



## Clinical trial results:

**A randomised, double-blind (sponsor unblinded), placebocontrolled, parallel-group, multicentre study to evaluate the efficacy and safety of GSK2269557 administered in addition to standard of care in adult subjects diagnosed with an acute exacerbation of Chronic Obstructive Pulmonary Disease.**

### Summary

|                          |                |
|--------------------------|----------------|
| EudraCT number           | 2014-001972-70 |
| Trial protocol           | BE NL DK RO    |
| Global end of trial date | 25 April 2016  |

### Results information

|                                |                  |
|--------------------------------|------------------|
| Result version number          | v1               |
| This version publication date  | 02 November 2016 |
| First version publication date | 02 November 2016 |

### Trial information

#### Trial identification

|                       |        |
|-----------------------|--------|
| Sponsor protocol code | 116678 |
|-----------------------|--------|

#### Additional study identifiers

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

Notes:

### Sponsors

|                              |  |
|------------------------------|--|
| Sponsor organisation name    | GlaxoSmithKline  |
| Sponsor organisation address | 980 Great West Road, Brentford, Middlesex, United Kingdom, |
| Public contact               | GSK Response Center, GlaxoSmithKline, 1 866-435-7343,      |
| Scientific contact           | GSK Response Center, GlaxoSmithKline, 1 866-435-7343,      |

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? | No |

Notes:

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**Results analysis stage**

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|  |                  |
|--|------------------|
| Analysis stage                                       | Final            |
| Date of interim/final analysis                       | 28 July 2016     |
| Is this the analysis of the primary completion data? | Yes              |
| Primary completion date                              | 19 February 2016 |
| Global end of trial reached?                         | Yes              |
| Global end of trial date                             | 25 April 2016    |
| Was the trial ended prematurely?                     | No               |

Notes:

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**General information about the trial**

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Main objective of the trial:

To evaluate the effect of once daily repeat inhaled doses of GSK2269557 on lung parameters derived from HRCT scans in subjects with acute exacerbation of COPD, compared to placebo

Protection of trial subjects:

The study protocol has included the following stopping criteria:

Liver Chemistry; QTc; Severe signs or symptoms, or significant changes in any of the safety assessments, that put the safety of the individual at risk (e.g. ECG, vital signs, laboratory tests, spirometry assessments, etc), as judged by the Principal Investigator in consultation with the Medical Monitor if necessary; Participants will be withdrawn from the study if confusion, lethargy, acute respiratory acidosis (pH < 7.30), or need for invasive mechanical ventilation occurred; If adverse events, unrelated to COPD exacerbation, which are of moderate or severe intensity and are consistent across participants in the group, or if unacceptable pharmacological effects, reasonably attributable in the opinion of the investigator to dosing with GSK2269557, are observed in more than 30 % of the participants then the study will be halted and no further subject will be dosed until a full safety review of the study has taken place.

A subject may withdraw from study treatment at any time at his/her own request, or may be withdrawn at any time at the discretion of the investigator for safety, behavioural or administrative reasons.

Background therapy: -

Evidence for comparator: -

|   |               |
|---|---------------|
| Actual start date of recruitment                          | 31 March 2015 |
| Long term follow-up planned                               | No            |
| Independent data monitoring committee (IDMC) involvement? | No            |

Notes:

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**Population of trial subjects**

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**Subjects enrolled per country**

|                                      |                        |
|--------------------------------------|------------------------|
| Country: Number of subjects enrolled | Belgium: 14            |
| Country: Number of subjects enrolled | Denmark: 27            |
| Country: Number of subjects enrolled | Netherlands: 8         |
| Country: Number of subjects enrolled | Romania: 13            |
| Country: Number of subjects enrolled | Russian Federation: 64 |
| Worldwide total number of subjects   | 126                    |
| EEA total number of subjects         | 62                     |

Notes:

| <b>Subjects enrolled per age group</b>    |    |
|---|----|
| 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)                 | 0  |
| Adults (18-64 years)                      | 58 |
| From 65 to 84 years                       | 68 |
| 85 years and over                         | 0  |

## Subject disposition

### Recruitment

Recruitment details:

The study consisted of a screening visit, a 12-week treatment period, and a 1-2 week post-treatment follow-up. The total duration of the study was 13-14 weeks including the screening visit.

### Pre-assignment

Screening details:

Approximately 120 participants with an acute exacerbation of chronic obstructive pulmonary disease (COPD) were randomized (1:1) to GSK 2269557 1000 micrograms (µg) and placebo such that approximately 100 participants complete the study. Participants were also stratified by whether they were willing and able to provide sputum samples at screening.

### Period 1

|                              |                                |
|------------------------------|--------------------------------|
| Period 1 title               | Overall Study (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     |
| <b>Arm title</b>             | Placebo |

Arm description:

Participants received placebo two inhalations per day administered via a dry powder inhaler for a duration of 84 days.

|  |                   |
|--|-------------------|
| Arm type                               | Experimental      |
| Investigational medicinal product name | Placebo           |
| Investigational medicinal product code |                   |
| Other name                             |                   |
| Pharmaceutical forms                   | Inhalation powder |
| Routes of administration               | Inhalation use    |

Dosage and administration details:

2 inhalations to be taken every day before breakfast (with the exception of days when the participants have a planned visit to the clinic. On those days, they will be dosed at the clinic). The subject should hold their breath for 10 seconds before exhaling. Inhalations should be taken approximately 30 seconds apart.

|                  |                     |
|------------------|---------------------|
| <b>Arm title</b> | GSK2269557 1000 mcg |
|------------------|---------------------|

Arm description:

Participants received 1000 mcg of GSK2269557 two inhalations per day administered via a dry powder inhaler for a duration of 84 days.

|  |                   |
|--|-------------------|
| Arm type                               | Placebo           |
| Investigational medicinal product name | GSK2269557        |
| Investigational medicinal product code |                   |
| Other name                             |                   |
| Pharmaceutical forms                   | Inhalation powder |
| Routes of administration               | Inhalation use    |

Dosage and administration details:

2 inhalations to be taken every day before breakfast (with the exception of days when the participants have a planned visit to the clinic. On those days, they will be dosed at the clinic). The subject should hold their breath for 10 seconds before exhaling. Inhalations should be taken approximately 30 seconds apart.

| <b>Number of subjects in period 1</b>  | Placebo | GSK2269557 1000 mcg |
|--|---------|---------------------|
| Started                                | 63      | 63                  |
| Completed                              | 49      | 55                  |
| Not completed                          | 14      | 8                   |
| Physician decision                     | 2       | 1                   |
| Consent withdrawn by subject           | 4       | 2                   |
| Adverse event, non-fatal               | 5       | 5                   |
| Met Protocol Defined Stopping Criteria | 1       | -                   |
| Lost to follow-up                      | 2       | -                   |

## Baseline characteristics

### Reporting groups

|   |                     |
|---|---------------------|
| Reporting group title   | Placebo             |
| Reporting group description:<br>Participants received placebo two inhalations per day administered via a dry powder inhaler for a duration of 84 days.                |                     |
| Reporting group title   | GSK2269557 1000 mcg |
| Reporting group description:<br>Participants received 1000 mcg of GSK2269557 two inhalations per day administered via a dry powder inhaler for a duration of 84 days. |                     |

| Reporting group values             | Placebo | GSK2269557 1000 mcg | Total |
|------------------------------------|---------|---------------------|-------|
| Number of subjects                 | 63      | 63                  | 126   |
| Age categorical<br>Units: Subjects |         |                     |       |

|   |                |                |     |
|---|----------------|----------------|-----|
| Age continuous  |                |                |     |
| Age continuous description                            |                |                |     |
| Units: years<br>arithmetic mean<br>standard deviation | 64.9<br>± 7.88 | 65.6<br>± 7.14 | -   |
| Gender categorical                                    |                |                |     |
| Gender categorical description                        |                |                |     |
| Units: Subjects                                       |                |                |     |
| Female  | 17             | 17             | 34  |
| Male  | 46             | 46             | 92  |
| Race/Ethnicity, Customized<br>Units: Subjects         |                |                |     |
| American Indian or Alaskan Native                     | 0              | 1              | 1   |
| White - White/Caucasian/European Heritage             | 63             | 62             | 125 |

## End points

### End points reporting groups

|   |                     |
|---|---------------------|
| Reporting group title   | Placebo             |
| Reporting group description:  |                     |
| Participants received placebo two inhalations per day administered via a dry powder inhaler for a duration of 84 days.                |                     |
| Reporting group title   | GSK2269557 1000 mcg |
| Reporting group description:  |                     |
| Participants received 1000 mcg of GSK2269557 two inhalations per day administered via a dry powder inhaler for a duration of 84 days. |                     |

### Primary: Change from Baseline in specific imaging airway volume (siVaw), measured at FRC and TLC scan conditions, presented in longitudinal and scan trimmed scan types, measured in 5 lobes and 5 regions at Screening, Day 12 and Day 28

|   |   |
|---|---|
| End point title   | Change from Baseline in specific imaging airway volume (siVaw), measured at FRC and TLC scan conditions, presented in longitudinal and scan trimmed scan types, measured in 5 lobes and 5 regions at Screening, Day 12 and Day 28 |
| End point description:  |   |
| siVaw is a measure of the volume in an individual's airway corrected for their lobar volume derived from the high resolution computed tomography (HRCT). It was measured at functional residual volume (FRC) and total lung capacity (TLC). Data was collected at longitudinal time points: Screening, Day 12 & Day 28 and at each time point for scan trimmed pairs: SCRD12, SCRD28 & D12D28. At each time point it was measure at 5 lobes (RUL, LUL, RML, RLL & LLL) and 5 Regions (Upper, Lower, Central, Distal & Total). For longitudinal time points and SCRD12 & SCRD28 scan trimmed pairs the baseline is screening, for D12D28 scan trimmed pair the baseline is D12. Change from baseline is the post-Baseline value minus the Baseline value. Only participants available at the specified time point were analysed (represented by n=X1, X2 in the category title). |   |
| End point type  | Primary   |
| End point timeframe:  |   |
| Baseline, Day 12 and Day 28   |   |

| End point values                               | Placebo                | GSK2269557 1000 mcg    |  |  |
|--|------------------------|------------------------|--|--|
| Subject group type                             | Reporting group        | Reporting group        |  |  |
| Number of subjects analysed                    | 62 <sup>[1]</sup>      | 63                     |  |  |
| Units: Milliliter/Liter (mL/L)                 |                        |                        |  |  |
| geometric mean (confidence interval 95%)       |                        |                        |  |  |
| FRC; Longitudinal; Lobes; RUL; D12 , n =54, 57 | 1.033 (0.851 to 1.255) | 1.052 (0.924 to 1.197) |  |  |
| FRC; Longitudinal; Lobes; RUL; D28 , n =56, 56 | 0.983 (0.775 to 1.246) | 1.075 (0.94 to 1.23)   |  |  |
| FRC; Longitudinal; Lobes; LUL; D12 , n=56, 59  | 0.975 (0.817 to 1.165) | 1 (0.877 to 1.14)      |  |  |
| FRC; Longitudinal; Lobes; LUL; D28 , n =56, 58 | 0.893 (0.745 to 1.07)  | 1.09 (0.932 to 1.275)  |  |  |
| FRC; Longitudinal; Lobes; RML; D12 , n =52, 58 | 0.956 (0.806 to 1.135) | 0.871 (0.691 to 1.097) |  |  |

