End point type	Secondary
End point timeframe:	
Day 15 and Day 16 from baseline	

End point values	Test dose 1	Test dose 2	Test dose 3	Placebo arm
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	39	37	39	39
Units: LSM				
least squares mean (standard error)				
Day 15	-0.6078 (± 0.0740)	-0.6265 (± 0.0761)	-0.6783 (± 0.0741)	-0.3762 (± 0.0745)
Day 16	-0.4656 (± 0.0768)	-0.3783 (± 0.0801)	-0.5572 (± 0.0780)	-0.0985 (± 0.0774)

Statistical analyses

Statistical analysis title	Analysis of Change in Rhinorrhea
Comparison groups	Test dose 1 v Test dose 2 v Test dose 3 v Placebo arm
Number of subjects included in analysis	154
Analysis specification	Pre-specified
Analysis type	equivalence
P-value	= 0.0011
Method	ANCOVA

Secondary: Analysis of Change in Nasal itching	
End point title	Analysis of Change in Nasal itching
End point description:	
End point type	Secondary
End point timeframe:	
DAy 15 and Day 16 from baseline	

End point values	Test dose 1	Test dose 2	Test dose 3	Placebo arm
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	39	37	39	39
Units: LSM				
least squares mean (standard error)				
Day 15	-0.6137 (± 0.0794)	-0.6275 (± 0.0817)	-0.6921 (± 0.0792)	-0.4786 (± 0.0794)
Day 16	-0.4816 (± 0.0864)	-0.5374 (± 0.0903)	-0.6236 (± 0.0874)	-0.1624 (± 0.0865)

Statistical analyses

Statistical analysis title	Analysis of Change in Nasal itching
Comparison groups	Test dose 1 v Test dose 2 v Test dose 3 v Placebo arm
Number of subjects included in analysis	154
Analysis specification	Pre-specified
Analysis type	equivalence
P-value	= 0.0201
Method	ANCOVA

Secondary: Analysis of Change in Sneezing	
End point title	Analysis of Change in Sneezing
End point description:	

End point type	Secondary

End point timeframe:

DAy 15 and Day 16 from baseline

End point values	Test dose 1	Test dose 2	Test dose 3	Placebo arm
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	39	37	39	39
Units: LSM				
least squares mean (standard error)				
Day 15	-0.4262 (± 0.0683)	-0.5687 (± 0.0701)	-0.5327 (± 0.0684)	-0.3433 (± 0.0684)
Day 16	-0.3274 (± 0.0798)	-0.4380 (± 0.0831)	-0.4858 (± 0.0810)	-0.0119 (± 0.0800)

Statistical analyses

Statistical analysis title	Analysis of Change in Sneezing
Comparison groups	Test dose 1 v Test dose 2 v Test dose 3 v Placebo arm
Number of subjects included in analysis	154
Analysis specification	Pre-specified
Analysis type	equivalence
P-value	= 0.0023
Method	ANCOVA

Adverse events

Adverse events information	
Timeframe for reporting adverse events: 15 days	
Assessment type	Systematic
Dictionary used	
Dictionary name	MedDRA
Dictionary version	15.0
Reporting groups	
Reporting group title	Arm 1
Reporting group description: -	
Reporting group title	Arm 2
Reporting group description: -	
Reporting group title	Arm 3
Reporting group description: -	
Reporting group title	Arm 4
Reporting group description: -	

Serious adverse events	Arm 1	Arm 2	Arm 3
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 39 (0.00%)	1 / 40 (2.50%)	0 / 40 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Injury, poisoning and procedural complications			
Cartilage injury			
subjects affected / exposed	0 / 39 (0.00%)	1 / 40 (2.50%)	0 / 40 (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

Serious adverse events	Arm 4		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 40 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Injury, poisoning and procedural complications			
Cartilage injury			

subjects affected / exposed	0 / 40 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		

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

Non-serious adverse events	Arm 1	Arm 2	Arm 3
Total subjects affected by non-serious adverse events			
subjects affected / exposed	17 / 39 (43.59%)	15 / 40 (37.50%)	20 / 40 (50.00%)
Nervous system disorders			
Headache			
subjects affected / exposed	6 / 39 (15.38%)	5 / 40 (12.50%)	11 / 40 (27.50%)
occurrences (all)	10	7	16
Eye disorders			
Conjunctivitis allergic			
subjects affected / exposed	0 / 39 (0.00%)	0 / 40 (0.00%)	1 / 40 (2.50%)
occurrences (all)	0	0	1
Gastrointestinal disorders			
Nausea			
subjects affected / exposed	1 / 39 (2.56%)	1 / 40 (2.50%)	2 / 40 (5.00%)
occurrences (all)	0	0	2
Reproductive system and breast disorders			
Dysmenorrhoea			
subjects affected / exposed	2 / 39 (5.13%)	0 / 40 (0.00%)	0 / 40 (0.00%)
occurrences (all)	2	0	0
Respiratory, thoracic and mediastinal disorders			
Oropharyngeal pain			
subjects affected / exposed	1 / 39 (2.56%)	2 / 40 (5.00%)	1 / 40 (2.50%)
occurrences (all)	1	2	1
Epistaxis			
subjects affected / exposed	2 / 39 (5.13%)	1 / 40 (2.50%)	1 / 40 (2.50%)
occurrences (all)	2	1	1
Nasal mucosal disorder			
subjects affected / exposed	2 / 39 (5.13%)	0 / 40 (0.00%)	0 / 40 (0.00%)
occurrences (all)	2	0	0
Infections and infestations			

SINUSITIS			
subjects affected / exposed	0 / 39 (0.00%)	0 / 40 (0.00%)	1 / 40 (2.50%)
occurrences (all)	0	0	1
UPPER RESPIRATORY TRACT INFECTION			
subjects affected / exposed	0 / 39 (0.00%)	2 / 40 (5.00%)	0 / 40 (0.00%)
occurrences (all)	0	1	0
NASOPHARYNGITIS			
subjects affected / exposed	2 / 39 (5.13%)	2 / 40 (5.00%)	0 / 40 (0.00%)
occurrences (all)	2	2	0

Non-serious adverse events	Arm 4		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	19 / 40 (47.50%)		
Nervous system disorders			
Headache			
subjects affected / exposed	10 / 40 (25.00%)		
occurrences (all)	13		
Eye disorders			
Conjunctivitis allergic			
subjects affected / exposed	2 / 40 (5.00%)		
occurrences (all)	2		
Gastrointestinal disorders			
Nausea			
subjects affected / exposed	2 / 40 (5.00%)		
occurrences (all)	2		
Reproductive system and breast disorders			
Dysmenorrhoea			
subjects affected / exposed	0 / 40 (0.00%)		
occurrences (all)	0		
Respiratory, thoracic and mediastinal disorders			
Oropharyngeal pain			
subjects affected / exposed	1 / 40 (2.50%)		
occurrences (all)	1		
Epistaxis			
subjects affected / exposed	0 / 40 (0.00%)		
occurrences (all)	0		
Nasal mucosal disorder			

subjects affected / exposed	0 / 40 (0.00%)		
occurrences (all)	0		
Infections and infestations			
SINUSITIS			
subjects affected / exposed	1 / 40 (2.50%)		
occurrences (all)	1		
UPPER RESPIRATORY TRACT INFECTION			
subjects affected / exposed	1 / 40 (2.50%)		
occurrences (all)	1		
NASOPHARYNGITIS			
subjects affected / exposed	0 / 40 (0.00%)		
occurrences (all)	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

None reported