Clinical trial results:
Multicenter, double-blind, randomized, placebo-controlled study of mometasone furoate nasal spray in pediatric subjects with perennial allergic rhinitis (P06332)

Summary

EudraCT number	2014-004921-41
Trial protocol	Outside EU/EEA
Global end of trial date	15 October 2010

Results information

Result version number	v1 (current)
This version publication date	05 April 2016
First version publication date	19 July 2015

Trial information

Trial identification

Sponsor protocol code	P06332

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01135134
WHO universal trial number (UTN)	-
Other trial identifiers	Protocol number: MK-0887-174

Notes:

Sponsors

Sponsor organisation name	Merck Sharp & Dohme Corp.
Sponsor organisation address	2000 Galloping Hill Road, Kenilworth, NJ, United States, 07033
Public contact	Clinical Trials Disclosure, Merck Sharp & Dohme Corp., ClinicalTrialsDisclosure@merck.com
Scientific contact	Clinical Trials Disclosure, Merck Sharp & Dohme Corp., ClinicalTrialsDisclosure@merck.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?	Yes

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	15 October 2010
Is this the analysis of the primary completion data?	Yes
Primary completion date	15 October 2010
Global end of trial reached?	Yes
Global end of trial date	15 October 2010
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

This is a multicenter, randomized, parallel design, double-blind study of mometasone furoate (MF) in pediatric participants with perennial allergic rhinitis. Participants 5 to 15 years of age with perennial allergic rhinitis will enter a no-treatment observation period of 7 days at minimum and eligibility for inclusion in this study will be assessed. Following the observation period, eligible participants will be randomized to MF or MF placebo for a 2-week double-blind treatment. At each clinic visit (at the start of treatment and after 1 and 2 weeks of treatment or at discontinuation), nasal symptom scores, nasal findings, and adverse events (AEs), will be evaluated. A 30-day follow-up visit will take place after the completion (or discontinuation) of the 2-week treatment period, to confirm presence or absence of serious adverse events (SAEs) and trial procedure-related AEs.

Protection of trial subjects:

This study was conducted in conformance with Good Clinical Practice standards and applicable country and/or local statutes and regulations regarding ethical committee review, informed consent, and the protection of human subjects participating in biomedical research.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	02 June 2010
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	Japan: 333
Worldwide total number of subjects	333
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)	0
Children (2-11 years)	220
Adolescents (12-17 years)	113

Adults (18-64 years)	0
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

This study was performed in 19 clinical sites in Japan.

Pre-assignment

Screening details:

Male or female outpatients (5 to 15 years) with symptoms of perennial allergic rhinitis of moderate to severe degree (classification of severity in the Practical Guideline for the Management of Allergic Rhinitis in Japan) as well as a total score of at least 4 for nasal symptoms (sneezing, rhinorrhea, nasal congestion, and nasal itching)

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, Carer

Arms

Are arms mutually exclusive?	Yes
Arm title	Mometasone furoate nasal spray (MFNS) (50 µg spray)

Arm description:

MFNS, 50 µg spray device. The dose will be as follows: for ages 5 to 11 years: one spray per nostril once daily (100 µg/day as MF) in the morning for 2 weeks and for ages 12 to 15 years: 2 sprays per nostril once daily (200 µg/day as MF) in the morning for 2 weeks.

Arm type	Experimental
Investigational medicinal product name	Mometasone furoate nasal spray (MFNS) (50 µg spray)
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Nasal spray
Routes of administration	Nasal use

Dosage and administration details:

MFNS, 50 µg spray device. The dose will be as follows: for ages 5 to 11 years: one spray per nostril once daily (100 µg/day as MF) in the morning for 2 weeks and for ages 12 to 15 years: 2 sprays per nostril once daily (200 µg/day as MF) in the morning for 2 weeks.

