Clinical trial results:
Randomised, double-blind, double-dummy, vehicle controlled parallel trial comparing a novel mometasone furoate nasal spray vs. Nasonex® nasal spray vs. vehicle nasal spray in patients with allergic rhinitis

Summary

EudraCT number	2013-000654-22
Trial protocol	DE
Global end of trial date	26 February 2015

Results information

Result version number	v1 (current)
This version publication date	21 July 2016
First version publication date	21 July 2016

Trial information

Trial identification

Sponsor protocol code	13-01/MOM-N

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	Dermapharm AG
Sponsor organisation address	Lil-Dagover-Ring 7, Gruenwald, Germany, 82031
Public contact	Head of Clinical Department, Clinical Department, 0049 08964186-0,
Scientific contact	Head of Clinical Department, Clinical Department, 0049 08964186-0,

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	29 February 2016
Is this the analysis of the primary completion data?	Yes
Primary completion date	26 February 2015
Global end of trial reached?	Yes
Global end of trial date	26 February 2015
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

Evaluation of the efficacy and safety of a new nasal spray with the active ingredient mometasone furoate vs. the originator Nasonex® vs. vehicle in patients with allergic rhinitis.

Protection of trial subjects:

There were no specific measures necessary.

Background therapy:

There was no background therapy.

Evidence for comparator:

The trial aimed to show non-inferiority with regard to the comparator in order to obtain a generic marketing authorization for the test product.

Actual start date of recruitment	20 August 2013
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: 101
Worldwide total number of subjects	101
EEA total number of subjects	101

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)	93
From 65 to 84 years	8

85 years and over	0

Subject disposition

Recruitment

Recruitment details:

all study centers in Germany; first patient first visit: 16. September 2013; last patient last visit: 26. February 2015

Pre-assignment

Screening details:

Main inclusion criteria:
Women or men ≥ 18 years of age; Diagnosis of persistent allergic rhinitis: symptoms present for more than 4 consecutive weeks; the patient is clinically symptomatic with the following baseline symptom scores after 1 week of screening: iTNSS ≥ 6, with nasal congestion score ≥ 2, and rhinorrhea, nasal itching or sneezing ≥ 2

Period 1

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

Blinding implementation details:

The devices for administration of test and reference are visually different. Therefore a double-dummy study design was chosen to facilitate double-blind application of the study drugs. Each patient received two devices with stochastical assignment of the active ingredient preparation to one of the devices. He/she had to apply the study medication from both devices in a pre-specified sequence throughout the course of the study.

Arms

Are arms mutually exclusive?	Yes
Arm title	Mometasone nasal spray

Arm description:

Treatment arm with active ingredient in the test device

Arm type	Experimental
Investigational medicinal product name	Mometasone furoate nasal spray
Investigational medicinal product code	R01AD09
Other name	
Pharmaceutical forms	Nasal spray, emulsion
Routes of administration	Intranasal use

Dosage and administration details:

One actuation of nasal spray per nostril twice daily was applied (50 µg mometasone furoate per actuation). The resulting total daily dose was 200 µg mometasone furoate.

Arm title	Nasonex

Arm description:

Treatment arm with active ingredient in the reference device

Arm type	Active comparator
Investigational medicinal product name	Nasonex
Investigational medicinal product code	R01AD09
Other name	
Pharmaceutical forms	Nasal spray, emulsion
Routes of administration	Intranasal use

Dosage and administration details:

One actuation of nasal spray per nostril twice daily was applied (50 µg mometasone furoate per actuation). The resulting total daily dose was 200 µg,

Arm title	Placebo

Arm description:

Treatment arm without active ingredient in both devices

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Nasal spray, emulsion
Routes of administration	Intranasal use

Dosage and administration details:

One actuation of nasal spray per nostril, twice daily

Number of subjects in period 1	Mometasone nasal spray	Nasonex	Placebo
Started	43	36	22
Completed	39	34	19
Not completed	4	2	3
Adverse event, non-fatal	1	2	1
Patient's request because of healing	2	-	1
Protocol deviation	1	-	-
Lack of efficacy	-	-	1

Baseline characteristics

Reporting groups

Reporting group title	Treatment period

Reporting group description: -

Reporting group values	Treatment period	Total	
Number of subjects	101	101	
Age categorical Units: Subjects			
In utero	0	0	
Preterm newborn infants (gestational age < 37 wks)	0	0	
Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	0	0	
Adolescents (12-17 years)	0	0	
Adults (18-64 years)	93	93	
From 65-84 years	8	8	
85 years and over	0	0	
Gender categorical Units: Subjects			
Female	66	66	
Male	35	35	

Subject analysis sets

Subject analysis set title	Safety data set
Subject analysis set type	Safety analysis

Subject analysis set description:

comprises all patients who had administered the study medication at least once and provide any follow-up data

Subject analysis set title	Full Analysis Set
Subject analysis set type	Intention-to-treat

Subject analysis set description:

includes all patients of the safety data set who comply with the study diagnosis (according to the associated inclusion criteria) and provide the baseline value and at least one post baseline value of the TNSS (either iTNSS or rTNSS)

