Clinical trial results:
Open label, 12-week clinical trial to assess efficacy, safety, treatment adherence and Quality of Life impact of Mometasone Furoate dry powder 400 mcg Once-daily in persistent mild-moderate asthmatic patients at least 12 years old.

Summary

EudraCT number	2014-004926-17
Trial protocol	Outside EU/EEA
Global end of trial date	01 September 2009

Results information

Result version number	v1 (current)
This version publication date	27 April 2016
First version publication date	19 July 2015

Trial information

Trial identification

Sponsor protocol code	P04879

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT00687531
WHO universal trial number (UTN)	-
Other trial identifiers	Merck Registration Number: MK-0887-125

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	01 September 2009
Is this the analysis of the primary completion data?	Yes
Primary completion date	01 September 2009
Global end of trial reached?	Yes
Global end of trial date	01 September 2009
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

Open label, 12-week clinical trial to assess efficacy, safety, treatment adherence and Quality of Life impact of Mometasone Furoate dry powder 400 mcg once-daily in persistent mild-moderate asthmatic patients at least 12 years old.

The primary endpoint was the mean change from Baseline to the study endpoint in the FEV1 (percentage change from baseline).

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.

The following additional measure(s) defined for this individual study was (were) in place for the protection of trial subjects: Participants could use salbutamol as rescue medication and were to record daily usage in a diary. Participants were to withhold salbutamol for at least 6 hours prior to spirometry.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	15 November 2006
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	Mexico: 385
Worldwide total number of subjects	385
EEA total number of subjects	0

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37	0

wk	
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	68
Adults (18-64 years)	299
From 65 to 84 years	18
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

385 participants enrolled and were screened for eligibility for treatment assignment. A total of 281 participants received at least one dose of study medication and were included in the Intention-To-Treat (ITT) Population. 104 participants did not receive treatment due to lack of compliance of Inhaled corticosteroid (ICS) Dose Reduction.

Pre-assignment period milestones

Number of subjects started	385
Number of subjects completed	281

Pre-assignment subject non-completion reasons

Reason: Number of subjects	Lack of compliance of ICS Dose Reduction: 104

Period 1

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

Arms

Arm title	Mometasone Furoate

Arm description:

Mometasone Furoate 400 mcg once daily in the evening through 12 weeks.

Arm type	Experimental
Investigational medicinal product name	Mometasone Furoate Dry Powder Inhaler
Investigational medicinal product code	
Other name	SCH 032088, MK-0887, ELOVENT® TWISTHALER®, Asmanex ®
Pharmaceutical forms	Inhalation powder
Routes of administration	Inhalation use

Dosage and administration details:

Mometasone Furoate 400 mcg once daily, in the evening through 12 weeks.

Number of subjects in period 1[1]	Mometasone Furoate
Started	281
RECEIVED TREATMENT	281
Completed	250
Not completed	31
Adverse event, non-fatal	5
Lost to follow-up	26

Notes:

[1] - The number of subjects reported to be in the baseline period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.

Justification: The worldwide number reflects the total number of participants enrolled in the study and screened for eligibility (n=385). The number of participants in the Baseline Period reflects the number of participants who received at least one dose of study medication (ITT Population) and was the primary analysis population for this study.

Baseline characteristics

Reporting groups	
Reporting group title	Mometasone Furoate
Reporting group description:	
Mometasone Furoate 400 mcg once daily in the evening through 12 weeks.	

Reporting group values	Mometasone Furoate	Total	
Number of subjects	281	281	
Age, Customized Units: participants			

Age continuous Units: years			
arithmetic mean	38.8		
standard deviation	± 26.4	-	
Gender categorical Units: Subjects			
Female	199	199	
Male	81	81	
Not Available to Report	1	1	

End points

End points reporting groups

Reporting group title	Mometasone Furoate
Reporting group description:	
Mometasone Furoate 400 mcg once daily in the evening through 12 weeks.	

Primary: Forced Expiratory Volume in 1 second (FEV1)

End point title	Forced Expiratory Volume in 1 second (FEV1)[1]
End point description:	
Spirometry was performed to measure FEV1, which is the amount of air the participant is able to exhale in 1 second. Normal values for FEV1 in healthy people depend on age and gender, but values between 80% and 120% of the normal value is considered good. Increased FEV1 indicates improvement in asthma control.	
End point type	Primary
End point timeframe:	
Day 1 and Week 12	

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 between-group statistical analyses were performed for this endpoint.