Arm title	Placebo

Arm description:

Placebo Comparator: MF placebo nasal spray, administration will be as follows: for subjects ages 5 to 11 years: one spray per nostril once daily in the morning for 2 weeks and for subjects ages 12 to 15 years: 2 sprays per nostril once daily in the morning for 2 weeks.

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

Dosage and administration details:

Placebo Comparator: MF placebo nasal spray, administration will be as follows: for subjects ages 5 to 11 years: one spray per nostril once daily in the morning for 2 weeks and for subjects ages 12 to 15 years: 2 sprays per nostril once daily in the morning for 2 weeks.

Number of subjects in period 1	Mometasone furoate nasal spray (MFNS) (50 µg spray)	Placebo
Started	220	113
Completed	218	112
Not completed	2	1
Adverse event, non-fatal	1	1
Met discontinuation criteria	1	-

Baseline characteristics

Reporting groups	
Reporting group title	Mometasone furoate nasal spray (MFNS) (50 µg spray)
Reporting group description:	
MFNS, 50 µg spray device. The dose will be as follows: for ages 5 to 11 years: one spray per nostril once daily (100 µg/day as MF) in the morning for 2 weeks and for ages 12 to 15 years: 2 sprays per nostril once daily (200 µg/day as MF) in the morning for 2 weeks.	
Reporting group title	Placebo
Reporting group description:	
Placebo Comparator: MF placebo nasal spray, administration will be as follows: for subjects ages 5 to 11 years: one spray per nostril once daily in the morning for 2 weeks and for subjects ages 12 to 15 years: 2 sprays per nostril once daily in the morning for 2 weeks.	

Reporting group values	Mometasone furoate nasal spray (MFNS) (50 µg spray)	Placebo	Total
Number of subjects	220	113	333
Age categorical			
Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	146	74	220
Adolescents (12-17 years)	74	39	113
Adults (18-64 years)	0	0	0
From 65-84 years	0	0	0
85 years and over	0	0	0
Age continuous			
Units: years			
arithmetic mean	9.7	9.8	
standard deviation	± 2.9	± 2.9	-
Gender categorical			
Units: Subjects			
Female	90	38	128
Male	130	75	205

End points

End points reporting groups

Reporting group title	Mometasone furoate nasal spray (MFNS) (50 µg spray)

Reporting group description:

MFNS, 50 µg spray device. The dose will be as follows: for ages 5 to 11 years: one spray per nostril once daily (100 µg/day as MF) in the morning for 2 weeks and for ages 12 to 15 years: 2 sprays per nostril once daily (200 µg/day as MF) in the morning for 2 weeks.

Reporting group title	Placebo

Reporting group description:

Placebo Comparator: MF placebo nasal spray, administration will be as follows: for subjects ages 5 to 11 years: one spray per nostril once daily in the morning for 2 weeks and for subjects ages 12 to 15 years: 2 sprays per nostril once daily in the morning for 2 weeks.

Primary: Change From Baseline in the Total Nasal Symptom Score at 2 Weeks

End point title	Change From Baseline in the Total Nasal Symptom Score at 2 Weeks

End point description:

Total nasal symptom score was a composite of 4 symptoms (sneezing, rhinorrhea, nasal congestion, and nasal itching), each symptom was scored on a scale of 0 = none, 1 = mild, 2 = moderate, 3 = severe. The total score ranged from 0 to 12 with higher scores reflecting more severe symptoms.

End point type	Primary

End point timeframe:

Baseline and 2 weeks (or discontinuation)

End point values	Mometasone furoate nasal spray (MFNS) (50 µg spray)	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	220	113		
Units: Scores on a scale				
least squares mean (standard error)	-3.985 (± 0.1633)	-1.9081 (± 0.2233)		

Statistical analyses

Statistical analysis title	Treatment Difference

Statistical analysis description:

Least squares mean change from baseline for Total Nasal Symptom Score at 2 Weeks for MFNS minus least squares mean change from baseline for Total Nasal Symptom Score at 2 Weeks for placebo