|  |                        |                        |  |  |
|--|------------------------|------------------------|--|--|
| FRC; Longitudinal; Lobes; RML; D28 , n=53, 57      | 0.853 (0.677 to 1.075) | 1.006 (0.867 to 1.167) |  |  |
| FRC; Longitudinal; Lobes; RLL; D12 , n =54, 59     | 0.908 (0.684 to 1.204) | 1.115 (0.885 to 1.405) |  |  |
| FRC; Longitudinal; Lobes; RLL; D28 , n =55, 58     | 0.871 (0.652 to 1.164) | 1.167 (0.975 to 1.397) |  |  |
| FRC; Longitudinal; Lobes; LLL; D12 , n =53, 58     | 1.051 (0.885 to 1.248) | 1.087 (0.892 to 1.323) |  |  |
| FRC; Longitudinal; Lobes; LLL; D28 ,n =54, 58      | 1 (0.806 to 1.242)     | 1.199 (0.999 to 1.438) |  |  |
| FRC; Scan Trimmed; Lobes; RUL; SCRD12 , n =54, 57  | 1.049 (0.956 to 1.151) | 1.002 (0.921 to 1.09)  |  |  |
| FRC; Scan Trimmed; Lobes; RUL; SCRD28 , n=56, 56   | 0.999 (0.892 to 1.118) | 0.993 (0.91 to 1.083)  |  |  |
| FRC; Scan Trimmed; Lobes; RUL; D12D28 , n =51, 55  | 0.931 (0.858 to 1.01)  | 0.995 (0.933 to 1.062) |  |  |
| FRC; Scan Trimmed; Lobes; LUL; SCRD12 , n =56, 59  | 0.979 (0.891 to 1.077) | 1.012 (0.938 to 1.092) |  |  |
| FRC; Scan Trimmed; Lobes; LUL; SCRD28 , n=56, 58   | 0.952 (0.862 to 1.051) | 1.018 (0.934 to 1.11)  |  |  |
| FRC; Scan Trimmed; Lobes; LUL; D12D28 , n =53, 57  | 0.973 (0.893 to 1.061) | 1.014 (0.942 to 1.09)  |  |  |
| FRC; Scan Trimmed; Lobes; RML; SCRD12 , n =52, 58  | 0.924 (0.811 to 1.052) | 0.977 (0.878 to 1.087) |  |  |
| FRC; Scan Trimmed; Lobes; RML; SCRD28 , n=53, 57   | 0.927 (0.832 to 1.034) | 0.967 (0.872 to 1.073) |  |  |
| FRC; Scan Trimmed; Lobes; RML; D12D28 , n =52, 56  | 0.927 (0.83 to 1.035)  | 1.023 (0.925 to 1.131) |  |  |
| FRC; Scan Trimmed; Lobes; RLL; SCRD12 , n =54, 59  | 0.987 (0.863 to 1.129) | 1 (0.893 to 1.121)     |  |  |
| FRC; Scan Trimmed; Lobes; RLL; SCRD28 , n=55, 58   | 0.972 (0.815 to 1.159) | 1.014 (0.916 to 1.121) |  |  |
| FRC; Scan Trimmed; Lobes; RLL; D12D28 , n =52, 57  | 0.92 (0.829 to 1.02)   | 1.015 (0.918 to 1.121) |  |  |
| FRC; Scan Trimmed; Lobes; LLL; SCRD12 , n =53, 58  | 1.031 (0.925 to 1.149) | 1.05 (0.939 to 1.173)  |  |  |
| FRC; Scan Trimmed; Lobes; LLL; SCRD28 , n=54, 58   | 1.034 (0.893 to 1.198) | 1.064 (0.958 to 1.18)  |  |  |
| FRC; Scan Trimmed; Lobes; LLL; D12D28 , n =51, 56  | 0.978 (0.897 to 1.066) | 1.055 (0.953 to 1.168) |  |  |
| FRC; Longitudinal;Region; Upper; D12 , n =56, 59   | 0.952 (0.809 to 1.12)  | 1.004 (0.891 to 1.132) |  |  |
| FRC; Longitudinal; Region; Upper; D28 , n =56, 58  | 0.918 (0.769 to 1.096) | 1.066 (0.939 to 1.21)  |  |  |
| FRC; Longitudinal; Region; Lower; D12 , n=54, 59   | 0.989 (0.819 to 1.194) | 1.065 (0.878 to 1.291) |  |  |
| FRC; Longitudinal; Region; Lower; D28 , n =55, 58  | 0.952 (0.772 to 1.172) | 1.15 (0.979 to 1.351)  |  |  |
| FRC; Longitudinal; Region;Central; D12 , n =56, 59 | 0.969 (0.886 to 1.06)  | 1.021 (0.963 to 1.083) |  |  |
| FRC; Longitudinal;Region; Central; D28 , n=56, 58  | 0.992 (0.918 to 1.071) | 1.002 (0.958 to 1.05)  |  |  |
| FRC; Longitudinal; Region; Distal; D12 , n =56, 59 | 0.963 (0.801 to 1.158) | 1.027 (0.889 to 1.188) |  |  |
| FRC; Longitudinal; Region; Distal D28 , n =56, 58  | 0.939 (0.778 to 1.134) | 1.098 (0.959 to 1.258) |  |  |
| FRC; Longitudinal; Region;Total; D12, n =56, 59    | 0.97 (0.881 to 1.068)  | 1.018 (0.955 to 1.085) |  |  |
| FRC; Longitudinal; Region; Total; D28 ,n =56, 58   | 0.989 (0.911 to 1.074) | 1.009 (0.959 to 1.061) |  |  |
| FRC; Scan Trimmed; Region;Upper; SCRD12 ,n =56, 59 | 0.989 (0.899 to 1.088) | 1.001 (0.929 to 1.078) |  |  |



|  |                        |                        |  |  |
|--|------------------------|------------------------|--|--|
| FRC; Scan Trimmed; Region;Upper; SCRD28 ,n=56, 58  | 0.962 (0.878 to 1.054) | 1.007 (0.925 to 1.096) |  |  |
| FRC; Scan Trimmed; Region;Upper; D12D28 ,n =53, 57 | 0.967 (0.889 to 1.051) | 1.011 (0.949 to 1.077) |  |  |
| FRC; Scan Trimmed; Region;Lower; SCRD12 ,n =54, 59 | 1.019 (0.92 to 1.128)  | 1.028 (0.924 to 1.145) |  |  |
| FRC; Scan Trimmed; Region; Lower; SCRD28 ,n=55, 58 | 1.002 (0.868 to 1.157) | 1.039 (0.944 to 1.144) |  |  |
| FRC; Scan Trimmed; Region;Lower; D12D28 ,n =52, 57 | 0.953 (0.873 to 1.04)  | 1.008 (0.92 to 1.104)  |  |  |
| FRC;Scan Trimmed;Region;Central; SCRD12 ,n =56, 59 | 0.988 (0.911 to 1.072) | 1.022 (0.964 to 1.084) |  |  |
| FRC;Scan Trimmed; Region Central; SCRD28 ,n=56, 58 | 1.002 (0.932 to 1.078) | 0.999 (0.954 to 1.047) |  |  |
| FRC;Scan Trimmed;Region Central; D12D28 ,n =53, 57 | 0.998 (0.942 to 1.057) | 0.977 (0.932 to 1.025) |  |  |
| FRC;Scan Trimmed; Region;Distal; SCRD12 ,n =56, 59 | 0.998 (0.903 to 1.104) | 1.009 (0.925 to 1.099) |  |  |
| FRC;Scan Trimmed;Region; Distal; SCRD28 , n=56, 58 | 0.984 (0.883 to 1.095) | 1.021 (0.936 to 1.115) |  |  |
| FRC;Scan Trimmed;Region;Distal; D12D28 , n =53, 57 | 0.963 (0.887 to 1.044) | 1.019 (0.95 to 1.092)  |  |  |
| FRC;Scan Trimmed; Region;Total; SCRD12 , n =56, 59 | 0.989 (0.911 to 1.074) | 1.019 (0.96 to 1.082)  |  |  |
| FRC;Scan Trimmed;Region;Total; SCRD28 , n=56, 58   | 1.002 (0.931 to 1.078) | 1 (0.953 to 1.049)     |  |  |
| Trimmed;Region;Total; D12D28 , n =53, 57           | 0.995 (0.94 to 1.054)  | 0.982 (0.936 to 1.03)  |  |  |
| TLC; Longitudinal; Lobes; RUL; D12 , n =58, 57     | 1.048 (0.951 to 1.154) | 0.976 (0.912 to 1.043) |  |  |
| TLC; Longitudinal; Lobes; RUL; D28 , n =56, 57     | 1.045 (0.927 to 1.179) | 0.979 (0.908 to 1.055) |  |  |
| TLC; Longitudinal; Lobes; LUL; D12 , n=58, 59      | 1.043 (0.933 to 1.166) | 1.007 (0.936 to 1.083) |  |  |
| TLC; Longitudinal; Lobes; LUL; D28 , n =56, 59     | 1.078 (0.922 to 1.26)  | 1.027 (0.947 to 1.115) |  |  |
| TLC; Longitudinal; Lobes; RML; D12 , n =57, 58     | 1.087 (0.906 to 1.304) | 0.894 (0.787 to 1.016) |  |  |
| TLC; Longitudinal; Lobes; RML; D28 , n=56, 58      | 1.084 (0.893 to 1.317) | 0.903 (0.808 to 1.008) |  |  |
| TLC; Longitudinal; Lobes; RLL; D12 , n =58, 59     | 1.038 (0.884 to 1.219) | 0.906 (0.82 to 1.001)  |  |  |
| TLC; Longitudinal; Lobes; RLL; D28 , n =56, 59     | 1.014 (0.839 to 1.227) | 0.948 (0.858 to 1.048) |  |  |
| TLC; Longitudinal; Lobes; LLL; D12 , n =57, 59     | 1.074 (0.917 to 1.258) | 0.934 (0.844 to 1.035) |  |  |
| TLC; Longitudinal; Lobes; LLL; D28 ,n =55, 59      | 1.075 (0.901 to 1.282) | 0.993 (0.891 to 1.107) |  |  |
| TLC; Scan Trimmed; Lobes; RUL; SCRD12 , n =58, 57  | 1.04 (0.978 to 1.105)  | 0.988 (0.94 to 1.038)  |  |  |
| TLC; Scan Trimmed; Lobes; RUL; SCRD28 , n=56, 57   | 1.02 (0.949 to 1.097)  | 0.981 (0.925 to 1.04)  |  |  |
| TLC; Scan Trimmed; Lobes; RUL; D12D28 , n =55, 56  | 0.971 (0.908 to 1.039) | 1.002 (0.956 to 1.05)  |  |  |
| TLC; Scan Trimmed; Lobes; LUL; SCRD12 , n =58, 59  | 1.022 (0.961 to 1.088) | 1.001 (0.95 to 1.055)  |  |  |
| TLC; Scan Trimmed; Lobes; LUL; SCRD28 , n=56, 59   | 1.035 (0.962 to 1.113) | 0.991 (0.933 to 1.052) |  |  |
| TLC; Scan Trimmed; Lobes; LUL; D12D28 , n =55, 58  | 1.007 (0.933 to 1.086) | 1.002 (0.956 to 1.05)  |  |  |
| TLC; Scan Trimmed; Lobes; RML; SCRD12 , n =57, 58  | 1.029 (0.948 to 1.116) | 0.934 (0.87 to 1.003)  |  |  |