End point values	Mometasone Furoate			
Subject group type	Reporting group			
Number of subjects analysed	250			
Units: Liters				
arithmetic mean (standard deviation)				
Initial (Day 1)	2.18 (± 0.75)			
Final (Week 12)	2.6 (± 0.83)			

Statistical analyses

No statistical analyses for this end point

Secondary: Morning (AM) and Evening (PM) Peak Expiratory Flow Rate (PEFR)

End point title	Morning (AM) and Evening (PM) Peak Expiratory Flow Rate (PEFR)
End point description:	
Participants were to record their daily AM and PM PEFR values in a diary. PEFR can be measured using a peak flow meter that was given to the participant. Normal readings are based on a person's gender, age, and height. A reading of 80 to 100% of the usual or normal peak flow readings indicate that the asthma is under good control. Increased PEFR indicates improvement in asthma control.	
End point type	Secondary
End point timeframe:	
Day 1 and Week 12	

End point values	Mometasone Furoate			
Subject group type	Reporting group			
Number of subjects analysed	250			
Units: Liters/minute				
arithmetic mean (standard deviation)				
Initial AM (Day 1)	313.3 (± 111.2)			
Initial PM (Day 1)	311.12 (± 111.2)			
Final AM (Week 12)	393.3 (± 144.59)			
Final PM (Week 12)	395.09 (± 144.59)			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of items in the Asthma Quality of Life (QOL) Questionnaire and the General QOL Questionnaire that had a significant (positive) change from Baseline to endpoint

End point title	Number of items in the Asthma Quality of Life (QOL) Questionnaire and the General QOL Questionnaire that had a significant (positive) change from Baseline to endpoint

End point description:

Questionnaires consisted of items such as General Health Condition (excellent/very good/good/regular/bad), Difficulty to Breathe (always/almost always/considerable part of time/partially/few amount of time/almost never/never), General Asthma Limitations (completely/a lot/enough to be considered/regular/a few/almost nothing/nothing), etc...

The questionnaires together consisted of 44 questions, each question with categorical variables as response. A Friedman test was performed to determine the significance of change in samples from baseline to endpoint, for each question.

End point type	Secondary

End point timeframe:

Day 1 and Week 12

End point values	Mometasone Furoate			
Subject group type	Reporting group			
Number of subjects analysed	250			
Units: questions				
number (not applicable)	41			

Statistical analyses

No statistical analyses for this end point

Secondary: Morning and evening asthma symptoms based on a 3 point scale (4 individual symptoms) and 24 points (summed)

End point title	Morning and evening asthma symptoms based on a 3 point scale (4 individual symptoms) and 24 points (summed)

End point description:

The symptoms of cough, chest tightness, wheezing, and shortness of breath were each to be graded on a scale of 0 to 3 with 0 being no symptoms present and 3 being very marked symptoms which was disturbing most of the time. Scores were to have been recorded at 12AM and 12PM for a total of 24 points summed.

End point type	Secondary

End point timeframe:

Day 1 and Week 12

End point values	Mometasone Furoate			
Subject group type	Reporting group			
Number of subjects analysed	0[2]			
Units: score on a scale				
arithmetic mean (standard deviation)	()			

Notes:

[2] - This analysis was not performed due to missing data at the sites.

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Nocturnal Awakenings

End point title	Number of Nocturnal Awakenings

End point description:

Participants were to record the number of Nocturnal Awakenings with/without the use of rescue medication in each episode in the diary card since the screening visit.

End point type	Secondary

End point timeframe:

Day 1 and Week 12

End point values	Mometasone Furoate			
Subject group type	Reporting group			
Number of subjects analysed	0[3]			
Units: Awakenings				
number (not applicable)				

Notes:

[3] - This analysis was not performed due to missing data at the sites.

Statistical analyses

No statistical analyses for this end point

Secondary: Number of puffs of salbutamol used daily

End point title	Number of puffs of salbutamol used daily

End point description:

Participants recorded daily rescue medication (salbutamol) use in their daily diaries.

End point type	Secondary

End point timeframe:

Day 1 and Week 12

End point values	Mometasone Furoate			
Subject group type	Reporting group			
Number of subjects analysed	0[4]			
Units: Puffs				
number (not applicable)				

Notes:

[4] - This analysis was not performed due to missing data at the sites.

Statistical analyses

No statistical analyses for this end point

Secondary: Investigator’s assessment of Response to Therapy based on a 5-point scale

End point title	Investigator’s assessment of Response to Therapy based on a 5-point scale

End point description:

The investigator will assess the subject's response to therapy by interviewing the subject and comparing their current level of symptoms with those noted at Baseline. A scale of 1 to 5 was to be used: 1 = much improved (AM and PM symptom severity and frequency improve >75% from baseline), 2= Improved (AM and PM symptom severity and frequency improve between 50-75% , 3 = No change (AM and PM asthma symptoms persists at the same severity and frequency from baseline), 4 = Worse (AM and PM asthma symptoms severity and frequency got worse between 50-75% from baseline), or 5 = Much worse (AM and PM asthma symptoms severity and frequency got worse more than 75% from baseline).