Comparison groups	Mometasone furoate nasal spray (MFNS) (50 µg spray) v Placebo

Number of subjects included in analysis	333
Analysis specification	Pre-specified
Analysis type	superiority[1]
P-value	< 0.0001
Method	ANCOVA
Parameter estimate	Mean difference (final values)
Point estimate	-2.0769
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.6079
upper limit	-1.5459
Variability estimate	Standard error of the mean
Dispersion value	0.2699

Notes:

[1] - An analysis of covariance (ANCOVA) method was performed for the change of total score of 4 nasal symptom scores at 2 weeks (or at the end of the study). The model included variables of baseline total nasal score as covariate, and age strata (5-11 years, 12-15 years) and treatment group as fixed effects.

Secondary: Change From Baseline in the Total Nasal Symptom Score at 1 Week

End point title	Change From Baseline in the Total Nasal Symptom Score at 1 Week

End point description:

Total nasal symptom score was a composite of 4 symptoms (sneezing, rhinorrhea, nasal congestion, and nasal itching), each symptom was scored on a scale of 0 = none, 1 = mild, 2 = moderate, 3 = severe. The total score ranged from 0 to 12 with a higher score reflecting more severe symptoms.

End point type	Secondary

End point timeframe:

Baseline and 1 week

End point values	Mometasone furoate nasal spray (MFNS) (50 µg spray)	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	219	113		
Units: Score on a scale				
least squares mean (standard error)	-2.4686 (± 0.1441)	-1.1651 (± 0.1967)		

Statistical analyses

Statistical analysis title	Treatment Difference

Statistical analysis description:

Least squares mean change from baseline for Total Nasal Symptom Score at 1 Week for MFNS minus least squares mean change from baseline for Total Nasal Symptom Score at 1 Week for placebo

Comparison groups	Placebo v Mometasone furoate nasal spray (MFNS) (50 µg spray)

Number of subjects included in analysis	332
Analysis specification	Pre-specified
Analysis type	other[2]
P-value	< 0.0001
Method	ANCOVA
Parameter estimate	Difference in the least squares means
Point estimate	-1.3035
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.7716
upper limit	-0.8355
Variability estimate	Standard error of the mean
Dispersion value	0.2379

Notes:

[2] - Change of total score of 4 nasal symptom score at Week 1, using pooled variance calculated by the ANCOVA model with baseline total score as covariate and treatment group and age stratum as fixed effects, the 2-sided 95% confidence interval of the difference (MF – MF placebo) were calculated.

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Up to 44 days

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	13.0

Reporting groups

Reporting group title	MFNS

Reporting group description:

MFNS, 50 µg spray device. The dose will be as follows: for ages 5 to 11 years: one spray per nostril once daily (100 µg/day as MF) in the morning for 2 weeks and for ages 12 to 15 years: 2 sprays per nostril once daily (200 µg/day as MF) in the morning for 2 weeks. This 44-day analysis period includes a 14-day Treatment period and a 30-day follow-up period.

Reporting group title	Placebo

Reporting group description:

Placebo Comparator: MF placebo nasal spray, administration will be as follows: for subjects ages 5 to 11 years: one spray per nostril once daily in the morning for 2 weeks and for subjects ages 12 to 15 years: 2 sprays per nostril once daily in the morning for 2 weeks. This 44-day analysis period includes a 14-day Treatment period and a 30-day Follow-up period.

Serious adverse events	MFNS	Placebo	
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 220 (0.00%)	0 / 113 (0.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	

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

Non-serious adverse events	MFNS	Placebo	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	24 / 220 (10.91%)	19 / 113 (16.81%)	
Respiratory, thoracic and mediastinal disorders			
Epistaxis			
subjects affected / exposed	13 / 220 (5.91%)	11 / 113 (9.73%)	
occurrences (all)	15	16	
Infections and infestations			
Naspharyngitis			

subjects affected / exposed occurrences (all)	11 / 220 (5.00%) 11	10 / 113 (8.85%) 10	

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