|  |                        |                        |  |  |
|--|------------------------|------------------------|--|--|
| TLC; Scan Trimmed; Lobes; RML; SCRD28 , n=56, 58       | 1.02 (0.933 to 1.116)  | 0.932 (0.877 to 0.991) |  |  |
| TLC; Scan Trimmed; Lobes; RML; D12D28 , n =55, 57      | 0.98 (0.904 to 1.063)  | 1.008 (0.942 to 1.078) |  |  |
| TLC; Scan Trimmed; Lobes; RLL; SCRD12 , n =58, 59      | 1.022 (0.94 to 1.112)  | 0.932 (0.871 to 0.996) |  |  |
| TLC; Scan Trimmed; Lobes; RLL; SCRD28 , n=56, 59       | 0.984 (0.897 to 1.078) | 0.944 (0.884 to 1.008) |  |  |
| TLC; Scan Trimmed; Lobes; RLL; D12D28 , n =55, 58      | 0.962 (0.881 to 1.051) | 1.027 (0.98 to 1.076)  |  |  |
| TLC; Scan Trimmed; Lobes; LLL; SCRD12 , n =57, 59      | 1.024 (0.939 to 1.117) | 0.967 (0.908 to 1.03)  |  |  |
| TLC; Scan Trimmed; Lobes; LLL; SCRD28 , n=55, 59       | 1.025 (0.933 to 1.125) | 0.972 (0.907 to 1.043) |  |  |
| TLC; Scan Trimmed; Lobes; LLL; D12D28 , n =54, 58      | 0.984 (0.911 to 1.062) | 1.017 (0.97 to 1.065)  |  |  |
| TLC; Longitudinal; Region; Upper; D12 , n =58, 59      | 1.031 (0.935 to 1.137) | 0.983 (0.922 to 1.049) |  |  |
| TLC; Longitudinal; Region; Upper; D28 , n =56, 59      | 1.046 (0.918 to 1.191) | 0.995 (0.928 to 1.067) |  |  |
| TLC; Longitudinal; Region; Lower; D12 , n=58, 59       | 1.051 (0.909 to 1.215) | 0.924 (0.84 to 1.017)  |  |  |
| TLC; Longitudinal; Region; Lower; D28 , n =56, 59      | 1.037 (0.879 to 1.223) | 0.974 (0.883 to 1.074) |  |  |
| TLC; Longitudinal; Region; Central; D12 , n =58, 59    | 1.001 (0.971 to 1.033) | 0.991 (0.971 to 1.012) |  |  |
| TLC; Longitudinal; Region; Central; D28 , n=56, 59     | 1.006 (0.979 to 1.033) | 0.992 (0.972 to 1.013) |  |  |
| TLC; Longitudinal; Region; Distal; D12 , n =58, 59     | 1.043 (0.931 to 1.168) | 0.949 (0.883 to 1.021) |  |  |
| TLC; Longitudinal; Region; Distal D28 , n =56, 59      | 1.039 (0.902 to 1.197) | 0.982 (0.91 to 1.06)   |  |  |
| TLC; Longitudinal; Region; Total; D12, n =58, 59       | 1.009 (0.969 to 1.051) | 0.982 (0.958 to 1.006) |  |  |
| TLC; Longitudinal; Region; Total; D28 , n =56, 59      | 1.005 (0.967 to 1.044) | 0.988 (0.964 to 1.013) |  |  |
| TLC; Scan Trimmed; Region; Upper; SCRD12 , n =58, 59   | 1.028 (0.969 to 1.09)  | 0.992 (0.944 to 1.041) |  |  |
| TLC; Scan Trimmed; Region; Upper; SCRD28 , n=56, 59    | 1.021 (0.953 to 1.095) | 0.984 (0.932 to 1.04)  |  |  |
| TLC; Scan Trimmed; Region; Upper; D12D28 , n =55, 58   | 0.985 (0.922 to 1.054) | 1.003 (0.962 to 1.046) |  |  |
| TLC; Scan Trimmed; Region; Lower; SCRD12 , n =58, 59   | 1.021 (0.943 to 1.105) | 0.954 (0.897 to 1.014) |  |  |
| TLC; Scan Trimmed; Region; Lower; SCRD28 , n=56, 59    | 0.996 (0.916 to 1.083) | 0.96 (0.899 to 1.025)  |  |  |
| TLC; Scan Trimmed; Region; Lower; D12D28 , n =55, 58   | 0.972 (0.899 to 1.052) | 1.018 (0.977 to 1.06)  |  |  |
| TLC; Scan Trimmed; Region; Central; SCRD12 , n =58, 59 | 1 (0.972 to 1.029)     | 0.997 (0.975 to 1.02)  |  |  |
| TLC; Scan Trimmed; Region Central; SCRD28 , n=56, 59   | 1.005 (0.981 to 1.03)  | 0.995 (0.972 to 1.018) |  |  |
| TLC; Scan Trimmed; Region Central; D12D28 , n =55, 58  | 1.004 (0.981 to 1.028) | 0.998 (0.984 to 1.012) |  |  |
| TLC; Scan Trimmed; Region; Distal; SCRD12 , n =58, 59  | 1.025 (0.96 to 1.095)  | 0.972 (0.922 to 1.025) |  |  |
| TLC; Scan Trimmed; Region; Distal; SCRD28 , n=56, 59   | 1.008 (0.936 to 1.086) | 0.972 (0.919 to 1.029) |  |  |
| TLC; Scan Trimmed; Region; Distal; D12D28 , n =55, 58  | 0.978 (0.912 to 1.05)  | 1.011 (0.973 to 1.051) |  |  |
| TLC; Scan Trimmed; Region; Total; SCRD12 , n =58, 59   | 1.005 (0.973 to 1.037) | 0.991 (0.967 to 1.017) |  |  |

|   |                           |                           |  |  |
|---|---------------------------|---------------------------|--|--|
| TLC; Scan Trimmed; Region; Total;<br>SCRD28 , n=56, 59  | 1.004 (0.976<br>to 1.032) | 0.989 (0.965<br>to 1.014) |  |  |
| TLC; Scan Trimmed; Region; Total;<br>D12D28 , n =55, 58 | 0.997 (0.97 to<br>1.025)  | 1 (0.984 to<br>1.017)     |  |  |

Notes:

[1] - Intention to Treat (ITT) Population excluding the subject with a pacemaker.

## Statistical analyses

| Statistical analysis title | Statistical analysis 1 |
|----------------------------|------------------------|
|----------------------------|------------------------|

Statistical analysis description:

FRC; Longitudinal; Lobes; RUL; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other <sup>[2]</sup>             |
| P-value                                 | = 60.66 <sup>[3]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.85                             |
| upper limit                             | 1.25                             |

Notes:

[2] - Comment for all statistical analysis, where method = Bayesian repeated measures model: Non-informative priors used for all modelling parameters. Unstructured covariance matrix fitted, accounting for correlation within region and visit.

[3] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

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

Statistical analysis description:

FRC; Longitudinal; Lobes; RUL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 95.21 <sup>[4]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.19                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.47                             |

Notes:

[4] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|  |                                  |
|--|----------------------------------|
| <b>Statistical analysis title</b>  | Statistical analysis 3           |
| Statistical analysis description:<br>FRC; Longitudinal; Lobes; LUL; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                                  |
| Comparison groups  | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis  | 125                              |
| Analysis specification   | Pre-specified                    |
| Analysis type  | other                            |
| P-value  | = 74.29 <sup>[5]</sup>           |
| Method   | Bayesian repeated measures model |
| Parameter estimate   | Posterior Median Ratio           |
| Point estimate   | 1.06                             |
| Confidence interval  |                                  |
| level  | 95 %                             |
| sides  | 2-sided                          |
| lower limit  | 0.88                             |
| upper limit  | 1.28                             |

Notes:

[5] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|  |                                  |
|--|----------------------------------|
| <b>Statistical analysis title</b>  | Statistical analysis 4           |
| Statistical analysis description:<br>FRC; Longitudinal; Lobes; LUL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                                  |
| Comparison groups  | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis  | 125                              |
| Analysis specification   | Pre-specified                    |
| Analysis type  | other                            |
| P-value  | = 99.48 <sup>[6]</sup>           |
| Method   | Bayesian repeated measures model |
| Parameter estimate   | Posterior Median Ratio           |
| Point estimate   | 1.29                             |
| Confidence interval  |                                  |
| level  | 95 %                             |
| sides  | 2-sided                          |
| lower limit  | 1.06                             |
| upper limit  | 1.58                             |

Notes:

[6] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|  |                               |
|--|-------------------------------|
| <b>Statistical analysis title</b>  | Statistical analysis 5        |
| Statistical analysis description:<br>FRC; Longitudinal; Lobes; RML; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                               |
| Comparison groups  | Placebo v GSK2269557 1000 mcg |

|   |                                  |
|---|----------------------------------|
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 13.98 <sup>[7]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.87                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.66                             |
| upper limit                             | 1.13                             |

Notes:

[7] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 6 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Longitudinal; Lobes; RML; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 97.92 <sup>[8]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.28                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 1.01                             |
| upper limit                             | 1.62                             |

Notes:

[8] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 7 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Longitudinal; Lobes; RLL; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 80.24 <sup>[9]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.14                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.84    |
| upper limit         | 1.54    |

Notes:

[9] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 8 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Longitudinal; Lobes; RLL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 97.79 <sup>[10]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.3                              |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 1.01    |
| upper limit | 1.66    |

Notes:

[10] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 9 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Longitudinal; Lobes; LLL; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 51.27 <sup>[11]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.81    |
| upper limit | 1.25    |

Notes:

[11] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 10 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Lobes; LLL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 90.66 <sup>[12]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.15                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.93                             |
| upper limit                             | 1.42                             |

Notes:

[12] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 11 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 54.89 <sup>[13]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.9                              |
| upper limit                             | 1.12                             |

Notes:

[13] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 12 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 94.45 <sup>[14]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.1                              |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.98    |
| upper limit         | 1.24    |

Notes:

[14] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 13 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 94.09 <sup>[15]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.09                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.98    |
| upper limit | 1.21    |

Notes:

[15] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 14 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 62.95 <sup>[16]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.91    |
| upper limit | 1.14    |

Notes:

[16] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 15 |
|-----------------------------------|-------------------------|



Statistical analysis description:

FRC; Scan Trimmed; Lobes; LUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 96.86 <sup>[17]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.12                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.99                             |
| upper limit                             | 1.26                             |

Notes:

[17] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 16 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 94.16 <sup>[18]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.09                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.98                             |
| upper limit                             | 1.2                              |

Notes:

[18] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 17 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RML; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 48.99 <sup>[19]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.86    |
| upper limit         | 1.15    |

Notes:

[19] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 18 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RML; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 94.51 <sup>[20]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.12                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.98    |
| upper limit | 1.28    |

Notes:

[20] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 19 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RML; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 94.59 <sup>[21]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.13                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.97    |
| upper limit | 1.31    |

Notes:

[21] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 20 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC; Scan Trimmed; Lobes; RLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 61.27 <sup>[22]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.86                             |
| upper limit                             | 1.23                             |

**Notes:**

[22] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 21 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC; Scan Trimmed; Lobes; RLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 96.63 <sup>[23]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.15                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.99                             |
| upper limit                             | 1.34                             |

**Notes:**

[23] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 22 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC; Scan Trimmed; Lobes; RLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 94.02 <sup>[24]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.12                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.97    |
| upper limit         | 1.29    |

Notes:

[24] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 23 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 53.24 <sup>[25]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.87    |
| upper limit | 1.17    |

Notes:

[25] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 24 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 70.84 <sup>[26]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.04                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.91    |
| upper limit | 1.19    |

Notes:

[26] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 25 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 74.15 <sup>[27]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.04                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.92                             |
| upper limit                             | 1.19                             |

Notes:

[27] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 26 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Upper; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 65.43 <sup>[28]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.04                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.87                             |
| upper limit                             | 1.24                             |

Notes:

[28] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 27 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Upper; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 97.15 <sup>[29]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.19                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.99    |
| upper limit         | 1.42    |

Notes:

[29] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 28 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Lower; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 63.99 <sup>[30]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.05                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.81    |
| upper limit | 1.34    |

Notes:

[30] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 29 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Lower; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 91.99 <sup>[31]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.15                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.94    |
| upper limit | 1.41    |

Notes:

[31] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 30 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC; Longitudinal; Region; Central; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 76.81 <sup>[32]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.94                             |
| upper limit                             | 1.14                             |

**Notes:**

[32] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 31 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC; Longitudinal; Region; Central; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 67.01 <sup>[33]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.95                             |
| upper limit                             | 1.09                             |

**Notes:**

[33] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 32 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC; Longitudinal; Region; Distal; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 63.91 <sup>[34]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.04                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.85    |
| upper limit         | 1.27    |

Notes:

[34] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 33 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Distal D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 96.47 <sup>[35]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.18                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.99    |
| upper limit | 1.42    |

Notes:

[35] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 34 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Total; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 72.17 <sup>[36]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.93    |
| upper limit | 1.14    |

Notes:

[36] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 35 |
|-----------------------------------|-------------------------|



Statistical analysis description:

FRC; Longitudinal; Region; Total; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 74.38 <sup>[37]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.95                             |
| upper limit                             | 1.11                             |

Notes:

[37] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 36 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Upper; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 53.85 <sup>[38]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.9                              |
| upper limit                             | 1.12                             |

Notes:

[38] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 37 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Upper; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 95.02 <sup>[39]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.1                              |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.98    |
| upper limit         | 1.23    |

Notes:

[39] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 38 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Upper; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 92.27 <sup>[40]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.07                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.97    |
| upper limit | 1.18    |

Notes:

[40] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 39 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Lower; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 54.65 <sup>[41]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.88    |
| upper limit | 1.16    |

Notes:

[41] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 40 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC; Scan Trimmed; Region; Lower; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 87.93 <sup>[42]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.08                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.95                             |
| upper limit                             | 1.23                             |

**Notes:**

[42] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 41 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC; Scan Trimmed; Region; Lower; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 77.57 <sup>[43]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.05                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.92                             |
| upper limit                             | 1.19                             |

**Notes:**

[43] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 42 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC; Scan Trimmed; Region; Central; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 77.07 <sup>[44]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.95    |
| upper limit         | 1.11    |

Notes:

[44] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 43 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed; Region Central; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 78.42 <sup>[45]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.96    |
| upper limit | 1.1     |

Notes:

[45] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 44 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region Central; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 44.15 <sup>[46]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.93    |
| upper limit | 1.06    |

Notes:

[46] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 45 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed; Region;Distal; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 52.79 <sup>[47]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.89                             |
| upper limit                             | 1.13                             |

Notes:

[47] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 46 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region; Distal; SCRD28 .The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 94.51 <sup>[48]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.1                              |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.98                             |
| upper limit                             | 1.24                             |

Notes:

[48] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 47 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region;Distal; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 93.16 <sup>[49]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.08                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.98    |
| upper limit         | 1.19    |

Notes:

[49] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 48 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed; Region;Total; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 73.7 <sup>[50]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.95    |
| upper limit | 1.11    |

Notes:

[50] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 49 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region;Total; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 81.04 <sup>[51]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.96    |
| upper limit | 1.1     |

Notes:

[51] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 50 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed;Region;Total; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 52.58 <sup>[52]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.94                             |
| upper limit                             | 1.07                             |

Notes:

[52] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 51 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; RUL; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 15.85 <sup>[53]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.95                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.86                             |
| upper limit                             | 1.05                             |

Notes:

[53] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 52 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; RUL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 48.69 <sup>[54]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.9     |
| upper limit         | 1.11    |

Notes:

[54] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 53 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; LUL; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 52.25 <sup>[55]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.9     |
| upper limit | 1.13    |

Notes:

[55] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 54 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; LUL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 66.48 <sup>[56]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.91    |
| upper limit | 1.16    |

Notes:

[56] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 55 |
|-----------------------------------|-------------------------|



Statistical analysis description:

TLC; Longitudinal; Lobes; RML; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 9.12 <sup>[57]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.88                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.72                             |
| upper limit                             | 1.06                             |

Notes:

[57] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 56 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; RML; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 16.95 <sup>[58]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.92                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.78                             |
| upper limit                             | 1.09                             |

Notes:

[58] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 57 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; RLL; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 0.89 <sup>[59]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.89                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.75    |
| upper limit         | 1.05    |

Notes:

[59] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 58 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; RLL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 50.4 <sup>[60]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.86    |
| upper limit | 1.17    |

Notes:

[60] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 59 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; LLL; D12 .The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 7.44 <sup>[61]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.89                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.76    |
| upper limit | 1.04    |

Notes:

[61] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 60 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; LLL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 56.35 <sup>[62]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.87                             |
| upper limit                             | 1.18                             |

Notes:

[62] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 61 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 4.03 <sup>[63]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.93                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.87                             |
| upper limit                             | 1.01                             |

Notes:

[63] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 62 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 24.79 <sup>[64]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.97                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.89    |
| upper limit         | 1.06    |

Notes:

[64] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 63 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 77.08 <sup>[65]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.95    |
| upper limit | 1.12    |

Notes:

[65] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 64 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 23.07 <sup>[66]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.97                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.89    |
| upper limit | 1.05    |

Notes:

[66] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 65 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 18.58 <sup>[67]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.96                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.88                             |
| upper limit                             | 1.05                             |

Notes:

[67] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 66 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 44.94 <sup>[68]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.92                             |
| upper limit                             | 1.08                             |

Notes:

[68] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 67 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RML; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 2.21 <sup>[69]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.89                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.8     |
| upper limit         | 1       |

Notes:

[69] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 68 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RML; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 6.09 <sup>[70]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.92                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.83    |
| upper limit | 1.02    |

Notes:

[70] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 69 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RML; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 66.6 <sup>[71]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.92    |
| upper limit | 1.13    |

Notes:

[71] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 70 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 3.23 <sup>[72]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.9                              |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.81                             |
| upper limit                             | 1.01                             |

Notes:

[72] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 71 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 20.83 <sup>[73]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.96                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.86                             |
| upper limit                             | 1.07                             |

Notes:

[73] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 72 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 87.6 <sup>[74]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.06                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.96    |
| upper limit         | 1.16    |

Notes:

[74] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 73 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 7.9 <sup>[75]</sup>            |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.93                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.84    |
| upper limit | 1.03    |

Notes:

[75] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 74 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 23.39 <sup>[76]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.96                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.87    |
| upper limit | 1.07    |

Notes:

[76] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 75 |
|-----------------------------------|-------------------------|



Statistical analysis description:

TLC; Scan Trimmed; Lobes; LLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 76.16 <sup>[77]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.95                             |
| upper limit                             | 1.12                             |

Notes:

[77] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 76 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Region; Upper; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 22.54 <sup>[78]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.96                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.87                             |
| upper limit                             | 1.06                             |

Notes:

[78] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 77 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Region; Upper; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 58.17 <sup>[79]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.91    |
| upper limit         | 1.12    |

Notes:

[79] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 78 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Region; Lower; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 6.22 <sup>[80]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.89                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.76    |
| upper limit | 1.03    |

Notes:

[80] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 79 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Region; Lower; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 55.85 <sup>[81]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.88    |
| upper limit | 1.17    |

Notes:

[81] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 80 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Longitudinal; Region; Central; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 25.44 <sup>[82]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.96                             |
| upper limit                             | 1.02                             |

**Notes:**

[82] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 81 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Longitudinal; Region; Central; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 18.15 <sup>[83]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.96                             |
| upper limit                             | 1.02                             |

**Notes:**

[83] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 82 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Longitudinal; Region; Distal; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 8.12 <sup>[84]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.92                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.82    |
| upper limit         | 1.04    |

Notes:

[84] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 83 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Region; Distal D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 57.39 <sup>[85]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.9     |
| upper limit | 1.13    |

Notes:

[85] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 84 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Region; Total; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 10 <sup>[86]</sup>             |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.97                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.93    |
| upper limit | 1.02    |

Notes:

[86] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 85 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Region; Total; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 29.88 <sup>[87]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.95                             |
| upper limit                             | 1.03                             |

Notes:

[87] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 86 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Upper; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 12.63 <sup>[88]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.96                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.89                             |
| upper limit                             | 1.03                             |

Notes:

[88] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 87 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Upper; SCRD28 The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 32.29 <sup>[89]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.98                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.91    |
| upper limit         | 1.06    |

Notes:

[89] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 88 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Upper; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 69.92 <sup>[90]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.95    |
| upper limit | 1.1     |

Notes:

[90] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 89 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Lower; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 6.1 <sup>[91]</sup>            |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.93                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.84    |
| upper limit | 1.02    |

Notes:

[91] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 90 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region; Lower; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 33.63 <sup>[92]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.98                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.89                             |
| upper limit                             | 1.08                             |

Notes:

[92] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 91 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region; Lower; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 86.07 <sup>[93]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.05                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.13                             |

Notes:

[93] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 92 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region; Central; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 41.38 <sup>[94]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.96    |
| upper limit         | 1.03    |

Notes:

[94] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 93 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed; Region Central; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 24.88 <sup>[95]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.96    |
| upper limit | 1.02    |

Notes:

[95] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 94 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region Central; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 29.89 <sup>[96]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.97    |
| upper limit | 1.02    |

Notes:

[96] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 95 |
|-----------------------------------|-------------------------|



Statistical analysis description:

TLC;Scan Trimmed; Region;Distal; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 7.13 <sup>[97]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.94                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.87                             |
| upper limit                             | 1.02                             |

Notes:

[97] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 96 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region; Distal; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 32.91 <sup>[98]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.98                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.9                              |
| upper limit                             | 1.07                             |

Notes:

[98] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 97 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region;Distal; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 81.15 <sup>[99]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.96    |
| upper limit         | 1.11    |

Notes:

[99] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 98 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed; Region;Total; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 21.87 <sup>[100]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.98                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.95    |
| upper limit | 1.02    |

Notes:

[100] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 99 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region;Total; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 24.49 <sup>[101]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.95    |
| upper limit | 1.02    |

Notes:

[101] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                          |
|-----------------------------------|--------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 100 |
|-----------------------------------|--------------------------|

Statistical analysis description:

TLC; Scan Trimmed;Region;Total; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 55.52 <sup>[102]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.03                             |

Notes:

[102] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

**Secondary: Change from Baseline in imaging airways volume: iVaw, measured at FRC and TLC scan conditions, presented in longitudinal and scan trimmed scan types, measured in 5 lobes and 5 regions at Screening, Day 12 and Day 28**

|                 |   |
|-----------------|---|
| End point title | Change from Baseline in imaging airways volume: iVaw, measured at FRC and TLC scan conditions, presented in longitudinal and scan trimmed scan types, measured in 5 lobes and 5 regions at Screening, Day 12 and Day 28 |
|-----------------|---|

End point description:

iVaw was derived from HRCT to evaluate the effect of once daily inhaled dose of GSK2269557 on lung parameters. Data was collected at longitudinal time points: Screening, Day 12 & Day 28 and at each time point for scan trimmed pairs: SCRD12, SCRD28 & D12D28. At each time point it was measure at 5 lobes (RUL, LUL, RML, RLL & LLL) and 5 Regions (Upper, Lower, Central, Distal & Total). For longitudinal time points and SCRD12 & SCRD28 scan trimmed pairs the baseline is screening, for D12D28 scan trimmed pair the baseline is D12. Change from baseline is the post-Baseline value minus the Baseline value. Only participants available at the specified time point were analysed (represented by n=X1, X2 in the category title).

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Baseline, Day 12 and Day 28

| End point values                               | Placebo                | GSK2269557 1000 mcg    |  |  |
|--|------------------------|------------------------|--|--|
| Subject group type                             | Reporting group        | Reporting group        |  |  |
| Number of subjects analysed                    | 62 <sup>[103]</sup>    | 63                     |  |  |
| Units: Milliliter (mL)                         |                        |                        |  |  |
| geometric mean (confidence interval 95%)       |                        |                        |  |  |
| FRC; Longitudinal; Lobes; RUL; D12 , n =54, 59 | 1.02 (0.838 to 1.242)  | 1.058 (0.93 to 1.203)  |  |  |
| FRC; Longitudinal; Lobes; RUL; D28 , n =56, 58 | 0.96 (0.755 to 1.22)   | 1.121 (0.965 to 1.301) |  |  |
| FRC; Longitudinal; Lobes; LUL; D12 , n=56, 59  | 0.951 (0.789 to 1.145) | 0.999 (0.866 to 1.151) |  |  |
| FRC; Longitudinal; Lobes; LUL; D28 , n =56, 58 | 0.876 (0.727 to 1.055) | 1.108 (0.938 to 1.309) |  |  |

|  |                        |                        |  |  |
|--|------------------------|------------------------|--|--|
| FRC; Longitudinal; Lobes; RML; D12 , n =53, 59     | 0.905 (0.746 to 1.098) | 0.869 (0.694 to 1.089) |  |  |
| FRC; Longitudinal; Lobes; RML; D28 , n=53, 58      | 0.835 (0.655 to 1.064) | 1.013 (0.87 to 1.18)   |  |  |
| FRC; Longitudinal; Lobes; RLL; D12 , n =54, 59     | 0.889 (0.669 to 1.182) | 1.119 (0.892 to 1.404) |  |  |
| FRC; Longitudinal; Lobes; RLL; D28 , n =55, 58     | 0.85 (0.634 to 1.14)   | 1.177 (0.977 to 1.417) |  |  |
| FRC; Longitudinal; Lobes; LLL; D12 , n =53, 58     | 1.017 (0.853 to 1.212) | 1.067 (0.881 to 1.293) |  |  |
| FRC; Longitudinal; Lobes; LLL; D28 ,n =54, 58      | 0.98 (0.784 to 1.226)  | 1.187 (0.992 to 1.421) |  |  |
| FRC; Scan Trimmed; Lobes; RUL; SCRD12 , n =54, 59  | 1.035 (0.942 to 1.137) | 1.006 (0.927 to 1.091) |  |  |
| FRC; Scan Trimmed; Lobes; RUL; SCRD28 , n=56, 58   | 0.976 (0.872 to 1.091) | 1.027 (0.938 to 1.124) |  |  |
| FRC; Scan Trimmed; Lobes; RUL; D12D28 , n =51, 57  | 0.927 (0.861 to 0.997) | 1.018 (0.948 to 1.092) |  |  |
| FRC; Scan Trimmed; Lobes; LUL; SCRD12 , n =56, 59  | 0.954 (0.87 to 1.048)  | 1.01 (0.932 to 1.095)  |  |  |
| FRC; Scan Trimmed; Lobes; LUL; SCRD28 , n=56, 58   | 0.933 (0.846 to 1.029) | 1.035 (0.946 to 1.133) |  |  |
| FRC; Scan Trimmed; Lobes; LUL; D12D28 , n =53, 57  | 0.981 (0.902 to 1.068) | 1.029 (0.956 to 1.107) |  |  |
| FRC; Scan Trimmed; Lobes; RML; SCRD12 , n =53, 59  | 0.905 (0.798 to 1.027) | 0.97 (0.872 to 1.079)  |  |  |
| FRC; Scan Trimmed; Lobes; RML; SCRD28 , n=53, 58   | 0.907 (0.807 to 1.02)  | 0.972 (0.876 to 1.079) |  |  |
| FRC; Scan Trimmed; Lobes; RML; D12D28 , n =52, 57  | 0.927 (0.833 to 1.032) | 1.031 (0.933 to 1.139) |  |  |
| FRC; Scan Trimmed; Lobes; RLL; SCRD12 , n =54, 59  | 0.968 (0.849 to 1.102) | 1.004 (0.905 to 1.113) |  |  |
| FRC; Scan Trimmed; Lobes; RLL; SCRD28 , n=55, 58   | 0.948 (0.796 to 1.131) | 1.022 (0.925 to 1.13)  |  |  |
| FRC; Scan Trimmed; Lobes; RLL; D12D28 , n =52, 57  | 0.916 (0.837 to 1.002) | 1.018 (0.92 to 1.125)  |  |  |
| FRC; Scan Trimmed; Lobes; LLL; SCRD12 , n =53, 58  | 0.997 (0.898 to 1.108) | 1.031 (0.935 to 1.136) |  |  |
| FRC; Scan Trimmed; Lobes; LLL; SCRD28 , n=54, 58   | 1.013 (0.869 to 1.182) | 1.054 (0.954 to 1.164) |  |  |
| FRC; Scan Trimmed; Lobes; LLL; D12D28 , n =51, 56  | 0.989 (0.922 to 1.061) | 1.061 (0.962 to 1.17)  |  |  |
| FRC; Longitudinal;Region; Upper; D12 , n =56, 59   | 0.933 (0.789 to 1.104) | 1 (0.882 to 1.133)     |  |  |
| FRC; Longitudinal; Region; Upper; D28 , n =56, 58  | 0.898 (0.749 to 1.077) | 1.079 (0.943 to 1.236) |  |  |
| FRC; Longitudinal; Region; Lower; D12 , n=54, 59   | 0.965 (0.798 to 1.166) | 1.058 (0.878 to 1.275) |  |  |
| FRC; Longitudinal; Region; Lower; D28 , n =55, 58  | 0.931 (0.751 to 1.153) | 1.151 (0.978 to 1.354) |  |  |
| FRC; Longitudinal; Region;Central; D12 , n =56, 59 | 0.945 (0.863 to 1.035) | 1.016 (0.961 to 1.074) |  |  |
| FRC; Longitudinal;Region; Cetral; D28 , n=56, 58   | 0.968 (0.892 to 1.05)  | 1.01 (0.961 to 1.062)  |  |  |
| FRC; Longitudinal; Region; Distal; D12 , n =56, 59 | 0.939 (0.779 to 1.132) | 1.022 (0.883 to 1.182) |  |  |
| FRC; Longitudinal; Region; Distal D28 , n =56, 58  | 0.917 (0.757 to 1.11)  | 1.107 (0.961 to 1.276) |  |  |
| FRC; Longitudinal; Region;Total; D12 n =56, 59     | 0.946 (0.858 to 1.043) | 1.012 (0.951 to 1.077) |  |  |
| FRC; Longitudinal; Region; Total; D28 ,n =56, 58   | 0.966 (0.885 to 1.053) | 1.017 (0.961 to 1.076) |  |  |

|  |                        |                        |  |  |
|--|------------------------|------------------------|--|--|
| FRC; Scan Trimmed; Region;Upper; SCRD12 ,n =56, 59 | 0.969 (0.881 to 1.067) | 0.997 (0.923 to 1.076) |  |  |
| FRC; Scan Trimmed; Region;Upper; SCRD28 ,n=56, 58  | 0.941 (0.86 to 1.03)   | 1.019 (0.934 to 1.112) |  |  |
| FRC; Scan Trimmed; Region;Upper; D12D28 ,n =53, 57 | 0.968 (0.893 to 1.049) | 1.025 (0.96 to 1.095)  |  |  |
| FRC; Scan Trimmed; Region;Lower; SCRD12 ,n =54, 59 | 0.994 (0.902 to 1.096) | 1.022 (0.929 to 1.124) |  |  |
| FRC; Scan Trimmed; Region; Lower; SCRD28 ,n=55, 58 | 0.98 (0.846 to 1.135)  | 1.04 (0.948 to 1.14)   |  |  |
| FRC; Scan Trimmed; Region;Lower; D12D28 ,n =52, 57 | 0.954 (0.889 to 1.02)  | 1.013 (0.928 to 1.106) |  |  |
| FRC;Scan Trimmed;Region;Central; SCRD12 ,n =56, 59 | 0.964 (0.891 to 1.044) | 1.016 (0.967 to 1.069) |  |  |
| FRC;Scan Trimmed; Region Central; SCRD28 ,n=56, 58 | 0.978 (0.908 to 1.054) | 1.007 (0.966 to 1.051) |  |  |
| FRC;Scan Trimmed;Region Central; D12D28 ,n =53, 57 | 1 (0.95 to 1.053)      | 0.988 (0.946 to 1.033) |  |  |
| FRC;Scan Trimmed; Region;Distal; SCRD12 ,n =56, 59 | 0.974 (0.882 to 1.074) | 1.003 (0.923 to 1.089) |  |  |
| FRC;Scan Trimmed;Region; Distal; SCRD28 , n=56, 58 | 0.96 (0.862 to 1.07)   | 1.03 (0.944 to 1.123)  |  |  |
| FRC;Scan Trimmed;Region;Distal; D12D28 , n =53, 57 | 0.965 (0.897 to 1.039) | 1.03 (0.961 to 1.105)  |  |  |
| FRC;Scan Trimmed; Region;Total; SCRD12 , n =56, 59 | 0.965 (0.891 to 1.045) | 1.014 (0.963 to 1.067) |  |  |
| FRC;Scan Trimmed;Region;Total; SCRD28 , n=56, 58   | 0.978 (0.908 to 1.054) | 1.008 (0.964 to 1.053) |  |  |
| FRC; Scan Trimmed;Region;Total; D12D28 , n =53, 57 | 0.998 (0.949 to 1.049) | 0.993 (0.949 to 1.039) |  |  |
| TLC; Longitudinal; Lobes; RUL; D12 , n =58, 59     | 1.057 (0.954 to 1.172) | 0.982 (0.917 to 1.051) |  |  |
| TLC; Longitudinal; Lobes; RUL; D28 , n =56, 59     | 1.05 (0.92 to 1.198)   | 0.989 (0.916 to 1.068) |  |  |
| TLC; Longitudinal; Lobes; LUL; D12 , n=58, 59      | 1.045 (0.929 to 1.175) | 1.005 (0.932 to 1.084) |  |  |
| TLC; Longitudinal; Lobes; LUL; D28 , n =56, 59     | 1.082 (0.913 to 1.282) | 1.025 (0.942 to 1.116) |  |  |
| TLC; Longitudinal; Lobes; RML; D12 , n =58, 59     | 1.045 (0.861 to 1.268) | 0.887 (0.779 to 1.009) |  |  |
| TLC; Longitudinal; Lobes; RML; D28 , n=56, 59      | 1.076 (0.872 to 1.328) | 0.906 (0.81 to 1.012)  |  |  |
| TLC; Longitudinal; Lobes; RLL; D12 , n =58, 59     | 1.049 (0.889 to 1.238) | 0.91 (0.817 to 1.014)  |  |  |
| TLC; Longitudinal; Lobes; RLL; D28 , n =56, 59     | 1.014 (0.826 to 1.244) | 0.956 (0.854 to 1.071) |  |  |
| TLC; Longitudinal; Lobes; LLL; D12, n =57, 59      | 1.082 (0.911 to 1.286) | 0.924 (0.827 to 1.031) |  |  |
| TLC; Longitudinal; Lobes; LLL; D28 ,n =55, 59      | 1.077 (0.888 to 1.306) | 0.989 (0.879 to 1.112) |  |  |
| TLC; Scan Trimmed; Lobes; RUL; SCRD12 , n =58, 59  | 1.049 (0.982 to 1.121) | 0.994 (0.945 to 1.046) |  |  |
| TLC; Scan Trimmed; Lobes; RUL; SCRD28 , n=56, 59   | 1.025 (0.944 to 1.113) | 0.987 (0.932 to 1.046) |  |  |
| TLC; Scan Trimmed; Lobes; RUL; D12D28 , n =55, 58  | 0.966 (0.898 to 1.039) | 1.002 (0.957 to 1.05)  |  |  |
| TLC; Scan Trimmed; Lobes; LUL; SCRD12 , n =58, 59  | 1.024 (0.958 to 1.095) | 0.999 (0.946 to 1.055) |  |  |
| TLC; Scan Trimmed; Lobes; LUL; SCRD28 , n=56, 59   | 1.039 (0.954 to 1.132) | 0.989 (0.929 to 1.052) |  |  |
| TLC; Scan Trimmed; Lobes; LUL; D12D28 , n =55, 58  | 1.008 (0.929 to 1.095) | 1.002 (0.957 to 1.049) |  |  |

|  |                        |                        |  |  |
|--|------------------------|------------------------|--|--|
| TLC; Scan Trimmed; Lobes; RML; SCRD12 , n =58, 59      | 1.017 (0.937 to 1.105) | 0.926 (0.861 to 0.996) |  |  |
| TLC; Scan Trimmed; Lobes; RML; SCRD28 , n=56, 59       | 1.013 (0.915 to 1.121) | 0.935 (0.879 to 0.995) |  |  |
| TLC; Scan Trimmed; Lobes; RML; D12D28 , n =55, 58      | 0.974 (0.898 to 1.057) | 1.021 (0.955 to 1.09)  |  |  |
| TLC; Scan Trimmed; Lobes; RLL; SCRD12 , n =58, 59      | 1.032 (0.947 to 1.126) | 0.936 (0.875 to 1.001) |  |  |
| TLC; Scan Trimmed; Lobes; RLL; SCRD28 , n=56, 59       | 0.983 (0.884 to 1.094) | 0.952 (0.892 to 1.016) |  |  |
| TLC; Scan Trimmed; Lobes; RLL; D12D28 , n =55, 58      | 0.953 (0.868 to 1.047) | 1.033 (0.986 to 1.082) |  |  |
| TLC; Scan Trimmed; Lobes; LLL; SCRD12 , n =57, 59      | 1.032 (0.94 to 1.133)  | 0.956 (0.895 to 1.022) |  |  |
| TLC; Scan Trimmed; Lobes; LLL; SCRD28 , n=55, 59       | 1.027 (0.919 to 1.147) | 0.968 (0.904 to 1.037) |  |  |
| TLC; Scan Trimmed; Lobes; LLL; D12D28 , n =54, 58      | 0.976 (0.906 to 1.052) | 1.025 (0.976 to 1.077) |  |  |
| TLC; Longitudinal; Region; Upper; D12 , n =58, 59      | 1.037 (0.934 to 1.151) | 0.981 (0.917 to 1.049) |  |  |
| TLC; Longitudinal; Region; Upper; D28 , n =56, 59      | 1.049 (0.909 to 1.211) | 0.994 (0.924 to 1.069) |  |  |
| TLC; Longitudinal; Region; Lower; D12 , n=58, 59       | 1.061 (0.911 to 1.235) | 0.921 (0.83 to 1.022)  |  |  |
| TLC; Longitudinal; Region; Lower; D28 , n =56, 59      | 1.037 (0.867 to 1.241) | 0.977 (0.876 to 1.089) |  |  |
| TLC; Longitudinal; Region; Central; D12 , n =58, 59    | 1.006 (0.972 to 1.042) | 0.988 (0.97 to 1.007)  |  |  |
| TLC; Longitudinal; Region; Central; D28 , n=56, 59     | 1.007 (0.968 to 1.049) | 0.993 (0.973 to 1.013) |  |  |
| TLC; Longitudinal; Region; Distal; D12 , n =58, 59     | 1.048 (0.93 to 1.182)  | 0.947 (0.876 to 1.023) |  |  |
| TLC; Longitudinal; Region; Distal D28 , n =56, 59      | 1.041 (0.891 to 1.215) | 0.983 (0.905 to 1.067) |  |  |
| TLC; Longitudinal; Region; Total; D12, n =58, 59       | 1.014 (0.968 to 1.062) | 0.979 (0.954 to 1.004) |  |  |
| TLC; Longitudinal; Region; Total; D28 , n =56, 59      | 1.007 (0.955 to 1.061) | 0.989 (0.963 to 1.016) |  |  |
| TLC; Scan Trimmed; Region; Upper; SCRD12 , n =58, 59   | 1.033 (0.969 to 1.102) | 0.989 (0.94 to 1.041)  |  |  |
| TLC; Scan Trimmed; Region; Upper; SCRD28 , n=56, 59    | 1.025 (0.945 to 1.111) | 0.983 (0.929 to 1.04)  |  |  |
| TLC; Scan Trimmed; Region; Upper; D12D28 , n =55, 58   | 0.983 (0.915 to 1.055) | 1.006 (0.964 to 1.049) |  |  |
| TLC; Scan Trimmed; Region; Lower; SCRD12 , n =58, 59   | 1.03 (0.949 to 1.118)  | 0.951 (0.894 to 1.011) |  |  |
| TLC; Scan Trimmed; Region; Lower; SCRD28 , n=56, 59    | 0.997 (0.904 to 1.099) | 0.963 (0.903 to 1.027) |  |  |
| TLC; Scan Trimmed; Region; Lower; D12D28 , n =55, 58   | 0.964 (0.889 to 1.045) | 1.025 (0.985 to 1.067) |  |  |
| TLC; Scan Trimmed; Region; Central; SCRD12 , n =58, 59 | 1.005 (0.973 to 1.037) | 0.994 (0.976 to 1.013) |  |  |
| TLC; Scan Trimmed; Region Central; SCRD28 , n=56, 59   | 1.007 (0.971 to 1.044) | 0.995 (0.977 to 1.014) |  |  |
| TLC; Scan Trimmed; Region Central; D12D28 , n =55, 58  | 1 (0.98 to 1.022)      | 1.003 (0.991 to 1.015) |  |  |
| TLC; Scan Trimmed; Region; Distal; SCRD12 , n =58, 59  | 1.03 (0.961 to 1.105)  | 0.969 (0.918 to 1.023) |  |  |
| TLC; Scan Trimmed; Region; Distal; SCRD28 , n =56, 59  | 1.01 (0.927 to 1.1)    | 0.973 (0.919 to 1.03)  |  |  |
| TLC; Scan Trimmed; Region; Distal; D12D28 , n =55, 58  | 0.975 (0.906 to 1.04)  | 1.016 (0.978 to 1.057) |  |  |

|   |                           |                           |  |  |
|---|---------------------------|---------------------------|--|--|
| TLC;Scan Trimmed; Region;Total;<br>SCRD12 , n =58, 59 | 1.01 (0.974 to<br>1.046)  | 0.989 (0.967<br>to 1.011) |  |  |
| TLC;Scan Trimmed;Region;Total;<br>SCRD28 , n=56, 59   | 1.006 (0.966<br>to 1.047) | 0.99 (0.968 to<br>1.012)  |  |  |
| TLC; Scan Trimmed;Region;Total;<br>D12D28 , n =55, 58 | 0.993 (0.968<br>to 1.019) | 1.005 (0.99 to<br>1.02)   |  |  |

Notes:

[103] - ITT Population excluding the subject with a pacemaker.

## Statistical analyses

| Statistical analysis title   | Statistical analysis 1           |
|--|----------------------------------|
| Statistical analysis description:  |                                  |
| (FRC; Longitudinal; Lobes; RUL; D12, The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                                  |
| Comparison groups  | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis  | 125                              |
| Analysis specification   | Pre-specified                    |
| Analysis type  | other <sup>[104]</sup>           |
| P-value  | = 59.55 <sup>[105]</sup>         |
| Method   | Bayesian repeated measures model |
| Parameter estimate   | Posterior Median Ratio           |
| Point estimate   | 1.02                             |
| Confidence interval  |                                  |
| level  | 95 %                             |
| sides  | 2-sided                          |
| lower limit  | 0.84                             |
| upper limit  | 1.25                             |

Notes:

[104] - Comment for all statistical analysis, where method = Bayesian repeated measures model: Non-informative priors used for all modelling parameters. Unstructured covariance matrix fitted, accounting for correlation within region and visit.

[105] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

| Statistical analysis title   | Statistical analysis 2           |
|--|----------------------------------|
| Statistical analysis description:  |                                  |
| (FRC; Longitudinal; Lobes; RUL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                                  |
| Comparison groups  | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis  | 125                              |
| Analysis specification   | Pre-specified                    |
| Analysis type  | other                            |
| P-value  | = 94.01 <sup>[106]</sup>         |
| Method   | Bayesian repeated measures model |
| Parameter estimate   | Posterior Median Ratio           |
| Point estimate   | 1.18                             |
| Confidence interval  |                                  |
| level  | 95 %                             |
| sides  | 2-sided                          |
| lower limit  | 0.96                             |
| upper limit  | 1.46                             |

Notes:

[106] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|   |                                  |
|---|----------------------------------|
| <b>Statistical analysis title</b>   | Statistical analysis 3           |
| Statistical analysis description:   |                                  |
| FRC; Longitudinal; Lobes; LUL; D12, The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                                  |
| Comparison groups   | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis   | 125                              |
| Analysis specification  | Pre-specified                    |
| Analysis type   | other                            |
| P-value   | = 82.27 <sup>[107]</sup>         |
| Method  | Bayesian repeated measures model |
| Parameter estimate  | Posterior Median Ratio           |
| Point estimate  | 1.1                              |
| Confidence interval   |                                  |
| level   | 95 %                             |
| sides   | 2-sided                          |
| lower limit   | 0.9                              |
| upper limit   | 1.33                             |

Notes:

[107] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|   |                                  |
|---|----------------------------------|
| <b>Statistical analysis title</b>   | Statistical analysis 4           |
| Statistical analysis description:   |                                  |
| FRC; Longitudinal; Lobes; LUL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                                  |
| Comparison groups   | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis   | 125                              |
| Analysis specification  | Pre-specified                    |
| Analysis type   | other                            |
| P-value   | = 99.22 <sup>[108]</sup>         |
| Method  | Bayesian repeated measures model |
| Parameter estimate  | Posterior Median Ratio           |
| Point estimate  | 1.31                             |
| Confidence interval   |                                  |
| level   | 95 %                             |
| sides   | 2-sided                          |
| lower limit   | 1.06                             |
| upper limit   | 1.61                             |

Notes:

[108] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|   |                               |
|---|-------------------------------|
| <b>Statistical analysis title</b>   | Statistical analysis 5        |
| Statistical analysis description:   |                               |
| FRC; Longitudinal; Lobes; RML; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                               |
| Comparison groups   | GSK2269557 1000 mcg v Placebo |



|   |                                  |
|---|----------------------------------|
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 46.24 <sup>[109]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.75                             |
| upper limit                             | 1.29                             |

Notes:

[109] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 6 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Longitudinal; Lobes; RML; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 98.3 <sup>[110]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.29                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 1.02                             |
| upper limit                             | 1.64                             |

Notes:

[110] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 7 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Longitudinal; Lobes; RLL; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 92.6 <sup>[111]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.25                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.92    |
| upper limit         | 1.7     |

Notes:

[111] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 8 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Longitudinal; Lobes; RLL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 99.01 <sup>[112]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.38                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 1.05    |
| upper limit | 1.81    |

Notes:

[112] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 9 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Longitudinal; Lobes; LLL; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 58.8 <sup>[113]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.82    |
| upper limit | 1.28    |

Notes:

[113] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 10 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Lobes; LLL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 86.82 <sup>[114]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.13                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.91                             |
| upper limit                             | 1.42                             |

Notes:

[114] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 11 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 67.37 <sup>[115]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.92                             |
| upper limit                             | 1.14                             |

Notes:

[115] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 12 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 98.35 <sup>[116]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.14                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 1.01    |
| upper limit         | 1.29    |

Notes:

[116] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 13 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 96.86 <sup>[117]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.1                              |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.99    |
| upper limit | 1.23    |

Notes:

[117] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 14 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 86.18 <sup>[118]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.07                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.95    |
| upper limit | 1.19    |

Notes:

[118] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 15 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 98.89 <sup>[119]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.16                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 1.02                             |
| upper limit                             | 1.31                             |

Notes:

[119] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 16 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 91.94 <sup>[120]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.08                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.19                             |

Notes:

[120] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 17 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RML; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 55.32 <sup>[121]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.88    |
| upper limit         | 1.17    |

Notes:

[121] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 18 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RML; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 97.17 <sup>[122]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.15                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 1       |
| upper limit | 1.32    |

Notes:

[122] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 19 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RML; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 96.57 <sup>[123]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.14                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.99    |
| upper limit | 1.32    |

Notes:

[123] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 20 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 79.13 <sup>[124]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.07                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.9                              |
| upper limit                             | 1.27                             |

Notes:

[124] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 21 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 99.54 <sup>[125]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.22                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 1.05                             |
| upper limit                             | 1.42                             |

Notes:

[125] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 22 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 97.8 <sup>[126]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.14                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 1       |
| upper limit         | 1.3     |

Notes:

[126] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 23 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 71.94 <sup>[127]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.04                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.91    |
| upper limit | 1.19    |

Notes:

[127] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 24 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 85.3 <sup>[128]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.08                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.94    |
| upper limit | 1.23    |

Notes:

[128] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 25 |
|-----------------------------------|-------------------------|



Statistical analysis description:

FRC; Scan Trimmed; Lobes; LLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 82.15 <sup>[129]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.06                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.94                             |
| upper limit                             | 1.19                             |

Notes:

[129] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 26 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Upper; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 72.55 <sup>[130]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.06                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.88                             |
| upper limit                             | 1.27                             |

Notes:

[130] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 27 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Upper; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 98.44 <sup>[131]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.22                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 1.02    |
| upper limit         | 1.47    |

Notes:

[131] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 28 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Lower; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 78.24 <sup>[132]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.11                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.86    |
| upper limit | 1.43    |

Notes:

[132] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 29 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Lower; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 96.8 <sup>[133]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.23                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.99    |
| upper limit | 1.52    |

Notes:

[133] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 30 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Central; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 91.11 <sup>[134]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.07                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.17                             |

Notes:

[134] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 31 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Central; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 89.3 <sup>[135]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.05                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.13                             |

Notes:

[135] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 32 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Distal; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 74.67 <sup>[136]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.07                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.87    |
| upper limit         | 1.32    |

Notes:

[136] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 33 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Distal D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 98.25 <sup>[137]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.23                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 1.02    |
| upper limit | 1.48    |

Notes:

[137] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 34 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Total; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 87.8 <sup>[138]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.06                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.96    |
| upper limit | 1.18    |

Notes:

[138] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 35 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Longitudinal; Region; Total; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 91.54 <sup>[139]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.06                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.15                             |

Notes:

[139] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 36 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Upper; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 68.89 <sup>[140]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.92                             |
| upper limit                             | 1.14                             |

Notes:

[140] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 37 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Upper; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 98.19 <sup>[141]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.13                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 1.01    |
| upper limit         | 1.27    |

Notes:

[141] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 38 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Upper; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 94.07 <sup>[142]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.08                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.98    |
| upper limit | 1.19    |

Notes:

[142] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 39 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Lower; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 75.74 <sup>[143]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.05                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.92    |
| upper limit | 1.19    |

Notes:

[143] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 40 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region; Lower; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 95.83 <sup>[144]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.12                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.99                             |
| upper limit                             | 1.28                             |

Notes:

[144] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 41 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region; Lower; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 79.8 <sup>[145]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.05                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.94                             |
| upper limit                             | 1.17                             |

Notes:

[145] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 42 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region; Central; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 95.29 <sup>[146]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.06                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.99    |
| upper limit         | 1.13    |

Notes:

[146] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 43 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed; Region Central; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 96.27 <sup>[147]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.06                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.99    |
| upper limit | 1.13    |

Notes:

[147] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 44 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region Central; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 47.62 <sup>[148]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.94    |
| upper limit | 1.06    |

Notes:

[148] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 45 |
|-----------------------------------|-------------------------|



Statistical analysis description:

FRC;Scan Trimmed; Region;Distal; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 71.55 <sup>[149]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.92                             |
| upper limit                             | 1.15                             |

Notes:

[149] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 46 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region; Distal; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 98.29 <sup>[150]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.13                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 1.01                             |
| upper limit                             | 1.28                             |

Notes:

[150] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 47 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region;Distal; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 95.09 <sup>[151]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Bayesian repeated measures model |
| Point estimate                          | 1.08                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.99    |
| upper limit         | 1.19    |

Notes:

[151] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 48 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed; Region;Total; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 93.68 <sup>[152]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.05                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.98    |
| upper limit | 1.13    |

Notes:

[152] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 49 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region;Total; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 96.58 <sup>[153]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.06                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 1       |
| upper limit | 1.14    |

Notes:

[153] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 50 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed;Region;Total; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 56.99 <sup>[154]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.95                             |
| upper limit                             | 1.06                             |

Notes:

[154] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 51 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; RUL; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 13.08 <sup>[155]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.94                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.85                             |
| upper limit                             | 1.04                             |

Notes:

[155] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 52 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; RUL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 52.99 <sup>[156]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.89    |
| upper limit         | 1.13    |

Notes:

[156] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 53 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; LUL; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 60.75 <sup>[157]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.9     |
| upper limit | 1.14    |

Notes:

[157] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 54 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; LUL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 75.23 <sup>[158]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.05                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.92    |
| upper limit | 1.2     |

Notes:

[158] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 55 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; RML; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 28.14 <sup>[159]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.95                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.78                             |
| upper limit                             | 1.14                             |