Reporting group values	Safety data set	Full Analysis Set	
Number of subjects	101	101	
Age categorical Units: Subjects			
In utero	0	0	
Preterm newborn infants (gestational age < 37 wks)	0	0	
Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	0	0	

Adolescents (12-17 years)	0	0	
Adults (18-64 years)	93	93	
From 65-84 years	8	8	
85 years and over	0	0	
Gender categorical Units: Subjects			
Female	66	66	
Male	35	35	

End points

End points reporting groups

Reporting group title	Mometasone nasal spray
Reporting group description:	
Treatment arm with active ingredient in the test device	
Reporting group title	Nasonex
Reporting group description:	
Treatment arm with active ingredient in the reference device	
Reporting group title	Placebo
Reporting group description:	
Treatment arm without active ingredient in both devices	
Subject analysis set title	Safety data set
Subject analysis set type	Safety analysis
Subject analysis set description:	
comprises all patients who had administered the study medication at least once and provide any follow-up data	
Subject analysis set title	Full Analysis Set
Subject analysis set type	Intention-to-treat
Subject analysis set description:	
includes all patients of the safety data set who comply with the study diagnosis (according to the associated inclusion criteria) and provide the baseline value and at least one post baseline value of the TNSS (either iTNSS or rTNSS)	

Primary: Treatment effect

End point title	Treatment effect[1]
End point description:	
change of DrTNSS between start and end of treatment; calculated as the mean of the morning assessments (AMrTNSS) and the evening assessments (PMrTNSS) of the Reflective Total Nasal Symptom Score (rTNSS) in the patient diaries	
End point type	Primary
End point timeframe:	
Between Start and End of Treatment.	

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: Due to the substantial reduction in sample size there was not enough power to investigate the primary objectives of the study (statistical equivalence of the active treatments and superiority of both preparations over placebo) in a reliable way. The primary efficacy parameter is therefore only displayed in a descriptive way.

End point values	Mometasone nasal spray	Nasonex	Placebo	Full Analysis Set
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	43	36	22	101
Units: score units				
median (full range (min-max))	-6.5 (-11.5 to 3.5)	-5.8 (-10.5 to 1)	-6.5 (-9 to -1)	-6.5 (-11.5 to 3.5)

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events: Inclusion visit (= start of screening) to End of treatment (Main visit)	
Assessment type	Non-systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	18.0

Reporting groups	
Reporting group title	Mometasone nasal spray
Reporting group description: Treatment arm with active ingredient preparation in test device	
Reporting group title	Nasonex
Reporting group description: Treatment arm with active ingredient in the reference device	
Reporting group title	Placebo
Reporting group description: Treatment arm without active ingredient in both devices	

Serious adverse events	Mometasone nasal spray	Nasonex	Placebo
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 43 (0.00%)	0 / 36 (0.00%)	0 / 22 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0

Frequency threshold for reporting non-serious adverse events: 0.05 %

Non-serious adverse events	Mometasone nasal spray	Nasonex	Placebo
Total subjects affected by non-serious adverse events			
subjects affected / exposed	13 / 43 (30.23%)	17 / 36 (47.22%)	11 / 22 (50.00%)
General disorders and administration site conditions			
Mucosal dryness			
subjects affected / exposed	1 / 43 (2.33%)	0 / 36 (0.00%)	0 / 22 (0.00%)
occurrences (all)	1	0	0
Respiratory, thoracic and mediastinal disorders			

Allergic pharyngitis			
subjects affected / exposed	0 / 43 (0.00%)	0 / 36 (0.00%)	1 / 22 (4.55%)
occurrences (all)	0	0	1
Asthma			
subjects affected / exposed	0 / 43 (0.00%)	1 / 36 (2.78%)	0 / 22 (0.00%)
occurrences (all)	0	1	0
Cough			
subjects affected / exposed	1 / 43 (2.33%)	0 / 36 (0.00%)	0 / 22 (0.00%)
occurrences (all)	1	0	0
Dysphonia			
subjects affected / exposed	1 / 43 (2.33%)	0 / 36 (0.00%)	0 / 22 (0.00%)
occurrences (all)	1	0	0
Epistaxis			
subjects affected / exposed	1 / 43 (2.33%)	3 / 36 (8.33%)	1 / 22 (4.55%)
occurrences (all)	1	5	1
Nasal discomfort			
subjects affected / exposed	0 / 43 (0.00%)	1 / 36 (2.78%)	0 / 22 (0.00%)
occurrences (all)	0	1	0
Nasal dryness			
subjects affected / exposed	1 / 43 (2.33%)	1 / 36 (2.78%)	1 / 22 (4.55%)
occurrences (all)	1	1	1
Oropharyngeal pain			
subjects affected / exposed	0 / 43 (0.00%)	1 / 36 (2.78%)	0 / 22 (0.00%)
occurrences (all)	0	1	0
Rhinitis atrophic			
subjects affected / exposed	0 / 43 (0.00%)	1 / 36 (2.78%)	0 / 22 (0.00%)
occurrences (all)	0	1	0
Sneezing			
subjects affected / exposed	0 / 43 (0.00%)	0 / 36 (0.00%)	1 / 22 (4.55%)
occurrences (all)	0	0	1
Throat irritation			
subjects affected / exposed	1 / 43 (2.33%)	1 / 36 (2.78%)	0 / 22 (0.00%)
occurrences (all)	1	1	0
Investigations			
Blood cortisol increased			

