Clinical trial results:
A multicenter, randomized, double-blind, placebo and active controlled parallel-group trial to assess the efficacy and safety of the fixed combination medicinal product Mometasone furoate + Azelastine hydrochloride nasal spray (50 + 140 mcg) in the treatment of seasonal allergic rhinitis

Summary

EudraCT number	2021-004050-31
Trial protocol	DE BG PL
Global end of trial date	20 June 2023

Results information

Result version number	v1 (current)
This version publication date	05 January 2024
First version publication date	05 January 2024

Trial information

Trial identification

Sponsor protocol code	SAN-0677

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT05590598
WHO universal trial number (UTN)	-
Other trial identifiers	CRO code number: CLK21001

Notes:

Sponsors

Sponsor organisation name	Lek Pharmaceuticals d.d.
Sponsor organisation address	Verovškova ulica 57, Ljubljana, Slovenia,
Public contact	Group Head Clinical Development, Lek Pharmaceuticals d.d., +386 15802800, aleksander.bajc@sandoz.com
Scientific contact	Group Head Clinical Development, Lek Pharmaceuticals d.d., +386 15802800, aleksander.bajc@sandoz.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	Yes
EMA paediatric investigation plan number(s)	EMEA-003122-PIP01-21
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	13 November 2023
Is this the analysis of the primary completion data?	Yes
Primary completion date	20 June 2023
Global end of trial reached?	Yes
Global end of trial date	20 June 2023
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The primary objective of the present trial is to show the benefit of the treatment on nasal symptoms in patients with seasonal allergic rhinitis with the fixed combination medicinal product (test; MomAze nasal spray) Mometasone + Azelastine nasal spray (50 mcg / 140 mcg per actuation) in comparison to the treatment with the individual medicinal products Mometasone furoate nasal spray (50 mcg per actuation) and Azelastine hydrochloride nasal spray (140 mcg per actuation) (comparators; Mometasone, Azelastine).

Protection of trial subjects:

Treated in routine care.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	04 April 2022
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	Poland: 69
Country: Number of subjects enrolled	Bulgaria: 261
Country: Number of subjects enrolled	Germany: 89
Country: Number of subjects enrolled	Moldova, Republic of: 249
Worldwide total number of subjects	668
EEA total number of subjects	419

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)	64
Adults (18-64 years)	603
From 65 to 84 years	1
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details: -

Pre-assignment period milestones

Number of subjects started	1184[1]
Number of subjects completed	668

Pre-assignment subject non-completion reasons

Reason: Number of subjects	Screen failure: 498
Reason: Number of subjects	Consent withdrawn by subject: 9
Reason: Number of subjects	Pregnancy: 3
Reason: Number of subjects	Adverse event, non-fatal: 2
Reason: Number of subjects	Lost to Follow-up: 1
Reason: Number of subjects	Non-compliance: 1
Reason: Number of subjects	Refused treatment: 1
Reason: Number of subjects	Physician decision: 1

Notes:

[1] - The number of subjects reported to have started the pre-assignment period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.
Justification: They were screening failures, so not all subjects included in pre-assignment period were enrolled in the trial.

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, Carer, Assessor

Arms

Are arms mutually exclusive?	Yes
Arm title	Mometasone + Azelastine

Arm description: -

Arm type	Experimental
Investigational medicinal product name	Mometasone + Azelastine (50 + 140 mcg per actuation)
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Nasal spray, suspension
Routes of administration	Nasal use

Dosage and administration details:

Dosage: 50 mcg mometasone furoate and 140 mcg azelastine hydrochloride per actuation
1 actuation in each nostril in the morning and 1 actuation in each nostril in the evening for 14 days

Arm title	Mometasone furoate nasal spray

Arm description: -

Arm type	Active comparator

Investigational medicinal product name	Mometasone furoate nasal spray (50 mcg per actuation)
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Nasal spray, suspension
Routes of administration	Nasal use

Dosage and administration details:

Dosage: 50 mcg mometasone furoate per actuation
1 actuation in each nostril in the morning and 1 actuation in each nostril in the evening for 14 days

Arm title	Azelastine hydrochloride nasal spray

Arm description: -

Arm type	Active comparator
Investigational medicinal product name	Azelastine hydrochloride nasal spray (140 mcg per actuation)
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Nasal spray, suspension
Routes of administration	Nasal use

Dosage and administration details:

Dosage: 140 mcg azelastine hydrochloride per actuation
1 actuation in each nostril in the morning and 1 actuation in each nostril in the evening for 14 days

Arm title	Placebo nasal spray

Arm description: -

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

Dosage and administration details:

1 actuation in each nostril mornings and evenings for 14 days

Number of subjects in period 1	Mometasone + Azelastine	Mometasone furoate nasal spray	Azelastine hydrochloride nasal spray
Started	194	189	187
Completed	192	187	184
Not completed	2	2	3
Consent withdrawn by subject	2	1	-
Physician decision	-	-	-
Adverse event, non-fatal	-	1	2
Refused	-	-	1

Number of subjects in period 1	Placebo nasal spray
Started	98
Completed	96
Not completed	2
Consent withdrawn by subject	-
Physician decision	2

Adverse event, non-fatal	-
Refused	-

Baseline characteristics

Reporting groups	
Reporting group title	Treatment period
Reporting group description: -	

Reporting group values	Treatment period	Total	
Number of subjects	668	668	
Age categorical Units: Subjects			
Adolescents (12-17 years)	64	64	
Adults (18-64 years)	603	603	
From 65-84 years	1	1	
Age continuous Units: years			
arithmetic mean	35.3		
standard deviation	± 12.8	-	
Gender categorical Units: Subjects			
Female	341	341	
Male	327	327	

Subject analysis sets	
Subject analysis set title	Safety Set
Subject analysis set type	Safety analysis
Subject analysis set description: All randomized patients who received at least one dose of the trial medication.	
Subject analysis set title	Full-Analysis Set
Subject analysis set type	Full analysis
Subject analysis set description: All randomized patients who received at least one dose of the trial medication and who have at least one post-baseline assessment of TNSS during the double-blind treatment period.	

Reporting group values	Safety Set	Full-Analysis Set	
Number of subjects	668	666	
Age categorical Units: Subjects			
Adolescents (12-17 years)	64		
Adults (18-64 years)	603		
From 65-84 years	1		
Age continuous Units: years			
arithmetic mean	35.3		
standard deviation	± 12.8	±	
Gender categorical Units: Subjects			
Female	341		
Male	327		

End points

End points reporting groups

Reporting group title	Mometasone + Azelastine
Reporting group description: -	
Reporting group title	Mometasone furoate nasal spray
Reporting group description: -	
Reporting group title	Azelastine hydrochloride nasal spray
Reporting group description: -	
Reporting group title	Placebo nasal spray
Reporting group description: -	
Subject analysis set title	Safety Set
Subject analysis set type	Safety analysis
Subject analysis set description:	
All randomized patients who received at least one dose of the trial medication.	
Subject analysis set title	Full-Analysis Set
Subject analysis set type	Full analysis
Subject analysis set description:	
All randomized patients who received at least one dose of the trial medication and who have at least one post-baseline assessment of TNSS during the double-blind treatment period.	

Primary: Primary endpoint

End point title	Primary endpoint
End point description:	
End point type	Primary
End point timeframe:	
First 7 days of treatment.	

End point values	Mometasone + Azelastine	Mometasone furoate nasal spray	Azelastine hydrochloride nasal spray	Placebo nasal spray
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	194	188	187	97
Units: Total Nasal Symptom Score (TNSS)	194	188	187	97

End point values	Full-Analysis Set			
Subject group type	Subject analysis set			
Number of subjects analysed	666			
Units: Total Nasal Symptom Score (TNSS)	666			

Statistical analyses

Statistical analysis title	Test vs Comparator 1

Statistical analysis description:

Change from baseline in mean TNSS over 7 days treatment period.

Comparison groups	Mometasone + Azelastine v Mometasone furoate nasal spray
Number of subjects included in analysis	382
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2247
Method	ANCOVA

Statistical analysis title	Test vs Comparator 2
Comparison groups	Mometasone + Azelastine v Azelastine hydrochloride nasal spray
Number of subjects included in analysis	381
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1139
Method	ANCOVA

Statistical analysis title	Test vs Placebo
Comparison groups	Mometasone + Azelastine v Placebo nasal spray
Number of subjects included in analysis	291
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0179
Method	ANCOVA

Statistical analysis title	Comparator 1 vs Placebo
Comparison groups	Mometasone furoate nasal spray v Placebo nasal spray
Number of subjects included in analysis	285
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0009
Method	ANCOVA

Statistical analysis title	Comparator 2 vs Placebo
Comparison groups	Azelastine hydrochloride nasal spray v Placebo nasal spray

Number of subjects included in analysis	284
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2877
Method	ANCOVA

Adverse events

Adverse events information	
Timeframe for reporting adverse events:	
From randomization until the last study visit (day 16 (+1))	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	25.0

Reporting groups	
Reporting group title	Mometasone + Azelastine
Reporting group description: -	
Reporting group title	Mometasone furoate nasal spray
Reporting group description: -	
Reporting group title	Azelastine hydrochloride nasal spray
Reporting group description: -	
Reporting group title	Placebo nasal spray
Reporting group description: -	

Serious adverse events	Mometasone + Azelastine	Mometasone furoate nasal spray	Azelastine hydrochloride nasal spray
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	0 / 187 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Surgical and medical procedures			
Abortion induced			
subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Reproductive system and breast disorders			
Intermenstrual bleeding	Additional description: Metrorrhagia due to medication abortion		
subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Placebo nasal spray		
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 98 (1.02%)		
number of deaths (all causes)	0		

number of deaths resulting from adverse events	0		
Surgical and medical procedures			
Abortion induced			
subjects affected / exposed	1 / 98 (1.02%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Reproductive system and breast disorders			
Intermenstrual bleeding	Additional description: Metrorrhagia due to medication abortion		
subjects affected / exposed	1 / 98 (1.02%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

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

Non-serious adverse events	Mometasone + Azelastine	Mometasone furoate nasal spray	Azelastine hydrochloride nasal spray
Total subjects affected by non-serious adverse events			
subjects affected / exposed	14 / 194 (7.22%)	8 / 189 (4.23%)	8 / 187 (4.28%)
Investigations			
Aspartate aminotransferase increased			
subjects affected / exposed	1 / 194 (0.52%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	1	0	0
Alanine aminotransferase increased			
subjects affected / exposed	0 / 194 (0.00%)	1 / 189 (0.53%)	0 / 187 (0.00%)
occurrences (all)	0	1	0
Human chorionic gonadotropin increased			
subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	1 / 187 (0.53%)
occurrences (all)	0	0	1
Red blood cell sedimentation rate increased			
subjects affected / exposed	0 / 194 (0.00%)	1 / 189 (0.53%)	0 / 187 (0.00%)
occurrences (all)	0	1	0
Injury, poisoning and procedural complications			
Product use complaint			

subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	1 / 187 (0.53%)
occurrences (all)	0	0	1
Wound haemorrhage			
subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	1 / 187 (0.53%)
occurrences (all)	0	0	2
Nervous system disorders			
Dysgeusia			
subjects affected / exposed	4 / 194 (2.06%)	1 / 189 (0.53%)	0 / 187 (0.00%)
occurrences (all)	5	1	0
Dizziness			
subjects affected / exposed	0 / 194 (0.00%)	1 / 189 (0.53%)	0 / 187 (0.00%)
occurrences (all)	0	1	0
Headache			
subjects affected / exposed	0 / 194 (0.00%)	1 / 189 (0.53%)	0 / 187 (0.00%)
occurrences (all)	0	1	0
Migraine			
subjects affected / exposed	1 / 194 (0.52%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	1	0	0
Taste disorder			
subjects affected / exposed	1 / 194 (0.52%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	1	0	0
General disorders and administration site conditions			
Condition aggravated			
subjects affected / exposed	2 / 194 (1.03%)	0 / 189 (0.00%)	1 / 187 (0.53%)
occurrences (all)	2	0	1
Administration site wound			
subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	1 / 187 (0.53%)
occurrences (all)	0	0	2
Asthenia			
subjects affected / exposed	0 / 194 (0.00%)	1 / 189 (0.53%)	0 / 187 (0.00%)
occurrences (all)	0	1	0
Influenza like illness			
subjects affected / exposed	1 / 194 (0.52%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	1	0	0
Pyrexia			

subjects affected / exposed	1 / 194 (0.52%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	1	0	0
Gastrointestinal disorders			
Enterocolitis			
subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	1 / 187 (0.53%)
occurrences (all)	0	0	1
Gastritis			
subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	1 / 187 (0.53%)
occurrences (all)	0	0	1
Nausea			
subjects affected / exposed	1 / 194 (0.52%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	1	0	0
Toothache			
subjects affected / exposed	1 / 194 (0.52%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	1	0	0
Respiratory, thoracic and mediastinal disorders			
Epistaxis			
subjects affected / exposed	1 / 194 (0.52%)	1 / 189 (0.53%)	2 / 187 (1.07%)
occurrences (all)	1	1	2
Nasal crusting			
subjects affected / exposed	0 / 194 (0.00%)	1 / 189 (0.53%)	1 / 187 (0.53%)
occurrences (all)	0	1	2
Rhinalgia			
subjects affected / exposed	1 / 194 (0.52%)	0 / 189 (0.00%)	1 / 187 (0.53%)
occurrences (all)	2	0	1
Asthma			
subjects affected / exposed	0 / 194 (0.00%)	1 / 189 (0.53%)	0 / 187 (0.00%)
occurrences (all)	0	1	0
Cough			
subjects affected / exposed	1 / 194 (0.52%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	1	0	0
Increased upper airway secretion			
subjects affected / exposed	1 / 194 (0.52%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	3	0	0
Nasal discomfort			

subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	1 / 187 (0.53%)
occurrences (all)	0	0	1
Nasal dryness			
subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	0	0	0
Skin and subcutaneous tissue disorders			
Pruritus allergic			
subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	0	0	0
Solar dermatitis			
subjects affected / exposed	0 / 194 (0.00%)	1 / 189 (0.53%)	0 / 187 (0.00%)
occurrences (all)	0	1	0
Infections and infestations			
COVID-19			
subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	1 / 187 (0.53%)
occurrences (all)	0	0	1
Bronchitis			
subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	0	0	0
Influenza			
subjects affected / exposed	0 / 194 (0.00%)	1 / 189 (0.53%)	0 / 187 (0.00%)
occurrences (all)	0	1	0
Laryngitis			
subjects affected / exposed	1 / 194 (0.52%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	1	0	0
Rhinitis			
subjects affected / exposed	1 / 194 (0.52%)	0 / 189 (0.00%)	0 / 187 (0.00%)
occurrences (all)	1	0	0
Upper respiratory tract infection			
subjects affected / exposed	0 / 194 (0.00%)	0 / 189 (0.00%)	1 / 187 (0.53%)
occurrences (all)	0	0	1

Non-serious adverse events	Placebo nasal spray		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	6 / 98 (6.12%)		
Investigations			

Aspartate aminotransferase increased			
subjects affected / exposed	1 / 98 (1.02%)		
occurrences (all)	1		
Alanine aminotransferase increased			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Human chorionic gonadotropin increased			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Red blood cell sedimentation rate increased			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Injury, poisoning and procedural complications			
Product use complaint			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Wound haemorrhage			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Nervous system disorders			
Dysgeusia			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Dizziness			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Headache			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Migraine			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Taste disorder			

subjects affected / exposed occurrences (all)	0 / 98 (0.00%) 0		
General disorders and administration site conditions Condition aggravated subjects affected / exposed occurrences (all) Administration site wound subjects affected / exposed occurrences (all) Asthenia subjects affected / exposed occurrences (all) Influenza like illness subjects affected / exposed occurrences (all) Pyrexia subjects affected / exposed occurrences (all)	 0 / 98 (0.00%) 0 0 / 98 (0.00%) 0 0 / 98 (0.00%) 0 0 / 98 (0.00%) 0 0 / 98 (0.00%) 0		
Gastrointestinal disorders Enterocolitis subjects affected / exposed occurrences (all) Gastritis subjects affected / exposed occurrences (all) Nausea subjects affected / exposed occurrences (all) Toothache subjects affected / exposed occurrences (all)	 0 / 98 (0.00%) 0 0 / 98 (0.00%) 0 0 / 98 (0.00%) 0 0 / 98 (0.00%) 0		
Respiratory, thoracic and mediastinal disorders Epistaxis subjects affected / exposed occurrences (all) Nasal crusting	 1 / 98 (1.02%) 2 		

subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Rhinalgia			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Asthma			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Cough			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Increased upper airway secretion			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Nasal discomfort			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Nasal dryness			
subjects affected / exposed	1 / 98 (1.02%)		
occurrences (all)	1		
Skin and subcutaneous tissue disorders			
Pruritus allergic			
subjects affected / exposed	1 / 98 (1.02%)		
occurrences (all)	1		
Solar dermatitis			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Infections and infestations			
COVID-19			
subjects affected / exposed	1 / 98 (1.02%)		
occurrences (all)	1		
Bronchitis			
subjects affected / exposed	1 / 98 (1.02%)		
occurrences (all)	1		
Influenza			

subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Laryngitis			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Rhinitis			
subjects affected / exposed	0 / 98 (0.00%)		
occurrences (all)	0		
Upper respiratory tract infection			
subjects affected / exposed	0 / 98 (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