Protocol Registration Receipt
12/19/2013

Grantor: CDER IND/IDE Number: 104479 Serial Number: 0055

Evaluate the Efficacy and Safety of GSK573719 Delivered Via a Novel Dry Powder Inhaler in Subjects With COPD

This study has been completed.

Sponsor:	GlaxoSmithKline
Collaborators:	
Information provided by (Responsible Party):	GlaxoSmithKline
ClinicalTrials.gov Identifier:	NCT01387230

Purpose

The purpose of this study is to assess if 12 weeks' treatment with GSK573719 Inhalation Powder is safe and effective compared with placebo or no active drug intake, when administered once-daily in subjects with Chronic Obstructive Pulmonary Disease (COPD).

Condition	Intervention	Phase
Pulmonary Disease, Chronic Obstructive	Drug: GSK573719 Placebo	Phase 3

Study Type: Interventional
Study Design: Treatment, Parallel Assignment, Double Blind (Subject, Investigator, Outcomes Assessor), Randomized, Safety/Efficacy Study
Official Title: A12-Week, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Evaluate the Efficacy and Safety of GSK573719 Delivered Once-Daily Via a Novel Dry Powder Inhaler in Subjects With Chronic Obstructive Pulmonary Disease

Further study details as provided by GlaxoSmithKline:

Primary Outcome Measure:

- Change From Baseline (BL) in Trough Forced Expiratory Volume in One Second (FEV1) on Day 85 [Time Frame: Baseline and Day 85] [Designated as safety issue: No]

  FEV1 is a measure of lung function and is defined as the maximal amount of air that can be forcefully exhaled in one second. Trough FEV1 measurements were taken electronically by spirometry on Days 2, 14, 28, 56, 84, and 85. Baseline is defined as the mean of the assessments made 30 minutes pre-dose and 5 minutes pre-dose on Treatment Day 1. Trough FEV1 is defined as the mean of the FEV1 values obtained at 23 and 24 hours after the previous morning's dosing (ie., trough FEV1 on Day 85 is the mean of the FEV1 values obtained 23 and 24 hours after the morning dosing on Day 84). Change from Baseline was calculated as the trough FEV1 minus the Baseline. Analysis was performed using a repeated measures model with covariates of treatment, Baseline , smoking status, center group, day, and day by Baseline and day by treatment interactions.

Secondary Outcome Measures:

- Change From Baseline in Weighted Mean (WM) 0-6 Hour FEV1 Obtained Post-dose at Days 1, 28 (Week 4) and 84 (Week 12) [Time Frame: Baseline and Days 1, 28 and 84] [Designated as safety issue: No]

  FEV1 is a measure of lung function and is defined as the maximal amount of air that can be forcefully exhaled in one second. The WM FEV1 was derived by calculating the area under the FEV1/time curve (AUC) using the trapezoidal rule, and then dividing the value by the time interval over which the AUC was calculated. The WM was calculated at Days 1, 28, and Day 84 using the 0-6-hour post-dose FEV1 measurements collected on that day, which included pre-dose (Day 1: 30 minutes [min] and 5 min prior to dosing; other serial visits: 23 and 24 hours after the previous morning dose) and post-dose at 1 hour, 3 hours, and 6 hours. Change from Baseline was the WM minus Baseline. Analysis was performed using a repeated measures model with covariates of treatment, Baseline (mean of the two assessments made 30 minutes and 5 minutes pre-dose on Day 1), smoking status, center group, day, and day by Baseline and day by treatment interactions.
- Change From Baseline in Serial FEV1 Over 24 Hours Post-dose at Days 1 and 84 (Week 12) [Time Frame: Baseline, Day 1 and Day 84] [Designated as safety issue: No]

  Pulmonary function was measured by FEV1, defined as the maximal amount of air that can be forcefully exhaled in one second. Serial FEV1 measurements were taken electronically by spirometry. Serial FEV1 measurements of interest for Day 1 were collected at 1, 3, 6, 23 and 24 hours post-dose on Day 1 and for Day 84, the measures were pre-dose (24 hours post-dose of Day 83 morning dose but prior to Day 84's dose) and 1, 3, 6, 23 and 24 hours post dose on Day 84. Baseline is the mean of the two assessments made 30 minutes and 5 minutes pre-dose on Day 1. Change from Baseline was calculated as FEV1 value at the evaluated time point minus Baseline. Analysis performed separately by Visit/Day using a repeated measures model with covariates of treatment, Baseline, smoking status, center group, time, time by Baseline and time by treatment interactions.

Enrollment: 206
Study Start Date: July 2011
Study Completion Date: February 2012
Primary Completion Date: February 2012

Arms	Assigned Interventions
Experimental: GSK573719 active drug	Drug: GSK573719 62.5 mcg Other Names: GSK573719 Drug: GSK573719 125mcg Other Names: GSK573719
Placebo Comparator: Placebo no active drug	Placebo Placebo Other Names: Placebo

Inhaled bronchodilators, such as beta 2 agonists and anticholinergics, and inhaled corticosteroids are the mainstays of therapy in patients diagnosed with COPD. Anticholinergic bronchodilators or long acting muscarinic receptor antagonists function by blocking endogenous airway smooth muscle cholinergic tone. Treatment with anticholinergics has been shown to significantly improve forced expiratory volume in 1 second (FEV1), resting and dynamic lung hyperinflation, symptoms, and exercise capacity in patients with COPD. Currently tiotropium is the only approved long acting muscarinic antagonist available for treatment of COPD.This is a multicenter, randomized, double-blind, placebo-controlled, parallel group study to evaluate the efficacy and safety of GSK573719 Inhalation Powder of 2 doses when administered once-daily via Novel DPI compared with placebo over a treatment period of 12 weeks in subjects with COPD. There will be a total of 8 study clinic visits conducted on an outpatient basis. Subjects who meet the eligibility criteria at Screening (Visit 1) will complete a 5 to 9 days run-in period followed by a 12-week treatment period. There will be 8 clinic visits during three of which serial spirometry will be performed . The total duration of subject participation in the study will be approximately 14 weeks.

This is a Phase III multicenter, randomized, double-blind, placebo-controlled, parallel group study to evaluate the efficacy and safety of GSK573719 Inhalation Powder 62.5 mcg and 125 mcg when administered once-daily via Novel DPI compared with placebo over a treatment period of 12 weeks in subjects with COPD.

Eligible subjects will be randomized 1:1:1 to receive either of the two doses of GSK573719 Inhalation Powder doses or placebo for 12 weeks.

There will be a total of 8 study clinic visits conducted on an outpatient basis. Subjects who meet the eligibility criteria at Screening (Visit 1) will complete a 5 to 9 days run-in period followed by a 12-week treatment period. Clinic visits will be at Screening, Randomization (Visit 2), Day 3 and Weeks 2, 4, 8, and 12, and 1 day after the Week 12 visit (Visits 1 to 8, respectively). A safety follow-up assessment will be conducted by telephone approximately 7 days after the end of the study treatment (FU Phone Contact). The total duration of subject participation, including the follow-up period will be approximately 14 weeks. All subjects will be provided with albuterol/salbutamol for use on an “as-needed” basis throughout the run-in and treatment periods.

Pre-dose spirometry will be conducted at each clinic visit. Six hour post-dose serial spirometry will be conducted at Visit 2 and at Visits 5 and 7. All subjects will be provided with a paper diary for completion everyday throughout the run-in period and 12-week treatment period. Subjects will use the diary to record their daily use of supplemental albuterol/salbutamol and to record any medical problems experienced and any medications used.

At Visit 2 the Baseline Dyspnea Index (BDI) will be administered. The Transition Dyspnea Index (TDI) will be administered at Visits 5, 6, and 7.

Disease specific health status will be evaluated using the St. George’s Respiratory Questionnaire (SGRQ) at Visit 2 and Visits 5, 6 and 7. Vital signs (blood pressure and pulse rate), 12-lead ECGs and standard clinical laboratory tests (hematology and blood biochemistry) including pharmacokinetic samples will be obtained at selected clinic visits.

Approximately 198 subjects will be randomized to ensure at least 168 subjects complete the treatment period.

Eligibility

Ages Eligible for Study: 40 Years and older
Genders Eligible for Study: Both

Inclusion Criteria:

- Diagnosis of COPD
- 10 pack-year or greater history of cigarette smoking
- Post-bronchodilator FEV1/FVC of <0.7
- Predicted FEV1 of 70% of normal or less
- Modified Medical Research Council (mMRC) dyspnea score of 2 or greater

Exclusion Criteria:

- Women who are pregnant, lactating, or planning to become pregnant
- Respiratory disorders other than COPD, including a current diagnosis of asthma
- Clinically significant non-respiratory diseases or abnormalities that are not adequately controlled
- Significant allergy or hypersensitivity to anticholinergics, beta2-agonists, or the excipients of magnesium stereate or lactose used in the inhaler delivery

device

- Hospitalization for COPD or pneumonia within 12 weeks prior to screening
- Lung volume reduction surgery within 12 weeks prior to screening
- Abnormal and clinically significant ECG findings at screening
- Clinically significant laboratory findings at screening
- Use of systemic corticosteroids, antibiotics for respiratory tract infections, high dose inhaled steroids (>1000mcg fluticasone propionate or equivalent), PDE4 inhibitors, tiotropium, oral beta2-agoinists, short- and long-acting inhaled beta2-agonists, inhaled sodium cromoglycate or nedocromil sodium, or investigational medicines for defined time periods prior to the screening visit
- Use of long-term oxygen therapy (12 hours or greater per day)
- Regular use of nebulized treatment with short-acting bronchodilators
- Participation in the acute phase of a pulmonary rehabilitation program
- A know or suspected history of alcohol or drug abuse
- Affiliation with the investigational site
- Previous use of GSK573719 or the combination of GSK573719/GW642444

Contacts and Locations

Locations

United States, Louisiana

GSK Investigational Site

Sunset, Louisiana, United States, 70584

United States, South Carolina

GSK Investigational Site

Easley, South Carolina, United States, 29640

GSK Investigational Site

Spartanburg, South Carolina, United States, 29303

GSK Investigational Site

Union, South Carolina, United States, 29379

Germany

GSK Investigational Site

Berlin, Berlin, Germany, 13187

GSK Investigational Site

Berlin, Berlin, Germany, 10367

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Berlin, Berlin, Germany, 10117
GSK Investigational Site
Berlin, Berlin, Germany, 13086
GSK Investigational Site
Berlin, Berlin, Germany, 10717
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Frankfurt, Hessen, Germany, 60389
GSK Investigational Site
Gelnhausen, Hessen, Germany, 63571
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Kassel, Hessen, Germany, 34121
GSK Investigational Site
Hannover, Niedersachsen, Germany, 30173
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Weyhe-Leeste, Niedersachsen, Germany, 28844
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Goch, Nordrhein-Westfalen, Germany, 47574
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Koeln, Nordrhein-Westfalen, Germany, 51069
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Solingen, Nordrhein-Westfalen, Germany, 42651
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Koblenz, Rheinland-Pfalz, Germany, 56068
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GSK Investigational Site
Kyoto, Japan, 612-0026
GSK Investigational Site
Osaka, Japan, 530-0001
GSK Investigational Site
Tokyo, Japan, 103-0027

Investigators

Study Director:	GSK Clinical Trials	GlaxoSmithKline

More Information

Responsible Party:	GlaxoSmithKline
Study ID Numbers:	115408
Health Authority:	United States: Food and Drug Administration United States: Institutional Review Board Japan: Ministry of Health, Labor and Welfare

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Study Results

Participant Flow

Pre-Assignment Details

Participants (par.) who met eligibility criteria at Screening (Visit 1) completed a 5- to 9-day run-in period and were then randomized to a 12-week treatment period. A total of 246 par. were screened; 206 par. who were eligible were randomized and 206 par. received at least one dose of study drug.

Reporting Groups

	Description
Placebo	Participants received matching placebo once daily (QD) via a dry

	Description
	powder inhaler (DPI) in the morning for 12 weeks.
UMEC 62.5 µg QD	Participants received umeclidinium bromide (UMEC) 62.5 micrograms (µg) QD via a DPI in the morning for 12 weeks.
UMEC 125 µg QD	Participants received UMEC 125 µg QD via a DPI in the morning for 12 weeks.

Overall Study

	Placebo	UMEC 62.5 µg QD	UMEC 125 µg QD
Started	68	69	69
Completed	50	62	56
Not Completed	18	7	13
Adverse Event	0	1	3
Lack of Efficacy	8	5	4
Protocol-defined Stopping Criteria	6	0	5
Lost to Follow-up	0	0	1
Withdrawal by Subject	4	1	0

Baseline Characteristics

Reporting Groups

	Description
Placebo	Participants received matching placebo QD via a DPI in the morning for 12 weeks.
UMEC 62.5 µg	Participants received UMEC 62.5 µg QD via a DPI in the morning for 12 weeks.
UMEC 125 µg	Participants received UMEC 125 µg QD via a DPI in the morning for 12 weeks.

Baseline Measures

	Placebo	UMEC 62.5 µg	UMEC 125 µg	Total
Number of Participants	68	69	69	206
Age, Continuous [units: Years] Mean (Standard Deviation)	62.5 (8.72)	62.3 (9.50)	64.6 (7.96)	63.1 (8.77)
Gender, Male/Female [units: Participants]				
Female	26	25	27	78
Male	42	44	42	128
Race/Ethnicity, Customized [units: Participants]				
African American/African Heritage	1	1	2	4
Asian - Japanese Heritage	8	7	6	21
White - Arabic/North African Heritage	1	1	0	2

	Placebo	UMEC 62.5 µg	UMEC 125 µg	Total
White - White/Caucasian/European Heritage	58	60	61	179

Outcome Measures

1. Primary Outcome Measure:

Measure Title	Change From Baseline (BL) in Trough Forced Expiratory Volume in One Second (FEV1) on Day 85
Measure Description	FEV1 is a measure of lung function and is defined as the maximal amount of air that can be forcefully exhaled in one second. Trough FEV1 measurements were taken electronically by spirometry on Days 2, 14, 28, 56, 84, and 85. Baseline is defined as the mean of the assessments made 30 minutes pre-dose and 5 minutes pre-dose on Treatment Day 1. Trough FEV1 is defined as the mean of the FEV1 values obtained at 23 and 24 hours after the previous morning's dosing (ie., trough FEV1 on Day 85 is the mean of the FEV1 values obtained 23 and 24 hours after the morning dosing on Day 84). Change from Baseline was calculated as the trough FEV1 minus the Baseline. Analysis was performed using a repeated measures model with covariates of treatment, Baseline , smoking status, center group, day, and day by Baseline and day by treatment interactions.
Time Frame	Baseline and Day 85
Safety Issue?	No

Analysis Population Description

Intent-to-Treat (ITT) Population: all randomized par. who received >=1 dose of study drug. Par. analyzed are those with data available at the presented

time point; but, all par. without missing covariate information and with >=1 post-BL measurement were included in the analysis.

Reporting Groups

	Description
Placebo	Participants received matching placebo QD via a DPI in the morning for 12 weeks.
UMEC 62.5 µg	Participants received UMEC 62.5 µg QD via a DPI in the morning for 12 weeks.
UMEC 125 µg	Participants received UMEC 125 µg QD via a DPI in the morning for 12 weeks.

Measured Values

	Placebo	UMEC 62.5 µg	UMEC 125 µg
Number of Participants Analyzed	50	61	55
Change From Baseline (BL) in Trough Forced Expiratory Volume in One Second (FEV1) on Day 85 [units: Liters] Least Squares Mean (Standard Error)	-0.007 (0.0280)	0.120 (0.0257)	0.145 (0.0268)

Statistical Analysis 1 for Change From Baseline (BL) in Trough Forced Expiratory Volume in One Second (FEV1) on Day 85

Groups	Placebo, UMEC 62.5 µg
Method	Mixed Models Analysis
P-Value	<0.001
Other Estimated Parameter [Least squares mean difference]	0.127
95% Confidence Interval	0.052 to 0.202

Additional details about the analysis, such as null hypothesis and power calculation:

[Not specified.]

Additional information, such as whether or not the p-value is adjusted for multiple comparisons and the a priori threshold for statistical significance:

[Not specified.]

Other relevant information, such as adjustments or degrees of freedom:

Restricted maximum likelihood (REML)-based repeated measures approach (MMRM)

Other relevant estimation information:

Least squares mean difference=UMEC 62.5 µg minus Placebo.

Statistical Analysis 2 for Change From Baseline (BL) in Trough Forced Expiratory Volume in One Second (FEV1) on Day 85

Groups	Placebo, UMEC 125 µg
Method	Mixed Models Analysis
P-Value	<0.001
Other Estimated Parameter [Least squares mean difference]	0.152
95% Confidence Interval	0.076 to 0.229

Additional details about the analysis, such as null hypothesis and power calculation:

[Not specified.]

Additional information, such as whether or not the p-value is adjusted for multiple comparisons and the a priori threshold for statistical significance:

[Not specified.]

Other relevant information, such as adjustments or degrees of freedom:

Restricted maximum likelihood (REML)-based repeated measures approach (MMRM)

Other relevant estimation information:

Least squares mean difference=UMEC 125 µg minus Placebo.

2. Secondary Outcome Measure:

Measure Title	Change From Baseline in Weighted Mean (WM) 0-6 Hour FEV1 Obtained Post-dose at Days 1, 28 (Week 4) and 84 (Week 12)
Measure Description	FEV1 is a measure of lung function and is defined as the maximal amount of air that can be forcefully exhaled in one second. The WM FEV1 was derived by calculating the area under the FEV1/time curve (AUC) using the trapezoidal rule, and then dividing the value by the time interval over which the AUC was calculated. The WM was calculated at Days 1, 28, and Day 84 using the 0-6-hour post-dose FEV1 measurements collected on that day, which included pre-dose (Day 1: 30 minutes [min] and 5 min prior to dosing; other serial visits: 23 and 24 hours after the previous morning dose) and post-dose at 1 hour, 3 hours, and 6 hours. Change from Baseline was the WM minus Baseline. Analysis was performed using a repeated measures model with covariates of treatment, Baseline (mean of the two assessments made 30 minutes and 5 minutes pre-dose on Day 1), smoking status, center group, day, and day by Baseline and day by treatment interactions.
Time Frame	Baseline and Days 1, 28 and 84
Safety Issue?	No

Analysis Population Description

ITT Population. All participants with >=1 post-BL assessment and non-missing covariate data are included in the analysis. Different participants may have been analyzed at different time points (represented by n=X, X, X in the category titles), so the overall number of participants analyzed reflects everyone in the ITT Population.

Reporting Groups

	Description
Placebo	Participants received matching placebo QD via a DPI in the morning

	Description
	for 12 weeks.
UMEC 62.5 µg	Participants received UMEC 62.5 µg QD via a DPI in the morning for 12 weeks.
UMEC 125 µg	Participants received UMEC 125 µg QD via a DPI in the morning for 12 weeks.

Measured Values

	Placebo	UMEC 62.5 µg	UMEC 125 µg
Number of Participants Analyzed	68	69	69
Change From Baseline in Weighted Mean (WM) 0-6 Hour FEV1 Obtained Post-dose at Days 1, 28 (Week 4) and 84 (Week 12) [units: Liters] Least Squares Mean (Standard Error)			
Day 1, n=66, 69, 69	0.017 (0.0150)	0.141 (0.0147)	0.164 (0.0147)
Day 28, n= 53, 65, 60	-0.024 (0.0223)	0.141 (0.0206)	0.172 (0.0212)
Day 84, n= 49, 60, 56	-0.003 (0.0271)	0.163 (0.0248)	0.188 (0.0256)

3. Secondary Outcome Measure:

Measure Title	Change From Baseline in Serial FEV1 Over 24 Hours Post-dose at Days 1 and 84 (Week 12)

Measure Description	Pulmonary function was measured by FEV1, defined as the maximal amount of air that can be forcefully exhaled in one second. Serial FEV1 measurements were taken electronically by spirometry. Serial FEV1 measurements of interest for Day 1 were collected at 1, 3, 6, 23 and 24 hours post-dose on Day 1 and for Day 84, the measures were pre-dose (24 hours post-dose of Day 83 morning dose but prior to Day 84's dose) and 1, 3, 6, 23 and 24 hours post dose on Day 84. Baseline is the mean of the two assessments made 30 minutes and 5 minutes pre-dose on Day 1. Change from Baseline was calculated as FEV1 value at the evaluated time point minus Baseline. Analysis performed separately by Visit/Day using a repeated measures model with covariates of treatment, Baseline, smoking status, center group, time, time by Baseline and time by treatment interactions.
Time Frame	Baseline, Day 1 and Day 84
Safety Issue?	No

Analysis Population Description

ITT Population. All participants with >=1 post-BL assessment and non-missing covariate data are included in the analysis. Different participants may have been analyzed at different time points (represented by n=X, X, X in the category titles), so the overall number of participants analyzed reflects everyone in the ITT Population.

Reporting Groups

	Description
Placebo	Participants received matching placebo QD via a DPI in the morning for 12 weeks.
UMEC 62.5 µg	Participants received UMEC 62.5 µg QD via a DPI in the morning for 12 weeks.
UMEC 125 µg	Participants received UMEC 125 µg QD via a DPI in the morning for 12 weeks.

Measured Values

	Placebo	UMEC 62.5 µg	UMEC 125 µg
Number of Participants Analyzed	68	69	69
Change From Baseline in Serial FEV1 Over 24 Hours Post-dose at Days 1 and 84 (Week 12) [units: Liters] Least Squares Mean (Standard Error)			
Day 1, 1 hour, n=68, 69, 69	-0.001 (0.0148)	0.132 (0.0147)	0.142 (0.0147)
Day 1, 3 hours ,n=68, 69, 69	0.035 (0.0187)	0.165 (0.0186)	0.210 (0.0186)
Day 1, 6 hours, n=66, 69, 69	0.000 (0.0206)	0.156 (0.0203)	0.169 (0.0203)
Day 1, 23 hours, n=67, 69, 65	-0.027 (0.0178)	0.070 (0.0176)	0.113 (0.0180)
Day 1, 24 hours, n=67, 69, 66	-0.020 (0.0190)	0.099 (0.0188)	0.151 (0.0191)
Day 84, Pre-dose, n=50, 60, 56	0.002 (0.0299)	0.155 (0.0269)	0.177 (0.0283)
Day 84, 1 hour,n=50, 60, 56	-0.025 (0.0299)	0.167 (0.0270)	0.199 (0.0283)
Day 84, 3 hours, n=50, 61, 56	0.012 (0.0301)	0.189 (0.0271)	0.219 (0.0285)
Day 84, 6 hours,n=49, 61, 56	0.006 (0.0286)	0.159 (0.0257)	0.178 (0.0270)
Day 84, 23 hours, n=50, 60, 55	-0.019	0.106	0.142

	Placebo	UMEC 62.5 µg	UMEC 125 µg
	(0.0301)	(0.0271)	(0.0286)
Day 84, 24 hours, n=50, 61, 55	0.020 (0.0299)	0.142 (0.0269)	0.170 (0.0284)

Reported Adverse Events

Reporting Groups

	Description
Placebo	Participants received matching placebo QD via a DPI in the morning for 12 weeks.
UMEC 62.5 µg	Participants received UMEC 62.5 µg QD via a DPI in the morning for 12 weeks.
UMEC 125 µg	Participants received UMEC 125 µg QD via a DPI in the morning for 12 weeks.

Time Frame

On-treatment serious adverse events (SAEs) and non-serious adverse events (AEs) were collected from the start of study medication until the end of treatment (up to 12 weeks).

Additional Description

SAEs and non-serious AEs were collected in members of the ITT Population, comprised of all participants who had received at least one dose of randomized study medication during treatment period.

Serious Adverse Events

	Placebo	UMEC 62.5 µg	UMEC 125 µg
Total # participants affected/at risk	1/68 (1.47%)	1/69 (1.45%)	2/69 (2.9%)
Cardiac disorders			
Coronary artery stenosis †[A]			
# participants affected/at risk	0/68 (0%)	0/69 (0%)	1/69 (1.45%)
# events			
General disorders			
Non-cardiac chest pain †[A]			
# participants affected/at risk	1/68 (1.47%)	0/69 (0%)	0/69 (0%)
# events			
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Lung neoplasm malignant †[A]			
# participants affected/at risk	0/68 (0%)	1/69 (1.45%)	0/69 (0%)
# events			
Respiratory, thoracic and mediastinal disorders			

	Placebo	UMEC 62.5 µg	UMEC 125 µg
Chronic obstructive pulmonary disease † [A]			
# participants affected/at risk	0/68 (0%)	0/69 (0%)	1/69 (1.45%)
# events			

† Indicates events were collected by systematic assessment.

A Term from vocabulary, MedDRA

Other Adverse Events

Frequency Threshold Above Which Other Adverse Events are Reported: 3%

	Placebo	UMEC 62.5 µg	UMEC 125 µg
Total # participants affected/at risk	16/68 (23.53%)	12/69 (17.39%)	19/69 (27.54%)
Infections and infestations			
Nasopharyngitis † [A]			
# participants affected/at risk	7/68 (10.29%)	8/69 (11.59%)	7/69 (10.14%)
# events			
Musculoskeletal and connective tissue disorders			
Back pain † [A]			
# participants affected/at	4/68 (5.88%)	2/69 (2.9%)	0/69 (0%)

	Placebo	UMEC 62.5 µg	UMEC 125 µg
risk			
# events			
Nervous system disorders			
Headache † [A]			
# participants affected/at risk	7/68 (10.29%)	5/69 (7.25%)	10/69 (14.49%)
# events			
Respiratory, thoracic and mediastinal disorders			
Cough † [A]			
# participants affected/at risk	1/68 (1.47%)	0/69 (0%)	5/69 (7.25%)
# events			

† Indicates events were collected by systematic assessment.

A Term from vocabulary, MedDRA

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.

GSK agreements may vary with individual investigators, but will not prohibit any investigator from publishing. GSK supports the

publication of results from all centers of a multi-center trial but requests that reports based on single-site data not precede the primary publication of the entire clinical trial.

Limitations and Caveats:

Results Point of Contact:

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