subjects affected / exposed	0 / 43 (0.00%)	1 / 36 (2.78%)	0 / 22 (0.00%)
occurrences (all)	0	1	0
Platelet count increased			
subjects affected / exposed	1 / 43 (2.33%)	0 / 36 (0.00%)	0 / 22 (0.00%)
occurrences (all)	1	0	0
Injury, poisoning and procedural complications			
Post-traumatic pain			
subjects affected / exposed	1 / 43 (2.33%)	0 / 36 (0.00%)	0 / 22 (0.00%)
occurrences (all)	1	0	0
Stab wound			
subjects affected / exposed	0 / 43 (0.00%)	1 / 36 (2.78%)	0 / 22 (0.00%)
occurrences (all)	0	1	0
Nervous system disorders			
Dysgeusia			
subjects affected / exposed	1 / 43 (2.33%)	0 / 36 (0.00%)	0 / 22 (0.00%)
occurrences (all)	1	0	0
Headache			
subjects affected / exposed	1 / 43 (2.33%)	2 / 36 (5.56%)	4 / 22 (18.18%)
occurrences (all)	1	2	5
Blood and lymphatic system disorders			
Iron deficiency anaemia			
subjects affected / exposed	0 / 43 (0.00%)	0 / 36 (0.00%)	1 / 22 (4.55%)
occurrences (all)	0	0	1
Ear and labyrinth disorders			
Ear pain			
subjects affected / exposed	0 / 43 (0.00%)	0 / 36 (0.00%)	1 / 22 (4.55%)
occurrences (all)	0	0	1
Eye disorders			
Eczema eyelids			
subjects affected / exposed	0 / 43 (0.00%)	0 / 36 (0.00%)	1 / 22 (4.55%)
occurrences (all)	0	0	1
Eye allergy			
subjects affected / exposed	0 / 43 (0.00%)	0 / 36 (0.00%)	1 / 22 (4.55%)
occurrences (all)	0	0	1
Gastrointestinal disorders			

Abdominal pain upper			
subjects affected / exposed	1 / 43 (2.33%)	0 / 36 (0.00%)	0 / 22 (0.00%)
occurrences (all)	1	0	0
Skin and subcutaneous tissue disorders			
Dermatitis allergic			
subjects affected / exposed	0 / 43 (0.00%)	0 / 36 (0.00%)	1 / 22 (4.55%)
occurrences (all)	0	0	1
Eczema			
subjects affected / exposed	0 / 43 (0.00%)	0 / 36 (0.00%)	1 / 22 (4.55%)
occurrences (all)	0	0	1
Pruritus			
subjects affected / exposed	0 / 43 (0.00%)	0 / 36 (0.00%)	1 / 22 (4.55%)
occurrences (all)	0	0	1
Renal and urinary disorders			
Cystitis noninfective			
subjects affected / exposed	1 / 43 (2.33%)	0 / 36 (0.00%)	0 / 22 (0.00%)
occurrences (all)	1	0	0
Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	0 / 43 (0.00%)	1 / 36 (2.78%)	0 / 22 (0.00%)
occurrences (all)	0	1	0
Back pain			
subjects affected / exposed	1 / 43 (2.33%)	0 / 36 (0.00%)	0 / 22 (0.00%)
occurrences (all)	1	0	0
Infections and infestations			
Bronchitis			
subjects affected / exposed	0 / 43 (0.00%)	1 / 36 (2.78%)	1 / 22 (4.55%)
occurrences (all)	0	1	1
Infectious mononucleosis			
subjects affected / exposed	0 / 43 (0.00%)	1 / 36 (2.78%)	0 / 22 (0.00%)
occurrences (all)	0	1	0
Nasopharyngitis			
subjects affected / exposed	3 / 43 (6.98%)	4 / 36 (11.11%)	1 / 22 (4.55%)
occurrences (all)	3	4	1
Oral herpes			

subjects affected / exposed	1 / 43 (2.33%)	1 / 36 (2.78%)	0 / 22 (0.00%)
occurrences (all)	1	1	0
Rhinitis			
subjects affected / exposed	0 / 43 (0.00%)	0 / 36 (0.00%)	1 / 22 (4.55%)
occurrences (all)	0	0	1
Upper respiratory tract infection			
subjects affected / exposed	0 / 43 (0.00%)	1 / 36 (2.78%)	1 / 22 (4.55%)
occurrences (all)	0	1	1
Metabolism and nutrition disorders			
Zinc deficiency			
subjects affected / exposed	0 / 43 (0.00%)	0 / 36 (0.00%)	1 / 22 (4.55%)
occurrences (all)	0	0	1

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? Yes

Date	Interruption	Restart date
26 February 2015	The trial was prematurely ended due to a low recruitment rate. There were no safety concerns.	-

Notes:

Limitations and caveats

None reported