

ClinicalTrials.gov Protocol and Results Registration System (PRS) Receipt
Release Date: 07/27/2012

ClinicalTrials.gov ID: NCT00542880

Study Identification

Unique Protocol ID: D5892C00016

Brief Title: Evaluation of Onset of Effect in Patients With Severe Chronic Obstructive Pulmonary Disease (COPD) Treated With Symbicort® Compared to Seretide® (SPEED)

Official Title: A Double-blind, Randomised, Cross-over, Multi-centre Study, to Evaluate Onset of Effect in the Morning in Patients With Severe Chronic Obstructive Pulmonary Disease (COPD) Treated With Symbicort®Turbuhaler® 320/9 µg, Compared With Seretide® Diskus® 50/500 µg, Both Given as One Inhalation Twice Daily for One Week Each.

Secondary IDs:

Study Status

Record Verification: July 2012

Overall Status: Completed

Study Start: September 2007

Primary Completion: August 2008 [Actual]

Study Completion: August 2008 [Actual]

Sponsor/Collaborators

Sponsor: AstraZeneca

Responsible Party: Sponsor

Collaborators:

Oversight

FDA Regulated?: Yes

Applicable Trial?: Section 801 Clinical Trial? Yes
Delayed Posting? No

IND/IDE Protocol?: No

Review Board: Approval Status: Approved
Approval Number: H-C-2007-0047
Board Name: VEK for Region Hovedstaden
Board Affiliation: VEK for Region Hovedstaden
Phone: +45 4820 5729
Email: vek@regionh.dk

Data Monitoring?: No

Plan to Share Data?:

Oversight Authorities: Argentina: Administracion Nacional de Medicamentos, Alimentos y Tecnologia Medica
Australia: Department of Health and Ageing Therapeutic Goods Administration
Belgium: Ministerie Van Sociale Zaken
Brazil: National Health Surveillance Agency
Denmark: Danish Medicines Agency
Germany: Bundesinstitut für Arzneimittel und Medizin
India: Drug Controller General
Philippines: Bureau of Food and Drugs
United Kingdom: Information Processing Unit - Area 6

Study Description

Brief Summary: This study is to assess the effects with two different inhaled respiratory medications with regards to improvement of lung function, symptoms and morning activities.

Detailed Description:

Conditions

Conditions: Chronic Obstructive Pulmonary Disease (COPD)

Keywords: COPD
Symbicort
Seretide

Study Design

Study Type: Interventional

Primary Purpose: Treatment

Study Phase: Phase 4

Intervention Model: Crossover Assignment

Number of Arms: 2

Masking: Double Blind (Subject, Caregiver, Investigator)

Allocation: Randomized

Endpoint Classification: Efficacy Study

Enrollment: 442 [Actual]

Arms and Interventions

| Arms | Assigned Interventions |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Experimental: Symbicort Turbuhaler First, then Seretide Diskus Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg First, then Seretide Diskus (salmeterol/fluticasone) 50/500 µg | Drug: Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg Drug: Seretide Diskus (salmeterol/fluticasone) 50/500 µg |
| Experimental: Seretide Diskus First, then Symbicort Turbuhaler Seretide Diskus (salmeterol/fluticasone) 50/500 µg First, then Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg | Drug: Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg Drug: Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Outcome Measures

[See Results Section.]

Eligibility

Minimum Age: 40 Years

Maximum Age:

Gender: Both

Accepts Healthy Volunteers?: No

Criteria: Inclusion Criteria:

- Outpatient, female or male aged ≥ 40 years, diagnosis of COPD with symptoms for at least 2 years
- FEV1 $\leq 50\%$ of predicted normal value, pre-bronchodilator, FEV1/VC $< 70\%$

- Pre-bronchodilator

Exclusion Criteria:

- Current respiratory tract disorder other than COPD
- History of asthma or rhinitis
- Significant or unstable cardiovascular disorder

Contacts/Locations

Study Officials: Tomas Andersson, MD
Study Director
AstraZeneca

Martyn R Partridge, MD FRCP
Study Principal Investigator
Faculty of Medicine, Imperial College, NHLI at Charing Cross Hospital, LONDON, UK

Locations: Argentina
Research Site
Monte Grande, Buenos Aires, Argentina

Research Site
Quilmes, Buenos Aires, Argentina

Research Site
San Miguel de Tucuman, Tucuman, Argentina

Research Site
Ciudad Autonoma de Bs. As., Argentina

Research Site
Ciudad de Buenos Aires, Argentina

Australia, New South Wales
Research Site
Concord, New South Wales, Australia

Australia, South Australia
Research Site
Adelaide, South Australia, Australia

Research Site
Daw Park, South Australia, Australia

Research Site
Woodville South, South Australia, Australia

Australia, Victoria
Research Site
Melbourne, Victoria, Australia

Research Site
Parkville, Victoria, Australia

Australia, Western Australia
Research Site
Nedlands, Western Australia, Australia

Belgium
Research Site
Jambes, Belgium, Belgium

Research Site
Malmedy, Belgium, Belgium

Research Site
Montigny-le-tilleul, Belgium, Belgium

Brazil
Research Site
Porto Alegre, Brasil, Brazil

Research Site
Juiz de Fora, MG, Brazil

Research Site
Recife, PE, Brazil

Research Site
Rio de Janeiro, RJ, Brazil

Research Site
Porto Alegre, RS, Brazil

Research Site
Florianopolis, Santa Catarina, Brazil

Research Site
Santo Andre, SP, Brazil

Research Site
Sao Paulo, SP, Brazil

Research Site
Rio de Janeiro, Brazil

Denmark
Research Site
Aalborg, Denmark

Research Site
Alborg, Denmark

Research Site
Hellerup, Denmark

Research Site
Hvidovre, Denmark

Research Site
Kobenhavn Nv, Denmark

Research Site
Odense C, Denmark

Research Site
Rodovre, Denmark

Research Site
Silkeborg, Denmark

Germany
Research Site
Berlin, Germany

Research Site
Erfurt, Germany

Research Site
Leipzig, Germany

Research Site
Marburg, Germany

United Kingdom
Research Site

Dartford, Kent, United Kingdom

Research Site

Hamilton, Lanarkshire, United Kingdom

Research Site

Motherwell, Lanarkshire, United Kingdom

Research Site

Cookstown, N. Ireland, United Kingdom

Research Site

Limavady, Northern Ireland, United Kingdom

Research Site

Newtownabbey, Northern Ireland, United Kingdom

Research Site

Barry, South Glamorgan, United Kingdom

Research Site

Barry, Vale of Glamorgan, United Kingdom

Research Site

Bradford-on-avon, Wiltshire, United Kingdom

Research Site

Airdrie, United Kingdom

Research Site

Birmingham, United Kingdom

Research Site

Blantyre, United Kingdom

Research Site

Bolton, United Kingdom

Research Site

Carrickfergus, United Kingdom

Research Site

Chesterfield, United Kingdom

Research Site

Coventry, United Kingdom

Research Site
Hamilton, United Kingdom

India
Research Site
Hyderabad, Andhra Pradesh, India

Research Site
Bangalore, Karnataka, India

Research Site
Jaipur, Rajasthan, India

Research Site
Coimbatore, India

Research Site
Noida, India

Philippines
Research Site
Manila, Philippines

Research Site
Quezon City, Philippines

References

Citations:

Links:

Study Data/Documents:

Study Results

Participant Flow

Recruitment Details

706 subjects were enrolled; 264 were not randomised: 190 with eligibility not fulfilled, 11 with adverse events, 4 with discontinuation criteria, 40 voluntary discontinuations, 2 lost to follow-ups, 6 non-compliance, 1 for safety reasons, 10 with other reasons not specified. 442 subjects were randomised

Reporting Groups

| | Description |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Symbicort Turbuhaler First, Then Seretide Diskus | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg First, then Seretide Diskus (salmeterol/fluticasone) 50/500 µg |
| Seretide Diskus First, Then Symbicort Turbuhaler | Seretide Diskus (salmeterol/fluticasone) 50/500 µg First, then Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |

Period 1

| | Symbicort Turbuhaler First, Then Seretide Diskus | Seretide Diskus First, Then Symbicort Turbuhaler |
|----------------------------------------|--------------------------------------------------|--------------------------------------------------|
| Started | 217 ^[1] | 225 |
| Completed | 211 | 213 |
| Not Completed | 6 | 12 |
| Eligibility criteria not fulfilled | 2 | 6 |
| Adverse Event | 2 | 2 |
| Development of study-specific criteria | 1 | 2 |
| Withdrawal by Subject | 1 | 1 |
| Protocol Violation | 0 | 1 |

[1] This was a cross-over study

Period 2

| | Symbicort Turbuhaler First, Then Seretide Diskus | Seretide Diskus First, Then Symbicort Turbuhaler |
|---------------------------|--------------------------------------------------|--------------------------------------------------|
| Started | 211 | 213 |
| Completed | 204 | 203 |
| Not Completed | 7 | 10 |
| Adverse Event | 5 | 7 |
| Eligibility not fulfilled | 0 | 1 |
| Discontinuation criteria | 2 | 0 |
| Severe non-compliance | 0 | 1 |
| Not specified | 0 | 1 |

Period 3

| | Symbicort Turbuhaler First, Then Seretide Diskus | Seretide Diskus First, Then Symbicort Turbuhaler |
|---------------|--------------------------------------------------|--------------------------------------------------|
| Started | 204 | 203 |
| Completed | 204 | 201 |
| Not Completed | 0 | 2 |
| Adverse Event | 0 | 2 |

 Baseline Characteristics

Reporting Groups

| | Description |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Symbicort Turbuhaler First, Then Seretide Diskus | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg First, then Seretide Diskus (salmeterol/fluticasone) 50/500 µg |
| Seretide Diskus First, Then Symbicort Turbuhaler | Seretide Diskus (salmeterol/fluticasone) 50/500 µg First, then Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |

Baseline Measures

| | Symbicort Turbuhaler First, Then Seretide Diskus | Seretide Diskus First, Then Symbicort Turbuhaler | Total |
|--------------------------------------------------------|--------------------------------------------------|--------------------------------------------------|-----------------|
| Number of Participants | 217 | 225 | 442 |
| Age, Continuous [units: years] Mean (Full Range) | 62.9 (41 to 82) | 63.2 (40 to 86) | 63.1 (40 to 86) |
| Gender, Male/Female [units: Participants] | | | |
| Female | 55 | 71 | 126 |
| Male | 162 | 154 | 316 |

 Outcome Measures

1. Primary Outcome Measure:

| | |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | Peak Expiratory Flow (PEF) 5 Minutes After Morning Dose |
| Measure Description | The change from baseline in PEF was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and all days of treatment, with baseline as covariate. |

| | |
|---------------|-------------------------------------------------------------------------------------------------------------|
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|----------------------------------------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 385 | 390 |
| Peak Expiratory Flow (PEF) 5 Minutes After Morning Dose [units: liters/minute] Mean (Standard Deviation) | 15.1 (28.5) | 13.4 (28.2) |

2. Secondary Outcome Measure:

| | |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | PEF Before Morning Dose |
| Measure Description | The change from baseline was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and over all days of treatment, with baseline as covariate. |
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|---------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 416 | 425 |
| PEF Before Morning Dose [units: Liters/minutes] Mean (Standard Deviation) | 4.8 (28.2) | 7.9 (24) |

3. Secondary Outcome Measure:

| | |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | PEF 15 Minutes After Morning Dose |
| Measure Description | The change from baseline was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and over all days of treatment, with baseline as covariate. |
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|------------------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 377 | 389 |
| PEF 15 Minutes After Morning Dose [units: Liters/minute] Mean (Standard Deviation) | 19.9 (30.3) | 16.7 (28.5) |

4. Secondary Outcome Measure:

| | |
|---------------|-------------------------|
| Measure Title | PEF Before Evening Dose |
|---------------|-------------------------|

| | |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Description | The change from baseline was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and over all days of treatment, with baseline as covariate. |
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|--------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 418 | 426 |
| PEF Before Evening Dose [units: Liters/minute] Mean (Standard Deviation) | 4 (24.3) | 1.8 (50) |

5. Secondary Outcome Measure:

| | |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | Forced Expiratory Volume in 1 Second (FEV1) Before Morning Dose |
| Measure Description | The change from baseline was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and over all days of treatment, with baseline as covariate. |
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|-----------------------------------------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 280 | 269 |
| Forced Expiratory Volume in 1 Second (FEV1) Before Morning Dose [units: Liters] Mean (Standard Deviation) | 0.0310 (0.2460) | 0.0590 (0.2310) |

6. Secondary Outcome Measure:

| | |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | FEV1 15 Minutes After Morning Dose |
| Measure Description | The change from baseline was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and over all days of treatment, with baseline as covariate. |
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|------------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 249 | 249 |
| FEV1 15 Minutes After Morning Dose [units: Liters] Mean (Standard Deviation) | 0.1220 (0.2530) | 0.1030 (0.3720) |

7. Secondary Outcome Measure:

| | |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | FEV1 Before Evening Dose |
| Measure Description | The change from baseline was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and over all days of treatment, with baseline as covariate. |
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|--------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 248 | 243 |
| FEV1 Before Evening Dose [units: Liters] Mean (Standard Deviation) | 0.1470 (0.2470) | 0.1060 (0.2010) |

8. Secondary Outcome Measure:

| | |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | Change in PEF From Before Dose to 5 Minutes After Dose in the Morning |
| Measure Description | The change from pre-dose was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and over all days of treatment, with pre-dose run-in/washout as covariate. |
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 279 | 279 |
| Change in PEF From Before Dose to 5 Minutes After Dose in the Morning [units: Liters/minute] Mean (Standard Deviation) | 0.0160 (0.2) | 0.0030 (0.299) |

9. Secondary Outcome Measure:

| | |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | Change in PEF From Before Dose to 15 Minutes After Dose in the Morning |
| Measure Description | The change from pre-dose was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and over all days of treatment, with mean pre-dose run-in/washout as covariate. |
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|--------------------------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 368 | 376 |
| Change in PEF From Before Dose to 15 Minutes After Dose in the Morning [units: Liters/minute] | 11.6 (16.2) | 6.1 (16.5) |

| | Symbicort Turbuhaler | Seretide Diskus |
|---------------------------|----------------------|-----------------|
| Mean (Standard Deviation) | | |

10. Secondary Outcome Measure:

| | |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | Change in FEV1 from Before Dose to 5 Minutes After Dose in the Morning |
| Measure Description | The change from pre-dose was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and over all days of treatment, with mean pre-dose run-in/washout as covariate. |
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 368 | 376 |
| Change in FEV1 from Before Dose to 5 Minutes After Dose in the Morning [units: Liters] Mean (Standard Deviation) | 15.8 (20.8) | 9.6 (19.9) |

11. Secondary Outcome Measure:

| | |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | Change in FEV1 From Before Dose to 15 Minutes After Dose in the Morning |
| Measure Description | The change from pre-dose was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and over all days of treatment, with mean pre-dose run-in/washout as covariate. |
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |

| | |
|---------------|----|
| Safety Issue? | No |
|---------------|----|

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|-------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 233 | 238 |
| Change in FEV1 From Before Dose to 15 Minutes After Dose in the Morning [units: Liters] Mean (Standard Deviation) | 0.0930 (0.1870) | 0.0280 (0.1630) |

12. Secondary Outcome Measure:

| | |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | Change in FEV1 From Before Dose to 5 Minutes After Dose at the Clinic |
| Measure Description | The change from pre-dose was calculated using the pre-dose baseline value (run-in and washout period respectively), and pre-dose value at day 1, with pre-dose run-in/washout as covariate. |
| Time Frame | Baseline (run-in, and washout) and day 1 of treatment period |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|-----------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 233 | 238 |
| Change in FEV1 From Before Dose to 5 Minutes After Dose at the Clinic [units: Liters] Mean (Standard Deviation) | 0.1120 (0.1950) | 0.0440 (0.1640) |

13. Secondary Outcome Measure:

| | |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | Change in Forced Vital Capacity (FVC) From Before Dose to 5 Minutes After Dose at the Clinic |
| Measure Description | The change from pre-dose was calculated using the pre-dose baseline value (run-in and washout period respectively), and pre-dose value at day 1, with pre-dose run-in/washout as covariate. |
| Time Frame | Baseline (run-in, and washout) and day 1 of treatment period |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 415 | 426 |
| Change in Forced Vital Capacity (FVC) From Before Dose to 5 Minutes After Dose at the Clinic [units: Liters] Mean (Standard Deviation) | 0.0950 (0.1370) | 0.0490 (0.1060) |

14. Secondary Outcome Measure:

| | |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | Capacity of Daily Living in the Morning (CDLM) (Change From Pre to End of Treatment) |
| Measure Description | The change from baseline was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and over all days of treatment, with baseline as covariate. Score scale 0 - 5 with 0=worst and 5 = best. |
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |
| Safety Issue? | Yes |

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|-----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus First | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus First |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------|
| Number of Participants Analyzed | 415 | 426 |
| Capacity of Daily Living in the Morning (CDLM) (Change From Pre to End of Treatment) [units: units on a scale] Mean (Standard Deviation) | 0.1920 (0.2530) | 0.1240 (0.2310) |

15. Secondary Outcome Measure:

| | |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | Difficulty in Getting Out From Bed (MASQ) (Change From Pre to End of Treatment) |
| Measure Description | The change from baseline was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and over all days of treatment, with baseline as covariate. Score scale 0 - 5 with 0=worst and 5 = best. |
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 319 | 311 |
| Difficulty in Getting Out From Bed (MASQ) (Change From Pre to End of Treatment) [units: Units on a scale] Mean (Standard Deviation) | 0.21 (0.64) | 0.14 (0.75) |

16. Secondary Outcome Measure:

| | |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measure Title | The Clinical Chronic Obstructive Pulmonary Disease (COPD) Questionnaire (Change From Pre to End of Treatment) |
| Measure Description | The change from baseline was calculated using the average over baseline (the last 7 days of run-in and washout period respectively), and over all days of treatment, with baseline as covariate. Score scale 0 - 6 with 0=worst and 6 = best. |
| Time Frame | Baseline (daily records during run-in, and washout) and daily records during the treatment period of 7 days |
| Safety Issue? | No |

Analysis Population Description

Includes all subjects with at least one dose of study medication and who contribute sufficient data for the endpoint to be calculated.

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Measured Values

| | Symbicort Turbuhaler | Seretide Diskus |
|---------------------------------------------------------------------------------------------------------------|----------------------|-----------------|
| Number of Participants Analyzed | 394 | 396 |
| The Clinical Chronic Obstructive Pulmonary Disease (COPD) Questionnaire (Change From Pre to End of Treatment) | 0.24 (0.75) | 0.19 (0.73) |

| | Symbicort Turbuhaler | Seretide Diskus |
|--------------------------------------------------------|----------------------|-----------------|
| [units: Units on a scale] Mean (Standard Deviation) | | |

▶ Reported Adverse Events

| | |
|------------------------|-----------------|
| Time Frame | [Not specified] |
| Additional Description | [Not specified] |

Reporting Groups

| | Description |
|----------------------|-------------------------------------------------------|
| Symbicort Turbuhaler | Symbicort Turbuhaler (budesonide/formoterol) 320/9 µg |
| Seretide Diskus | Seretide Diskus (salmeterol/fluticasone) 50/500 µg |

Serious Adverse Events

| | Symbicort Turbuhaler | Seretide Diskus |
|------------------------------------------------------|----------------------|----------------------|
| | Affected/At Risk (%) | Affected/At Risk (%) |
| Total | 3/420 (0.71%) | 1/429 (0.23%) |
| General disorders | | |
| Gait disturbance ^{A †} | 1/420 (0.24%) | 0/429 (0%) |
| Respiratory, thoracic and mediastinal disorders | | |
| Chronic obstructive pulmonary disease ^{A †} | 2/420 (0.48%) | 1/429 (0.23%) |

† Indicates events were collected by systematic assessment.

A Term from vocabulary, MedDRA 11.0

Other Adverse Events

Frequency Threshold Above Which Other Adverse Events are Reported: 5%

| | Symbicort Turbuhaler | Seretide Diskus |
|-------|----------------------|----------------------|
| | Affected/At Risk (%) | Affected/At Risk (%) |
| Total | 0/420 (0%) | 0/429 (0%) |

Limitations and Caveats

[Not specified]

More Information

Certain Agreements:

Principal Investigators are NOT employed by the organization sponsoring the study.

There IS an agreement between the Principal Investigator and the Sponsor (or its agents) that restricts the PI's rights to discuss or publish trial results after the trial is completed.

Prior to any publication or disclosure, the PI provides AstraZeneca with preliminary data and drafts and with the proposed final manuscript. AstraZeneca shall have a period of 30 days from receipt of the proposed final manuscript to review it and may within such time frame require that submission for publication or disclosure be delayed.

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