End point type	Secondary

End point timeframe:

Baseline, Week 12

End point values	Mometasone Furoate			
Subject group type	Reporting group			
Number of subjects analysed	0[5]			
Units: score on a scale				
arithmetic mean (standard deviation)	()			

Notes:

[5] - This analysis was not performed due to missing data at the sites.

Statistical analyses

No statistical analyses for this end point

Secondary: Patient's assessment of Response to Therapy based on a 5-point scale

End point title	Patient's assessment of Response to Therapy based on a 5-point scale

End point description:

Participants were to assess their response to therapy at the Final Visit (week 12) by comparing their current level of symptoms with those noted at Baseline.
A scale of 1 to 5 was to be used: 1 = much improved (AM and PM symptom severity and frequency improve >75% from baseline), 2= Improved (AM and PM symptom severity and frequency improve between 50-75% , 3 = No change (AM and PM asthma symptoms persists at the same severity and frequency from baseline), 4 = Worse (AM and PM asthma symptoms severity and frequency got worse between 50-75% from baseline), or 5 = Much worse (AM and PM asthma symptoms severity and frequency got worse more than 75% from baseline).

End point type	Secondary

End point timeframe:

Baseline, Week 12

End point values	Mometasone Furoate			
Subject group type	Reporting group			
Number of subjects analysed	0[6]			
Units: score on a scale				
arithmetic mean (standard deviation)	()			

Notes:

[6] - This analysis was not performed due to missing data at the sites.

Statistical analyses

No statistical analyses for this end point

Secondary: Number of participants with one or more mild, moderate or severe asthma exacerbations

End point title	Number of participants with one or more mild, moderate or severe asthma exacerbations

End point description:

Exacerbation severity was to be characterized based on exacerbation classification from the Global Initiative for Asthma (GINA) workshop 2005 and the National Heart Lung and Blood Institute (NHLBI) asthma guidelines.

End point type	Secondary

End point timeframe:

Day 1 and Week 12

End point values	Mometasone Furoate			
Subject group type	Reporting group			
Number of subjects analysed	0[7]			
Units: participants				
number (not applicable)				

Notes:

[7] - This analysis was not performed due to missing data at the sites.

Statistical analyses

No statistical analyses for this end point

Secondary: Number of participants who adhered to treatment

End point title	Number of participants who adhered to treatment

End point description:

The compliance was measured via medication consumption. In the end of the last week of study (Week 12), a review of the remaining study drug in the initial prescribed Twisthaler device was done. A Twisthaler reading of 0 indicates no study drug left and full compliance.

End point type	Secondary

End point timeframe:

Day 1 to Week 12

End point values	Mometasone Furoate			
Subject group type	Reporting group			
Number of subjects analysed	250			
Units: participants				
number (not applicable)				
Twisthaler reading 0 (zero)	196			
Twisthaler reading above zero	29			
Not specified	25			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Participants with Use of Rescue Medication in each episode

End point title	Number of Participants with Use of Rescue Medication in each episode

End point description:

Participants were to record the use of rescue medication in each episode in the diary card since the screening visit.

End point type	Secondary

End point timeframe:

Day 1 and Week 12

End point values	Mometasone Furoate			
Subject group type	Reporting group			
Number of subjects analysed	0[8]			
Units: Participants				
arithmetic mean (standard deviation)	()			

Notes:

[8] - This analysis was not performed due to missing data at the sites.

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information[1]

Timeframe for reporting adverse events:

From Screening visit up to 30 days post study completion/discontinuation (up to 16 weeks)

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	12

Reporting groups

Reporting group title	Mometasone Furoate

Reporting group description:

Mometasone Furoate 400 mcg once daily in the evening through 12 weeks.

Serious adverse events	Mometasone Furoate		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 281 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events			

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

Non-serious adverse events	Mometasone Furoate		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 281 (0.00%)		

Notes:

[1] - There are no non-serious adverse events recorded for these results. It is expected that there will be at least one non-serious adverse event reported.
Justification: There were no treatment-emergent adverse events reported on study.

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
01 September 2009	The trial was terminated for enrollment reasons.	-

Notes:

Limitations and caveats

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

Protocol deviations may have occurred that resulted in quality issues associated with reporting of the data.

Notes: