



Clinical trial results:

Efficacy and safety of Salmeterol/Fluticasone DPI HEXAL versus Seretide™ Accuhaler™ in adolescent and adult patients with moderate-to-severe persistent asthma: A 12-week, multicenter, randomized, double-blind, double-dummy, parallel group study

Summary

| | |
|--------------------------|------------------|
| EudraCT number | 2007-005620-32 |
| Trial protocol | HU LT PL |
| Global end of trial date | 22 February 2010 |

Results information

| | |
|--------------------------------|---|
| Result version number | v2 (current) |
| This version publication date | 24 March 2016 |
| First version publication date | 05 August 2015 |
| Version creation reason | <ul style="list-style-type: none">• Correction of full data set Information about Ariticel 46 was wrong |

Trial information

Trial identification

| | |
|-----------------------|---------------|
| Sponsor protocol code | 2006-56-DPI-1 |
|-----------------------|---------------|

Additional study identifiers

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

Notes:

Sponsors

| | |
|------------------------------|--|
| Sponsor organisation name | HEXAL AG |
| Sponsor organisation address | Industriestraße 25, Holzkirchen, Germany, 83607 |
| Public contact | Head of Clinical Research Department, Hexal AG, 0049 80249080, |
| Scientific contact | Head of Clinical Research Department, Hexal AG, 0049 80249080, |

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 | 10 November 2010 |
| Is this the analysis of the primary completion data? | Yes |
| Primary completion date | 22 February 2010 |
| Global end of trial reached? | Yes |
| Global end of trial date | 22 February 2010 |
| Was the trial ended prematurely? | No |

Notes:

General information about the trial

Main objective of the trial:

The objective of this study was to evaluate the long-term efficacy and safety of Salmeterol/Fluticasone DPI HEXAL compared to SeretideTM AccuhalerTM in adolescent and adult patients suffering from moderate-to-severe persistent asthma.

Protection of trial subjects:

Safety assessments included adverse events (AEs), physical examination, ECG, vital signs and clinical laboratory data. This study was conducted in accordance with International Conference on Harmonisation of Good Clinical Practice, the principles of the Declaration of Helsinki, as well as other applicable local ethical and legal requirements.

Background therapy:

-

Evidence for comparator: -

| | |
|---|--------------|
| Actual start date of recruitment | 14 July 2009 |
| 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 | Hungary: 42 |
| Country: Number of subjects enrolled | Lithuania: 37 |
| Country: Number of subjects enrolled | Poland: 156 |
| Country: Number of subjects enrolled | Romania: 127 |
| Country: Number of subjects enrolled | Ukraine: 193 |
| Worldwide total number of subjects | 555 |
| EEA total number of subjects | 362 |

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) | 48 |
| Adults (18-64 years) | 506 |
| From 65 to 84 years | 1 |
| 85 years and over | 0 |

Subject disposition

Recruitment

Recruitment details:

A 12-week, multicenter, randomized, double-blind, double-dummy, parallel group study in adolescent and adult patients with moderate-to-severe persistent asthma

Pre-assignment

Screening details:

A total number of 592 patients were screened and 555 patients were randomized. The study consisted of a 2-week run-in period and a 12-week blinded treatment period (14 weeks in total). The screening visit (Visit -1) was followed by a 2-week run-in period during which all asthma treatments except reliever medication were to be stopped.

Pre-assignment period milestones

| | |
|------------------------------|--------------------|
| Number of subjects started | 592 ^[1] |
| Number of subjects completed | 555 |

Pre-assignment subject non-completion reasons

| | |
|----------------------------|-------------------------------------|
| Reason: Number of subjects | Adverse event, non-fatal: 2 |
| Reason: Number of subjects | Adverse event, serious non-fatal: 1 |
| Reason: Number of subjects | Consent withdrawn by subject: 6 |
| Reason: Number of subjects | Pregnancy: 2 |
| Reason: Number of subjects | Protocol deviation: 1 |
| Reason: Number of subjects | Lost to follow-up: 1 |
| Reason: Number of subjects | Ineligibility: 23 |
| Reason: Number of subjects | Other: 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: 37 Patients dropped out according to protocol

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 | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) |
|------------------|---|

Arm description: -

| | |
|--|----------------------------------|
| Arm type | Experimental |
| Investigational medicinal product name | Salmeterol/Fluticasone DPI HEXAL |
| Investigational medicinal product code | |
| Other name | NA |
| Pharmaceutical forms | Pressurised inhalation |
| Routes of administration | Inhalation use |

Dosage and administration details:

Salmeterol/Fluticasone DPI HEXAL (50 µg salmeterol/100 µg fluticasone per actuation), one actuation two times per day

| | |
|--|------------------------|
| Arm title | Seretide 100 Accuhaler |
| Arm description: - | |
| Arm type | Active comparator |
| Investigational medicinal product name | Seretide 100 Accuhaler |
| Investigational medicinal product code | |
| Other name | NA |
| Pharmaceutical forms | Pressurised inhalation |
| Routes of administration | Inhalation use |

Dosage and administration details:

Seretide 100 Accuhaler (50 µg salmeterol/100 µg fluticasone per actuation), one actuation two times per day

| | |
|--|---|
| Arm title | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) |
| Arm description: - | |
| Arm type | Experimental |
| Investigational medicinal product name | Salmeterol/Fluticasone DPI HEXAL |
| Investigational medicinal product code | |
| Other name | NA |
| Pharmaceutical forms | Pressurised inhalation |
| Routes of administration | Inhalation use |

Dosage and administration details:

Salmeterol/Fluticasone DPI HEXAL (50 µg salmeterol/500 µg fluticasone per actuation), one actuation two times per day

| | |
|--|------------------------|
| Arm title | Seretide 500 Accuhaler |
| Arm description: - | |
| Arm type | Active comparator |
| Investigational medicinal product name | Seretide 500 Accuhaler |
| Investigational medicinal product code | |
| Other name | NA |
| Pharmaceutical forms | Pressurised inhalation |
| Routes of administration | Inhalation use |

Dosage and administration details:

Seretide 500 Accuhaler (50 µg salmeterol/500 µg fluticasone per actuation), one actuation two times per day

| Number of subjects in period 1 | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) | Seretide 100 Accuhaler | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) |
|---------------------------------------|---|------------------------|---|
| Started | 139 | 137 | 136 |
| Completed | 136 | 131 | 128 |
| Not completed | 3 | 6 | 8 |
| Consent withdrawn by subject | 1 | 1 | 3 |
| The blind was broken | - | - | 2 |
| Adverse event, non-fatal | 1 | 1 | 1 |
| Lost to follow-up | 1 | 4 | - |
| Protocol deviation | - | - | 2 |

| | |
|---------------------------------------|------------------------|
| Number of subjects in period 1 | Seretide 500 Accuhaler |
|---------------------------------------|------------------------|

| | |
|------------------------------|-----|
| Started | 143 |
| Completed | 138 |
| Not completed | 5 |
| Consent withdrawn by subject | 2 |
| The blind was broken | - |
| Adverse event, non-fatal | 1 |
| Lost to follow-up | 1 |
| Protocol deviation | 1 |

Baseline characteristics

Reporting groups

| | |
|--------------------------------|---|
| Reporting group title | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) |
| Reporting group description: - | |
| Reporting group title | Seretide 100 Accuhaler |
| Reporting group description: - | |
| Reporting group title | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) |
| Reporting group description: - | |
| Reporting group title | Seretide 500 Accuhaler |
| Reporting group description: - | |

| Reporting group values | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) | Seretide 100 Accuhaler | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) |
|--|---|------------------------|---|
| Number of subjects | 139 | 137 | 136 |
| Age Categorical | | | |
| Age Categorical Characteristic | | | |
| Units: Subjects | | | |
| In Utero | 0 | 0 | 0 |
| Preterm newborn- gestational age < 37 wk | 0 | 0 | 0 |
| Newborns (0-27days) | 0 | 0 | 0 |
| Infants and toddlers (28days – 23months) | 0 | 0 | 0 |
| Children (2-11 years) | 0 | 0 | 0 |
| Adolescents (12-17 year) | 10 | 12 | 14 |
| From 18 - 64 years | 129 | 125 | 122 |
| From 65 – 84 years | 0 | 0 | 0 |
| Over 85 years | 0 | 0 | 0 |
| Age Continuous | | | |
| Age Continuous Characteristic | | | |
| Units: Years | | | |
| arithmetic mean | 45.9 | 45.5 | 43.8 |
| standard deviation | ± 14.9 | ± 14.4 | ± 14.9 |
| Gender Categorical | | | |
| Gender Categorical Characteristic | | | |
| Units: Subjects | | | |
| Female | 92 | 77 | 83 |
| Male | 47 | 60 | 53 |

| Reporting group values | Seretide 500 Accuhaler | Total | |
|--|------------------------|-------|--|
| Number of subjects | 143 | 555 | |
| Age Categorical | | | |
| Age Categorical Characteristic | | | |
| Units: Subjects | | | |
| In Utero | 0 | 0 | |
| Preterm newborn- gestational age < 37 wk | 0 | 0 | |
| Newborns (0-27days) | 0 | 0 | |

| | | | |
|--|--------|-----|--|
| Infants and toddlers (28days – 23months) | 0 | 0 | |
| Children (2-11 years) | 0 | 0 | |
| Adolescents (12-17 year) | 12 | 48 | |
| From 18 - 64 years | 130 | 506 | |
| From 65 – 84 years | 1 | 1 | |
| Over 85 years | 0 | 0 | |
| Age Continuous | | | |
| Age Continuous Characteristic | | | |
| Units: Years | | | |
| arithmetic mean | 45.6 | | |
| standard deviation | ± 14.2 | - | |
| Gender Categorical | | | |
| Gender Categorical Characteristic | | | |
| Units: Subjects | | | |
| Female | 76 | 328 | |
| Male | 67 | 227 | |

End points

End points reporting groups

| | |
|--|--|
| Reporting group title | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) |
| Reporting group description: - | |
| Reporting group title | Seretide 100 Accuhaler |
| Reporting group description: - | |
| Reporting group title | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) |
| Reporting group description: - | |
| Reporting group title | Seretide 500 Accuhaler |
| Reporting group description: - | |
| Subject analysis set title | Seretide 100 Accuhaler - Safety Set |
| Subject analysis set type | Safety analysis |
| Subject analysis set description: | |
| The analysis set consists of all patients who were randomized and received at least one dose of one IP. | |
| Subject analysis set title | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) - Safety Set |
| Subject analysis set type | Safety analysis |
| Subject analysis set description: | |
| The analysis set consists of all patients who were randomized and received at least one dose of one IP. | |
| Subject analysis set title | Seretide 500 Accuhaler - Safety Set |
| Subject analysis set type | Safety analysis |
| Subject analysis set description: | |
| The analysis set consists of all patients who were randomized and received at least one dose of one IP. | |
| Subject analysis set title | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) - Safety Set |
| Subject analysis set type | Safety analysis |
| Subject analysis set description: | |
| The analysis set consists of all patients who were randomized and received at least one dose of one IP. | |
| Subject analysis set title | Seretide 500 Accuhaler - FAS |
| Subject analysis set type | Full analysis |
| Subject analysis set description: | |
| The analysis set consists of all patients who were included in the SS and had clinic FEV1 data after the baseline visit | |
| Subject analysis set title | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) - FAS |
| Subject analysis set type | Full analysis |
| Subject analysis set description: | |
| The analysis set consists of all patients who were included in the SS and had clinic FEV1 data after the baseline visit | |
| Subject analysis set title | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) - FAS |
| Subject analysis set type | Full analysis |
| Subject analysis set description: | |
| The analysis set consists of all patients who were included in the SS and had clinic FEV1 data after the baseline visit | |
| Subject analysis set title | Seretide 100 Accuhaler - FAS |
| Subject analysis set type | Full analysis |
| Subject analysis set description: | |
| The analysis set consists of all patients who were included in the SS and had clinic FEV1 data after the baseline visit | |
| Subject analysis set title | Seretide 100 Accuhaler - PPS |
| Subject analysis set type | Per protocol |
| Subject analysis set description: | |
| The analysis set consists of all patients who were included in the FAS and completed the study and had no major protocol violations. | |

| | |
|---|---|
| Subject analysis set title | Seretide 500 Accuhaler - PPS |
| Subject analysis set type | Per protocol |
| Subject analysis set description: The analysis set consists of all patients who were included in the FAS and completed the study and had no major protocol violations. | |
| Subject analysis set title | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) - PPS |
| Subject analysis set type | Per protocol |
| Subject analysis set description: The analysis set consists of all patients who were included in the FAS and completed the study and had no major protocol violations. | |
| Subject analysis set title | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) - PPS |
| Subject analysis set type | Per protocol |
| Subject analysis set description: The analysis set consists of all patients who were included in the FAS and completed the study and had no major protocol violations. | |

Primary: Change in FEV1 from baseline to the end of treatment period

| | |
|--|---|
| End point title | Change in FEV1 from baseline to the end of treatment period |
| End point description: The absolute change in FEV1 from baseline at the end of the 12-week treatment period. Missing values of the primary endpoint 'absolute change in FEV1' were replaced using the last-value carried-forward strategy as follows: in case if both pre-dose FEV1 values was missing at Visit 6/ET, the last value observed under treatment before Visit 6/ET was imputed as Visit 6/ET value. If there is no such last value under treatment, no imputation was made. If there is only one assessment of FEV1 pre-dose values at Visit 0 or Visit 6/ET is done, the available value was used for analysis. | |
| End point type | Primary |
| End point timeframe: End of 12 weeks treatment period | |

| End point values | Seretide 100 Accuhaler - PPS | Seretide 500 Accuhaler - PPS | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) - PPS | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) - PPS |
|--------------------------------------|------------------------------|------------------------------|---|---|
| Subject group type | Subject analysis set | Subject analysis set | Subject analysis set | Subject analysis set |
| Number of subjects analysed | 129 | 134 | 127 | 134 |
| Units: Litre | | | | |
| arithmetic mean (standard deviation) | | | | |
| Baseline, FEV1 | 2.097 (± 0.537) | 2.177 (± 0.538) | 2.063 (± 0.509) | 1.986 (± 0.514) |
| Endpoint, FEV1 | 2.464 (± 0.776) | 2.561 (± 0.812) | 2.406 (± 0.696) | 2.262 (± 0.699) |
| Absolute Change from Baseline | 0.367 (± 0.423) | 0.384 (± 0.451) | 0.344 (± 0.385) | 0.276 (± 0.42) |

Statistical analyses

| | |
|---|------------------------|
| Statistical analysis title | Statistical analysis 1 |
| Statistical analysis description: Analysis of covariance (ANCOVA) was applied including treatment group and center as factors, age and | |

baseline FEV1 as covariables in the statistical model in order to calculate a two-sided 95% confidence interval (CI) for the difference in treatment effects (based on the adjusted means).

| | |
|---|--|
| Comparison groups | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) - PPS v Seretide 100 Accuhaler - PPS |
| Number of subjects included in analysis | 263 |
| Analysis specification | Pre-specified |
| Analysis type | non-inferiority |
| P-value | = 0.149 |
| Method | ANCOVA |
| Parameter estimate | Mean Difference |
| Point estimate | -0.065446 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | -0.154491 |
| upper limit | 0.0236 |

| | |
|-----------------------------------|------------------------|
| Statistical analysis title | Statistical analysis 2 |
|-----------------------------------|------------------------|

Statistical analysis description:

Analysis of covariance (ANCOVA) was applied including treatment group and center as factors, age and baseline FEV1 as covariables in the statistical model in order to calculate a two-sided 95% confidence interval (CI) for the difference in treatment effects (based on the adjusted means).

| | |
|---|--|
| Comparison groups | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) - PPS v Seretide 500 Accuhaler - PPS |
| Number of subjects included in analysis | 261 |
| Analysis specification | Pre-specified |
| Analysis type | non-inferiority |
| P-value | = 0.482 |
| Method | ANCOVA |
| Parameter estimate | Mean Difference |
| Point estimate | -0.032006 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | -0.121478 |
| upper limit | 0.057465 |

Primary: Area Under the 12-hour Serial FEV1 Curve (AUC0-12) Relative to the Mean Pre-inhalation FEV1 at Visit 6

| | |
|-----------------|--|
| End point title | Area Under the 12-hour Serial FEV1 Curve (AUC0-12) Relative to the Mean Pre-inhalation FEV1 at Visit 6 |
|-----------------|--|

End point description:

The area under the 12-hour serial FEV1 curve (AUC0-12) at the end of the 12-week treatment period (Visit 6) relative to the mean FEV1 value at Visit 6 pre-inhalation. Missing values of the second primary endpoint 'FEV1 AUC(0-12)' were replaced using linear interpolation.

| | |
|----------------|---------|
| End point type | Primary |
|----------------|---------|

End point timeframe:

At the end of the double blind treatment period

| End point values | Seretide 100 Accuhaler - PPS | Seretide 500 Accuhaler - PPS | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) - PPS | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) - PPS |
|--|------------------------------------|------------------------------------|--|--|
| Subject group type | Subject analysis set | Subject analysis set | Subject analysis set | Subject analysis set |
| Number of subjects analysed | 129 | 134 | 127 | 134 |
| Units: Litre | | | | |
| arithmetic mean (standard deviation) | | | | |
| FEV1 mean of the 2 pre-dose values at Visit 6/ET | 2.464 (± 0.776) | 2.561 (± 0.812) | 2.406 (± 0.696) | 2.262 (± 0.699) |
| FEV1 AUC0-12/12 | 2.561 (± 0.774) | 2.654 (± 0.802) | 2.539 (± 0.715) | 2.369 (± 0.699) |
| Ratio of FEV1 AUC0-12/12 & pre-IP FEV1 | 1.046 (± 0.075) | 1.043 (± 0.082) | 1.055 (± 0.078) | 1.054 (± 0.09) |
| Log of the ratio of FEV1 AUC0-12/12 & pre-IP FEV1 | 0.043 (± 0.069) | 0.039 (± 0.073) | 0.051 (± 0.072) | 0.05 (± 0.082) |

Statistical analyses

| Statistical analysis title | Statistical analysis 3 |
|---|--|
| Statistical analysis description: | |
| Analysis of covariance (ANCOVA) was applied including treatment group and center as factors, age and log transformed mean FEV1 pre-inhalation value as covariates in the statistical model in order to calculate a two-sided 95% confidence interval for the difference in treatment effects (based on the adjusted means). | |
| Comparison groups | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) - PPS v Seretide 100 Accuhaler - PPS |
| Number of subjects included in analysis | 263 |
| Analysis specification | Pre-specified |
| Analysis type | non-inferiority |
| P-value | = 0.902 |
| Method | ANCOVA |
| Parameter estimate | Ratio |
| Point estimate | 1.001062 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | 0.984215 |
| upper limit | 1.018198 |

| Statistical analysis title | Statistical analysis 4 |
|---|------------------------|
| Statistical analysis description: | |
| Analysis of covariance (ANCOVA) was applied including treatment group and center as factors, age and log transformed mean FEV1 pre-inhalation value as covariates in the statistical model in order to calculate a two-sided 95% confidence interval for the difference in treatment effects (based on the adjusted means). | |

| | |
|---|--|
| Comparison groups | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) - PPS v Seretide 500 Accuhaler - PPS |
| Number of subjects included in analysis | 261 |
| Analysis specification | Pre-specified |
| Analysis type | non-inferiority |
| P-value | = 0.333 |
| Method | ANCOVA |
| Parameter estimate | Ratio |
| Point estimate | 1.008245 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | 0.991557 |
| upper limit | 1.025214 |

Adverse events

Adverse events information

Timeframe for reporting adverse events:

From the first intake of investigational product (IP) till the 4 weeks after the last intake of IP

| | |
|-----------------|------------|
| Assessment type | Systematic |
|-----------------|------------|

Dictionary used

| | |
|-----------------|--------|
| Dictionary name | MedDRA |
|-----------------|--------|

| | |
|--------------------|------|
| Dictionary version | 12.1 |
|--------------------|------|

Reporting groups

| | |
|-----------------------|--|
| Reporting group title | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) - Safety Set |
|-----------------------|--|

Reporting group description: -

| | |
|-----------------------|--|
| Reporting group title | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) - Safety Set |
|-----------------------|--|

Reporting group description: -

| | |
|-----------------------|-------------------------------------|
| Reporting group title | Seretide 500 Accuhaler - Safety Set |
|-----------------------|-------------------------------------|

Reporting group description: -

| | |
|-----------------------|-------------------------------------|
| Reporting group title | Seretide 100 Accuhaler - Safety Set |
|-----------------------|-------------------------------------|

Reporting group description: -

| Serious adverse events | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) - Safety Set | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) - Safety Set | Seretide 500 Accuhaler - Safety Set |
|---|--|--|-------------------------------------|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 0 / 139 (0.00%) | 1 / 136 (0.74%) | 0 / 143 (0.00%) |
| number of deaths (all causes) | 0 | 0 | 0 |
| number of deaths resulting from adverse events | 0 | 0 | 0 |
| Nervous system disorders | | | |
| Loss of consciousness | | | |
| subjects affected / exposed | 0 / 139 (0.00%) | 1 / 136 (0.74%) | 0 / 143 (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 | Seretide 100 Accuhaler - Safety Set | | |
|---|-------------------------------------|--|--|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 0 / 137 (0.00%) | | |
| number of deaths (all causes) | 0 | | |
| number of deaths resulting from adverse events | 0 | | |
| Nervous system disorders | | | |
| Loss of consciousness | | | |

| | | | |
|---|-----------------|--|--|
| subjects affected / exposed | 0 / 137 (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: 0 %

| Non-serious adverse events | Salmeterol/Fluticasone DPI HEXAL (50 µg/100 µg) - Safety Set | Salmeterol/Fluticasone DPI HEXAL (50 µg/500 µg) - Safety Set | Seretide 500 Accuhaler - Safety Set |
|---|--|--|-------------------------------------|
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 38 / 139 (27.34%) | 33 / 136 (24.26%) | 35 / 143 (24.48%) |
| Investigations | | | |
| Alanine aminotransferase increased | | | |
| subjects affected / exposed | 1 / 139 (0.72%) | 0 / 136 (0.00%) | 0 / 143 (0.00%) |
| occurrences (all) | 1 | 0 | 0 |
| Vascular disorders | | | |
| Hypertensive crisis | | | |
| subjects affected / exposed | 0 / 139 (0.00%) | 1 / 136 (0.74%) | 0 / 143 (0.00%) |
| occurrences (all) | 0 | 1 | 0 |
| Hypertension | | | |
| subjects affected / exposed | 1 / 139 (0.72%) | 0 / 136 (0.00%) | 1 / 143 (0.70%) |
| occurrences (all) | 1 | 0 | 1 |
| Cardiac disorders | | | |
| Angina pectoris | | | |
| subjects affected / exposed | 1 / 139 (0.72%) | 0 / 136 (0.00%) | 0 / 143 (0.00%) |
| occurrences (all) | 1 | 0 | 0 |
| Extrasystoles | | | |
| subjects affected / exposed | 0 / 139 (0.00%) | 1 / 136 (0.74%) | 0 / 143 (0.00%) |
| occurrences (all) | 0 | 1 | 0 |
| Palpitations | | | |
| subjects affected / exposed | 0 / 139 (0.00%) | 0 / 136 (0.00%) | 1 / 143 (0.70%) |
| occurrences (all) | 0 | 0 | 1 |
| Sinus tachycardia | | | |
| subjects affected / exposed | 0 / 139 (0.00%) | 0 / 136 (0.00%) | 1 / 143 (0.70%) |
| occurrences (all) | 0 | 0 | 1 |
| Tachycardia | | | |

| | | | |
|---|----------------------|----------------------|----------------------|
| subjects affected / exposed occurrences (all) | 1 / 139 (0.72%) 1 | 0 / 136 (0.00%) 0 | 0 / 143 (0.00%) 0 |
| Ventricular extrasystoles subjects affected / exposed occurrences (all) | 0 / 139 (0.00%) 0 | 0 / 136 (0.00%) 0 | 0 / 143 (0.00%) 0 |
| Nervous system disorders | | | |
| Dizziness subjects affected / exposed occurrences (all) | 0 / 139 (0.00%) 0 | 0 / 136 (0.00%) 0 | 1 / 143 (0.70%) 1 |
| Headache subjects affected / exposed occurrences (all) | 5 / 139 (3.60%) 5 | 0 / 136 (0.00%) 0 | 4 / 143 (2.80%) 4 |
| Tremor subjects affected / exposed occurrences (all) | 2 / 139 (1.44%) 2 | 0 / 136 (0.00%) 0 | 0 / 143 (0.00%) 0 |
| Blood and lymphatic system disorders | | | |
| Anaemia subjects affected / exposed occurrences (all) | 0 / 139 (0.00%) 0 | 1 / 136 (0.74%) 1 | 0 / 143 (0.00%) 0 |
| Lymphadenitis subjects affected / exposed occurrences (all) | 0 / 139 (0.00%) 0 | 0 / 136 (0.00%) 0 | 0 / 143 (0.00%) 0 |
| General disorders and administration site conditions | | | |
| Chest pain subjects affected / exposed occurrences (all) | 1 / 139 (0.72%) 1 | 0 / 136 (0.00%) 0 | 0 / 143 (0.00%) 0 |
| Gastrointestinal disorders | | | |
| Abdominal pain subjects affected / exposed occurrences (all) | 1 / 139 (0.72%) 1 | 0 / 136 (0.00%) 0 | 0 / 143 (0.00%) 0 |
| Diarrhoea subjects affected / exposed occurrences (all) | 2 / 139 (1.44%) 2 | 0 / 136 (0.00%) 0 | 0 / 143 (0.00%) 0 |
| Dyspepsia subjects affected / exposed occurrences (all) | 1 / 139 (0.72%) 1 | 0 / 136 (0.00%) 0 | 1 / 143 (0.70%) 1 |

| | | | |
|--|----------------------|----------------------|----------------------|
| Nausea subjects affected / exposed occurrences (all) | 1 / 139 (0.72%) 1 | 2 / 136 (1.47%) 2 | 1 / 143 (0.70%) 1 |
| Toothache subjects affected / exposed occurrences (all) | 2 / 139 (1.44%) 2 | 0 / 136 (0.00%) 0 | 0 / 143 (0.00%) 0 |
| Vomiting subjects affected / exposed occurrences (all) | 0 / 139 (0.00%) 0 | 0 / 136 (0.00%) 0 | 0 / 143 (0.00%) 0 |
| Respiratory, thoracic and mediastinal disorders | | | |
| Asthma subjects affected / exposed occurrences (all) | 3 / 139 (2.16%) 3 | 3 / 136 (2.21%) 3 | 2 / 143 (1.40%) 2 |
| Dysphonia subjects affected / exposed occurrences (all) | 3 / 139 (2.16%) 3 | 6 / 136 (4.41%) 6 | 2 / 143 (1.40%) 2 |
| Nasal congestion subjects affected / exposed occurrences (all) | 0 / 139 (0.00%) 0 | 0 / 136 (0.00%) 0 | 0 / 143 (0.00%) 0 |
| Oropharyngeal pain subjects affected / exposed occurrences (all) | 1 / 139 (0.72%) 1 | 1 / 136 (0.74%) 1 | 0 / 143 (0.00%) 0 |
| Throat irritation subjects affected / exposed occurrences (all) | 2 / 139 (1.44%) 2 | 1 / 136 (0.74%) 2 | 1 / 143 (0.70%) 1 |
| Skin and subcutaneous tissue disorders | | | |
| Psoriasis subjects affected / exposed occurrences (all) | 0 / 139 (0.00%) 0 | 0 / 136 (0.00%) 0 | 0 / 143 (0.00%) 0 |
| Musculoskeletal and connective tissue disorders | | | |
| Back pain subjects affected / exposed occurrences (all) | 1 / 139 (0.72%) 1 | 0 / 136 (0.00%) 0 | 1 / 143 (0.70%) 1 |
| Infections and infestations | | | |
| Acute tonsillitis | | | |

| | | | |
|-----------------------------------|-----------------|-----------------|-----------------|
| subjects affected / exposed | 0 / 139 (0.00%) | 0 / 136 (0.00%) | 0 / 143 (0.00%) |
| occurrences (all) | 0 | 0 | 0 |
| Bronchitis | | | |
| subjects affected / exposed | 1 / 139 (0.72%) | 2 / 136 (1.47%) | 1 / 143 (0.70%) |
| occurrences (all) | 1 | 2 | 1 |
| Candidiasis | | | |
| subjects affected / exposed | 0 / 139 (0.00%) | 1 / 136 (0.74%) | 0 / 143 (0.00%) |
| occurrences (all) | 0 | 1 | 0 |
| Influenza | | | |
| subjects affected / exposed | 0 / 139 (0.00%) | 2 / 136 (1.47%) | 4 / 143 (2.80%) |
| occurrences (all) | 0 | 2 | 4 |
| Erysipelas | | | |
| subjects affected / exposed | 1 / 139 (0.72%) | 0 / 136 (0.00%) | 0 / 143 (0.00%) |
| occurrences (all) | 1 | 0 | 0 |
| Nasopharyngitis | | | |
| subjects affected / exposed | 6 / 139 (4.32%) | 5 / 136 (3.68%) | 4 / 143 (2.80%) |
| occurrences (all) | 6 | 5 | 4 |
| Oral candidiasis | | | |
| subjects affected / exposed | 0 / 139 (0.00%) | 1 / 136 (0.74%) | 2 / 143 (1.40%) |
| occurrences (all) | 0 | 1 | 2 |
| Respiratory tract infection | | | |
| subjects affected / exposed | 1 / 139 (0.72%) | 1 / 136 (0.74%) | 2 / 143 (1.40%) |
| occurrences (all) | 1 | 1 | 2 |
| Oropharyngeal candidiasis | | | |
| subjects affected / exposed | 1 / 139 (0.72%) | 0 / 136 (0.00%) | 1 / 143 (0.70%) |
| occurrences (all) | 1 | 0 | 1 |
| Respiratory tract infection viral | | | |
| subjects affected / exposed | 4 / 139 (2.88%) | 1 / 136 (0.74%) | 4 / 143 (2.80%) |
| occurrences (all) | 4 | 1 | 5 |
| Rhinitis | | | |
| subjects affected / exposed | 1 / 139 (0.72%) | 3 / 136 (2.21%) | 0 / 143 (0.00%) |
| occurrences (all) | 1 | 3 | 0 |
| Upper respiratory tract infection | | | |
| subjects affected / exposed | 1 / 139 (0.72%) | 3 / 136 (2.21%) | 6 / 143 (4.20%) |
| occurrences (all) | 2 | 3 | 7 |
| Sinusitis | | | |

| | | | |
|---|----------------------|----------------------|----------------------|
| subjects affected / exposed occurrences (all) | 0 / 139 (0.00%) 0 | 0 / 136 (0.00%) 0 | 1 / 143 (0.70%) 1 |
| Viral infection subjects affected / exposed occurrences (all) | 2 / 139 (1.44%) 2 | 1 / 136 (0.74%) 1 | 0 / 143 (0.00%) 0 |
| Viral pharyngitis subjects affected / exposed occurrences (all) | 0 / 139 (0.00%) 0 | 1 / 136 (0.74%) 1 | 0 / 143 (0.00%) 0 |
| Viral rhinitis subjects affected / exposed occurrences (all) | 1 / 139 (0.72%) 1 | 0 / 136 (0.00%) 0 | 1 / 143 (0.70%) 1 |
| Vulvovaginal mycotic infection subjects affected / exposed occurrences (all) | 0 / 139 (0.00%) 0 | 0 / 136 (0.00%) 0 | 0 / 143 (0.00%) 0 |
| Metabolism and nutrition disorders Obesity subjects affected / exposed occurrences (all) | 0 / 139 (0.00%) 0 | 1 / 136 (0.74%) 1 | 0 / 143 (0.00%) 0 |

| | | | |
|--|---|--|--|
| Non-serious adverse events | Seretide 100 Accuhaler - Safety Set | | |
| Total subjects affected by non-serious adverse events subjects affected / exposed | 31 / 137 (22.63%) | | |
| Investigations Alanine aminotransferase increased subjects affected / exposed occurrences (all) | 0 / 137 (0.00%) 0 | | |
| Vascular disorders Hypertensive crisis subjects affected / exposed occurrences (all) | 1 / 137 (0.73%) 1 | | |
| Hypertension subjects affected / exposed occurrences (all) | 0 / 137 (0.00%) 0 | | |
| Cardiac disorders Angina pectoris | | | |

| | | | |
|--|-----------------|--|--|
| subjects affected / exposed | 0 / 137 (0.00%) | | |
| occurrences (all) | 0 | | |
| Extrasystoles | | | |
| subjects affected / exposed | 0 / 137 (0.00%) | | |
| occurrences (all) | 0 | | |
| Palpitations | | | |
| subjects affected / exposed | 0 / 137 (0.00%) | | |
| occurrences (all) | 0 | | |
| Sinus tachycardia | | | |
| subjects affected / exposed | 0 / 137 (0.00%) | | |
| occurrences (all) | 0 | | |
| Tachycardia | | | |
| subjects affected / exposed | 1 / 137 (0.73%) | | |
| occurrences (all) | 1 | | |
| Ventricular extrasystoles | | | |
| subjects affected / exposed | 1 / 137 (0.73%) | | |
| occurrences (all) | 1 | | |
| Nervous system disorders | | | |
| Dizziness | | | |
| subjects affected / exposed | 0 / 137 (0.00%) | | |
| occurrences (all) | 0 | | |
| Headache | | | |
| subjects affected / exposed | 1 / 137 (0.73%) | | |
| occurrences (all) | 1 | | |
| Tremor | | | |
| subjects affected / exposed | 0 / 137 (0.00%) | | |
| occurrences (all) | 0 | | |
| Blood and lymphatic system disorders | | | |
| Anaemia | | | |
| subjects affected / exposed | 0 / 137 (0.00%) | | |
| occurrences (all) | 0 | | |
| Lymphadenitis | | | |
| subjects affected / exposed | 1 / 137 (0.73%) | | |
| occurrences (all) | 1 | | |
| General disorders and administration site conditions | | | |

| | | | |
|--|----------------------|--|--|
| Chest pain subjects affected / exposed occurrences (all) | 0 / 137 (0.00%) 0 | | |
| Gastrointestinal disorders | | | |
| Abdominal pain subjects affected / exposed occurrences (all) | 1 / 137 (0.73%) 1 | | |
| Diarrhoea subjects affected / exposed occurrences (all) | 0 / 137 (0.00%) 0 | | |
| Dyspepsia subjects affected / exposed occurrences (all) | 2 / 137 (1.46%) 2 | | |
| Nausea subjects affected / exposed occurrences (all) | 2 / 137 (1.46%) 2 | | |
| Toothache subjects affected / exposed occurrences (all) | 0 / 137 (0.00%) 0 | | |
| Vomiting subjects affected / exposed occurrences (all) | 1 / 137 (0.73%) 1 | | |
| Respiratory, thoracic and mediastinal disorders | | | |
| Asthma subjects affected / exposed occurrences (all) | 1 / 137 (0.73%) 1 | | |
| Dysphonia subjects affected / exposed occurrences (all) | 4 / 137 (2.92%) 4 | | |
| Nasal congestion subjects affected / exposed occurrences (all) | 1 / 137 (0.73%) 1 | | |
| Oropharyngeal pain subjects affected / exposed occurrences (all) | 1 / 137 (0.73%) 1 | | |
| Throat irritation | | | |

| | | | |
|---|--|--|--|
| subjects affected / exposed occurrences (all) | 3 / 137 (2.19%) 3 | | |
| Skin and subcutaneous tissue disorders Psoriasis subjects affected / exposed occurrences (all) | 1 / 137 (0.73%) 1 | | |
| Musculoskeletal and connective tissue disorders Back pain subjects affected / exposed occurrences (all) | 0 / 137 (0.00%) 0 | | |
| Infections and infestations Acute tonsillitis subjects affected / exposed occurrences (all) Bronchitis subjects affected / exposed occurrences (all) Candidiasis subjects affected / exposed occurrences (all) Influenza subjects affected / exposed occurrences (all) Erysipelas subjects affected / exposed occurrences (all) Nasopharyngitis subjects affected / exposed occurrences (all) Oral candidiasis subjects affected / exposed occurrences (all) Respiratory tract infection subjects affected / exposed occurrences (all) Oropharyngeal candidiasis | 1 / 137 (0.73%) 1 2 / 137 (1.46%) 2 0 / 137 (0.00%) 0 4 / 137 (2.92%) 4 0 / 137 (0.00%) 0 6 / 137 (4.38%) 6 1 / 137 (0.73%) 1 2 / 137 (1.46%) 2 | | |

| | | | |
|------------------------------------|-----------------|--|--|
| subjects affected / exposed | 0 / 137 (0.00%) | | |
| occurrences (all) | 0 | | |
| Respiratory tract infection viral | | | |
| subjects affected / exposed | 3 / 137 (2.19%) | | |
| occurrences (all) | 3 | | |
| Rhinitis | | | |
| subjects affected / exposed | 2 / 137 (1.46%) | | |
| occurrences (all) | 2 | | |
| Upper respiratory tract infection | | | |
| subjects affected / exposed | 1 / 137 (0.73%) | | |
| occurrences (all) | 1 | | |
| Sinusitis | | | |
| subjects affected / exposed | 0 / 137 (0.00%) | | |
| occurrences (all) | 0 | | |
| Viral infection | | | |
| subjects affected / exposed | 0 / 137 (0.00%) | | |
| occurrences (all) | 0 | | |
| Viral pharyngitis | | | |
| subjects affected / exposed | 1 / 137 (0.73%) | | |
| occurrences (all) | 1 | | |
| Viral rhinitis | | | |
| subjects affected / exposed | 1 / 137 (0.73%) | | |
| occurrences (all) | 1 | | |
| Vulvovaginal mycotic infection | | | |
| subjects affected / exposed | 1 / 137 (0.73%) | | |
| occurrences (all) | 1 | | |
| Metabolism and nutrition disorders | | | |
| Obesity | | | |
| subjects affected / exposed | 0 / 137 (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