Notes:

[159] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 56 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; RML; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 38.43 <sup>[160]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.98                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.84                             |
| upper limit                             | 1.14                             |

Notes:

[160] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 57 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; RLL; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 25.21                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.95                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.8     |
| upper limit         | 1.12    |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 58 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; RLL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 81.73                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.08                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.91                             |
| upper limit                             | 1.27                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 59 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Lobes; LLL; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 9.87 <sup>[161]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.9                              |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.76                             |
| upper limit                             | 1.06                             |

Notes:

[161] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 60 |
|-----------------------------------|-------------------------|

---

**Statistical analysis description:**

TLC; Longitudinal; Lobes; LLL; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 63.15                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.87                             |
| upper limit                             | 1.21                             |

---

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 61 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Scan Trimmed; Lobes; RUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 4.03                           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.93                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.86                             |
| upper limit                             | 1.01                             |

---

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 62 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Scan Trimmed; Lobes; RUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 30.03 <sup>[162]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.97                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.89    |
| upper limit         | 1.07    |

Notes:

[162] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 63 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 80.34                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.04                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.95                             |
| upper limit                             | 1.13                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 64 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 25.65                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.97                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.89                             |
| upper limit                             | 1.06                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 65 |
|-----------------------------------|-------------------------|



**Statistical analysis description:**

TLC; Scan Trimmed; Lobes; LUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 24.36                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.97                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.88                             |
| upper limit                             | 1.06                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 66 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Scan Trimmed; Lobes; LUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 48.45                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.91                             |
| upper limit                             | 1.09                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 67 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Scan Trimmed; Lobes; RML; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 1.95                           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.89                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.81    |
| upper limit         | 0.99    |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 68 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RML; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 14.15                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.94                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.85                             |
| upper limit                             | 1.05                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 69 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RML; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 80.61                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.05                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.95                             |
| upper limit                             | 1.16                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 70 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Scan Trimmed; Lobes; RLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 3.3                            |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.91                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.81                             |
| upper limit                             | 1.01                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 71 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Scan Trimmed; Lobes; RLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 42.22                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.88                             |
| upper limit                             | 1.11                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 72 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Scan Trimmed; Lobes; RLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 95.24                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.09                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.99    |
| upper limit         | 1.2     |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 73 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 6.38                           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.92                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.83                             |
| upper limit                             | 1.03                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 74 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 28.82                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.97                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.86                             |
| upper limit                             | 1.09                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 75 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Scan Trimmed; Lobes; LLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 87.39                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.05                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.14                             |

**Statistical analysis title**

Statistical analysis 76

**Statistical analysis description:**

TLC; Longitudinal; Region; Upper; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 23.27                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.96                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.87                             |
| upper limit                             | 1.07                             |

**Statistical analysis title**

Statistical analysis 77

**Statistical analysis description:**

TLC; Longitudinal; Region; Upper; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo     |
| Number of subjects included in analysis | 125                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | other                             |
| P-value                                 | = 57.82                           |
| Method                                  | Bayesian repeated measures model. |
| Parameter estimate                      | Posterior Median Ratio            |
| Point estimate                          | 1.01                              |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.9     |
| upper limit         | 1.13    |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 78 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Region; Lower; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo     |
| Number of subjects included in analysis | 125                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | other                             |
| P-value                                 | = 9.67                            |
| Method                                  | Bayesian repeated measures model. |
| Parameter estimate                      | Posterior Median Ratio            |
| Point estimate                          | 0.9                               |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | 0.77                              |
| upper limit                             | 1.06                              |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 79 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Region; Lower; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo     |
| Number of subjects included in analysis | 125                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | other                             |
| P-value                                 | = 70.73                           |
| Method                                  | Bayesian repeated measures model. |
| Parameter estimate                      | Posterior Median Ratio            |
| Point estimate                          | 1.04                              |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | 0.89                              |
| upper limit                             | 1.22                              |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 80 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Longitudinal; Region; Central; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo     |
| Number of subjects included in analysis | 125                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | other                             |
| P-value                                 | = 25.61                           |
| Method                                  | Bayesian repeated measures model. |
| Parameter estimate                      | Posterior Median Ratio            |
| Point estimate                          | 0.99                              |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | 0.95                              |
| upper limit                             | 1.02                              |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 81 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Longitudinal; Region; Central; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo     |
| Number of subjects included in analysis | 125                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | other                             |
| P-value                                 | = 44.1                            |
| Method                                  | Bayesian repeated measures model. |
| Parameter estimate                      | Posterior Median Ratio            |
| Point estimate                          | 1                                 |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | 0.96                              |
| upper limit                             | 1.03                              |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 82 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Longitudinal; Region; Distal; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo     |
| Number of subjects included in analysis | 125                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | other                             |
| P-value                                 | = 10.14                           |
| Method                                  | Bayesian repeated measures model. |
| Parameter estimate                      | Posterior Median Ratio            |
| Point estimate                          | 0.92                              |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.82    |
| upper limit         | 1.04    |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 83 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Region; Distal D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo     |
| Number of subjects included in analysis | 125                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | other                             |
| P-value                                 | = 62.87                           |
| Method                                  | Bayesian repeated measures model. |
| Parameter estimate                      | Posterior Median Ratio            |
| Point estimate                          | 1.02                              |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | 0.9                               |
| upper limit                             | 1.16                              |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 84 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Longitudinal; Region; Total; D12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo     |
| Number of subjects included in analysis | 125                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | other                             |
| P-value                                 | = 11.82                           |
| Method                                  | Bayesian repeated measures model. |
| Parameter estimate                      | Posterior Median Ratio            |
| Point estimate                          | 0.97                              |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | 0.93                              |
| upper limit                             | 1.02                              |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 85 |
|-----------------------------------|-------------------------|



Statistical analysis description:

TLC; Longitudinal; Region; Total; D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo     |
| Number of subjects included in analysis | 125                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | other                             |
| P-value                                 | = 51.44                           |
| Method                                  | Bayesian repeated measures model. |
| Parameter estimate                      | Posterior Median Ratio            |
| Point estimate                          | 1                                 |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | 0.95                              |
| upper limit                             | 1.05                              |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 86 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Upper; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 9.54 <sup>[163]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.95                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.88                             |
| upper limit                             | 1.03                             |

Notes:

[163] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 87 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Upper; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                               |
|---|-------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo |
| Number of subjects included in analysis | 125                           |
| Analysis specification                  | Pre-specified                 |
| Analysis type                           | other                         |
| Parameter estimate                      | Posterior Median Ratio        |
| Point estimate                          | 0.98                          |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.89    |
| upper limit         | 1.07    |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 88 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Upper; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo     |
| Number of subjects included in analysis | 125                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | other                             |
| P-value                                 | = 73.03                           |
| Method                                  | Bayesian repeated measures model. |
| Parameter estimate                      | Posterior Median Ratio            |
| Point estimate                          | 1.02                              |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | 0.95                              |
| upper limit                             | 1.11                              |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 89 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Lower; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo     |
| Number of subjects included in analysis | 125                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | other                             |
| P-value                                 | = 4.64                            |
| Method                                  | Bayesian repeated measures model. |
| Parameter estimate                      | Posterior Median Ratio            |
| Point estimate                          | 0.92                              |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | 0.83                              |
| upper limit                             | 1.01                              |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 90 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Scan Trimmed; Region; Lower; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 42.13                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.89                             |
| upper limit                             | 1.1                              |

**Statistical analysis title**

Statistical analysis 91

**Statistical analysis description:**

TLC; Scan Trimmed; Region; Lower; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 93.33                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.07                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.98                             |
| upper limit                             | 1.16                             |

**Statistical analysis title**

Statistical analysis 92

**Statistical analysis description:**

TLC; Scan Trimmed; Region; Central; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 27.33                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.95    |
| upper limit         | 1.02    |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 93 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed; Region Central; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 34.15                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.96                             |
| upper limit                             | 1.03                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 94 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region Central; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 58.42                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.98                             |
| upper limit                             | 1.03                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 95 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed; Region;Distal; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 5.93                           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.94                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.86                             |
| upper limit                             | 1.02                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 96 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region; Distal; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 35.88                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.98                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.89                             |
| upper limit                             | 1.08                             |

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 97 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region;Distal; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 86.41 <sup>[164]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.04                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.97    |
| upper limit         | 1.13    |

Notes:

[164] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 98 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed; Region;Total; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 13.52 <sup>[165]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.98                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.94    |
| upper limit | 1.02    |

Notes:

[165] - The data entered for the p-value represents the posterior probability that the true treatment ratio is greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 99 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region;Total; SCRD28 .The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 32.84                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.95    |
| upper limit | 1.03    |

|                                   |                          |
|-----------------------------------|--------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 100 |
|-----------------------------------|--------------------------|

## Statistical analysis description:

TLC; Scan Trimmed; Region;Total; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 78.09                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.98                             |
| upper limit                             | 1.04                             |

**Secondary: Change from Baseline in imaging Airways resistance ( iRaw) measured at FRC and TLC scan conditions, presented in scan trimmed scan types, measured in 5 lobes and 5 regions at Screening, Day 12 and Day 28**

|                 |   |
|-----------------|---|
| End point title | Change from Baseline in imaging Airways resistance ( iRaw) measured at FRC and TLC scan conditions, presented in scan trimmed scan types, measured in 5 lobes and 5 regions at Screening, Day 12 and Day 28 |
|-----------------|---|

## End point description:

iRaw was derived from HRCT to evaluate the effect of once daily inhaled dose of GSK2269557 on lung parameters. It was measured at functional residual volume (FRC) and total lung capacity (TLC). Data was collected at each time point for scan trimmed pairs: SCRD12, SCRD28 & D12D28. At each time point it was measure at 5 lobes (RUL, LUL, RML, RLL & LLL) and 5 Regions (Upper, Lower, Central, Distal & Total). For SCRD12 & SCRD28 scan trimmed pairs the baseline is screening, for D12D28 scan trimmed pair the baseline is D12. Change from baseline is the post-Baseline value minus the Baseline value. Only participants available at the specified time point were analysed (represented by n=X1, X2 in the category title).

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

## End point timeframe:

Baseline, Day 12 and Day 28

| End point values                                  | Placebo                | GSK2269557 1000 mcg    |  |  |
|---|------------------------|------------------------|--|--|
| Subject group type                                | Reporting group        | Reporting group        |  |  |
| Number of subjects analysed                       | 62 <sup>[166]</sup>    | 63                     |  |  |
| Units: Kilopascal (Kpa)*s/L                       |                        |                        |  |  |
| geometric mean (confidence interval 95%)          |                        |                        |  |  |
| FRC; Scan Trimmed; Lobes; RUL; SCRD12 , n =54, 59 | 0.908 (0.62 to 1.33)   | 0.948 (0.693 to 1.296) |  |  |
| FRC; Scan Trimmed; Lobes; RUL; SCRD28 , n=56, 58  | 0.849 (0.529 to 1.362) | 0.958 (0.701 to 1.309) |  |  |
| FRC; Scan Trimmed; Lobes; RUL; D12D28 , n =51, 57 | 1.039 (0.715 to 1.51)  | 0.898 (0.697 to 1.157) |  |  |
| FRC; Scan Trimmed; Lobes; LUL; SCRD12 , n =56, 59 | 0.982 (0.687 to 1.403) | 0.946 (0.706 to 1.267) |  |  |

|  |                        |                        |  |  |
|--|------------------------|------------------------|--|--|
| FRC; Scan Trimmed; Lobes; LUL; SCRD28 , n=56, 58   | 0.937 (0.62 to 1.417)  | 0.82 (0.568 to 1.186)  |  |  |
| FRC; Scan Trimmed; Lobes; LUL; D12D28 , n =53, 57  | 0.842 (0.603 to 1.176) | 0.934 (0.703 to 1.241) |  |  |
| FRC; Scan Trimmed; Lobes; RML; SCRD12 , n =53, 59  | 1.022 (0.667 to 1.568) | 0.998 (0.656 to 1.52)  |  |  |
| FRC; Scan Trimmed; Lobes; RML; SCRD28 , n=53, 58   | 1.378 (0.865 to 2.196) | 0.886 (0.632 to 1.24)  |  |  |
| FRC; Scan Trimmed; Lobes; RML; D12D28 , n =52, 57  | 1.027 (0.692 to 1.523) | 1.198 (0.811 to 1.769) |  |  |
| FRC; Scan Trimmed; Lobes; RLL; SCRD12 , n =54, 59  | 1.1 (0.705 to 1.716)   | 1.043 (0.673 to 1.617) |  |  |
| FRC; Scan Trimmed; Lobes; RLL; SCRD28 , n=55, 58   | 1.504 (1.011 to 2.237) | 1.044 (0.728 to 1.497) |  |  |
| FRC; Scan Trimmed; Lobes; RLL; D12D28 , n =52, 57  | 1.289 (0.953 to 1.745) | 1.126 (0.773 to 1.641) |  |  |
| FRC; Scan Trimmed; Lobes; LLL; SCRD12 , n =53, 58  | 0.781 (0.522 to 1.167) | 0.738 (0.491 to 1.109) |  |  |
| FRC; Scan Trimmed; Lobes; LLL; SCRD28 , n=54, 58   | 0.949 (0.637 to 1.414) | 0.818 (0.546 to 1.227) |  |  |
| FRC; Scan Trimmed; Lobes; LLL; D12D28 , n =51, 56  | 1.051 (0.818 to 1.35)  | 1.012 (0.7 to 1.465)   |  |  |
| FRC; Scan Trimmed; Region;Upper; SCRD12 ,n =56, 59 | 0.934 (0.656 to 1.329) | 0.96 (0.735 to 1.255)  |  |  |
| FRC; Scan Trimmed; Region;Upper; SCRD28 ,n=56, 58  | 0.94 (0.629 to 1.404)  | 0.887 (0.643 to 1.222) |  |  |
| FRC; Scan Trimmed; Region;Upper; D12D28 ,n =53, 57 | 0.869 (0.617 to 1.223) | 1.127 (0.834 to 1.52)  |  |  |
| FRC; Scan Trimmed; Region;Lower; SCRD12 ,n =54, 59 | 0.845 (0.543 to 1.314) | 0.821 (0.531 to 1.27)  |  |  |
| FRC; Scan Trimmed; Region; Lower; SCRD28 ,n=55, 58 | 1.215 (0.835 to 1.766) | 0.868 (0.606 to 1.243) |  |  |
| FRC; Scan Trimmed; Region;Lower; D12D28 ,n =52, 57 | 1.113 (0.887 to 1.396) | 1.193 (0.805 to 1.766) |  |  |
| FRC;Scan Trimmed;Region;Central; SCRD12 ,n =56, 59 | 1.104 (0.832 to 1.464) | 0.933 (0.769 to 1.133) |  |  |
| FRC;Scan Trimmed; Region Central; SCRD28 ,n=56, 58 | 1.079 (0.794 to 1.465) | 0.95 (0.81 to 1.114)   |  |  |
| FRC;Scan Trimmed;Region Central; D12D28 ,n =53, 57 | 1.033 (0.851 to 1.253) | 1.01 (0.854 to 1.195)  |  |  |
| FRC;Scan Trimmed; Region;Distal; SCRD12 ,n =56, 59 | 0.8 (0.546 to 1.174)   | 0.859 (0.6 to 1.23)    |  |  |
| FRC;Scan Trimmed;Region; Distal; SCRD28 , n=56, 58 | 0.993 (0.675 to 1.459) | 0.873 (0.636 to 1.199) |  |  |
| FRC;Scan Trimmed;Region;Distal; D12D28 , n =53, 57 | 0.887 (0.67 to 1.175)  | 1.22 (0.89 to 1.674)   |  |  |
| FRC;Scan Trimmed; Region;Total; SCRD12 , n =56, 59 | 1.006 (0.76 to 1.333)  | 0.919 (0.738 to 1.145) |  |  |
| FRC;Scan Trimmed;Region;Total; SCRD28 , n=56, 58   | 1.036 (0.758 to 1.417) | 0.922 (0.75 to 1.132)  |  |  |
| FRC; Scan Trimmed;Region;Total; D12D28 , n =53, 57 | 1 (0.82 to 1.22)       | 1.066 (0.875 to 1.298) |  |  |
| TLC; Scan Trimmed; Lobes; RUL; SCRD12 , n =56, 59  | 0.843 (0.677 to 1.049) | 0.978 (0.81 to 1.181)  |  |  |
| TLC; Scan Trimmed; Lobes; RUL; SCRD28 , n=56, 58   | 0.929 (0.714 to 1.21)  | 1.019 (0.826 to 1.258) |  |  |
| TLC; Scan Trimmed; Lobes; RUL; D12D28 , n =53, 57  | 1.152 (0.953 to 1.391) | 0.901 (0.759 to 1.069) |  |  |
| TLC; Scan Trimmed; Lobes; LUL; SCRD12 , n =56, 59  | 0.879 (0.717 to 1.077) | 0.979 (0.829 to 1.156) |  |  |
| TLC; Scan Trimmed; Lobes; LUL; SCRD28 , n=56, 58   | 0.922 (0.726 to 1.173) | 0.886 (0.687 to 1.141) |  |  |



|  |                        |                        |  |  |
|--|------------------------|------------------------|--|--|
| TLC; Scan Trimmed; Lobes; LUL; D12D28 , n =53, 57  | 1.025 (0.857 to 1.226) | 0.894 (0.75 to 1.066)  |  |  |
| TLC; Scan Trimmed; Lobes; RML; SCRD12 , n =57, 58  | 1.076 (0.834 to 1.388) | 1.349 (1.001 to 1.816) |  |  |
| TLC; Scan Trimmed; Lobes; RML; SCRD28 , n=56, 59   | 0.989 (0.722 to 1.355) | 1.22 (0.909 to 1.637)  |  |  |
| TLC; Scan Trimmed; Lobes; RML; D12D28 , n =56, 58  | 1.102 (0.869 to 1.397) | 0.988 (0.771 to 1.266) |  |  |
| TLC; Scan Trimmed; Lobes; RLL; SCRD12 , n =56, 59  | 0.848 (0.587 to 1.225) | 1.143 (0.9 to 1.451)   |  |  |
| TLC; Scan Trimmed; Lobes; RLL; SCRD28 , n=56, 58   | 0.965 (0.688 to 1.352) | 1.122 (0.868 to 1.452) |  |  |
| TLC; Scan Trimmed; Lobes; RLL; D12D28 , n =53, 57  | 1.208 (0.941 to 1.55)  | 0.927 (0.775 to 1.109) |  |  |
| TLC; Scan Trimmed; Lobes; LLL; SCRD12 , n =55, 59  | 0.813 (0.605 to 1.093) | 1.139 (0.893 to 1.453) |  |  |
| TLC; Scan Trimmed; Lobes; LLL; SCRD28 , n=55, 58   | 0.958 (0.682 to 1.346) | 0.987 (0.758 to 1.285) |  |  |
| TLC; Scan Trimmed; Lobes; LLL; D12D28 , n=52, 57   | 1.313 (1.022 to 1.686) | 0.829 (0.67 to 1.026)  |  |  |
| TLC; Scan Trimmed; Region;Upper; SCRD12 ,n =56, 59 | 0.913 (0.754 to 1.106) | 1.103 (0.911 to 1.335) |  |  |
| TLC; Scan Trimmed; Region;Upper; SCRD28 ,n=56, 58  | 0.958 (0.751 to 1.222) | 0.957 (0.764 to 1.2)   |  |  |
| TLC; Scan Trimmed; Region;Upper; D12D28 ,n =53, 57 | 1.067 (0.896 to 1.27)  | 0.885 (0.752 to 1.04)  |  |  |
| TLC; Scan Trimmed; Region;Lower; SCRD12 ,n =56, 59 | 0.85 (0.621 to 1.163)  | 1.116 (0.897 to 1.388) |  |  |
| TLC; Scan Trimmed; Region; Lower; SCRD28 ,n=56, 58 | 0.953 (0.676 to 1.344) | 1.056 (0.827 to 1.347) |  |  |
| TLC; Scan Trimmed; Region;Lower; D12D28 ,n =53, 57 | 1.269 (1.021 to 1.578) | 0.862 (0.723 to 1.028) |  |  |
| TLC;Scan Trimmed;Region;Central; SCRD12 ,n =56, 59 | 0.96 (0.841 to 1.095)  | 1.007 (0.937 to 1.081) |  |  |
| TLC;Scan Trimmed; Region Central; SCRD28 ,n=56, 58 | 0.976 (0.838 to 1.136) | 1 (0.933 to 1.07)      |  |  |
| TLC;Scan Trimmed;Region Central; D12D28 ,n =53, 57 | 1.039 (0.945 to 1.142) | 0.981 (0.932 to 1.032) |  |  |
| TLC;Scan Trimmed; Region;Distal; SCRD12 ,n =56, 59 | 0.889 (0.68 to 1.161)  | 1.116 (0.913 to 1.364) |  |  |
| TLC;Scan Trimmed;Region; Distal; SCRD28 , n=56, 58 | 0.945 (0.698 to 1.279) | 0.976 (0.793 to 1.201) |  |  |
| TLC;Scan Trimmed;Region;Distal; D12D28 , n =53, 57 | 1.189 (1 to 1.414)     | 0.838 (0.719 to 0.976) |  |  |
| TLC;Scan Trimmed; Region;Total; SCRD12 , n =56, 59 | 0.891 (0.762 to 1.042) | 1.061 (0.937 to 1.202) |  |  |
| TLC;Scan Trimmed;Region;Total; SCRD28 , n=56, 58   | 0.956 (0.781 to 1.171) | 0.989 (0.861 to 1.136) |  |  |
| TLC; Scan Trimmed;Region;Total; D12D28 , n =53, 57 | 1.133 (0.99 to 1.296)  | 0.904 (0.816 to 1.002) |  |  |

Notes:

[166] - ITT Population excluding the subject with a pacemaker.

## Statistical analyses

| Statistical analysis title   | Statistical analysis 1        |
|--|-------------------------------|
| Statistical analysis description:  |                               |
| FRC; Scan Trimmed; Lobes; RUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                               |
| Comparison groups  | GSK2269557 1000 mcg v Placebo |

|   |                                  |
|---|----------------------------------|
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other <sup>[167]</sup>           |
| P-value                                 | = 60.07 <sup>[168]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.95                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.66                             |
| upper limit                             | 1.39                             |

Notes:

[167] - Comment for all statistical analysis, where method = Bayesian repeated measures model: Non-informative priors used for all modelling parameters. Unstructured covariance matrix fitted, accounting for correlation within region and visit.

[168] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 2 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 51.75 <sup>[169]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.65                             |
| upper limit                             | 1.53                             |

Notes:

[169] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 3 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 65.66 <sup>[170]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.92                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.6     |
| upper limit         | 1.4     |

Notes:

[170] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 4 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 81.67 <sup>[171]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.85                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.59    |
| upper limit | 1.21    |

Notes:

[171] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 5 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 89.98 <sup>[172]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.77                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.51    |
| upper limit | 1.15    |

Notes:

[172] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 6 |
|-----------------------------------|------------------------|

**Statistical analysis description:**

FRC; Scan Trimmed; Lobes; LUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 43.88 <sup>[173]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.7                              |
| upper limit                             | 1.51                             |

**Notes:**

[173] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 8 |
|-----------------------------------|------------------------|

**Statistical analysis description:**

FRC; Scan Trimmed; Lobes; RML; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 95.74 <sup>[174]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.7                              |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.47                             |
| upper limit                             | 1.05                             |

**Notes:**

[174] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 7 |
|-----------------------------------|------------------------|

**Statistical analysis description:**

FRC; Scan Trimmed; Lobes; RML; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 36.1 <sup>[175]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.1                              |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.64    |
| upper limit         | 1.91    |

Notes:

[175] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 9 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RML; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 50.74 <sup>[176]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.67    |
| upper limit | 1.48    |

Notes:

[176] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 10 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 72.81 <sup>[177]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.85                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.51    |
| upper limit | 1.44    |

Notes:

[177] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 11 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 94.41 <sup>[178]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.73                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.5                              |
| upper limit                             | 1.08                             |

Notes:

[178] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 12 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 81.07 <sup>[179]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.83                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.55                             |
| upper limit                             | 1.25                             |

Notes:

[179] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 13 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 69.29 <sup>[180]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.87                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.5     |
| upper limit         | 1.51    |

Notes:

[180] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 14 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 73.67 <sup>[181]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.86                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.54    |
| upper limit | 1.37    |

Notes:

[181] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 15 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 75.82 <sup>[182]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.87                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.59    |
| upper limit | 1.29    |

Notes:

[182] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 16 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Upper; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 54.22 <sup>[183]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.98                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.69                             |
| upper limit                             | 1.39                             |

Notes:

[183] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 17 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Upper; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 66.46 <sup>[184]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.92                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.63                             |
| upper limit                             | 1.35                             |

Notes:

[184] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 18 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Upper; D12D28 . The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 21.45 <sup>[185]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.16                             |



|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.79    |
| upper limit         | 1.71    |

Notes:

[185] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 19 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region; Lower; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 69.91 <sup>[186]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.86                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.5     |
| upper limit | 1.5     |

Notes:

[186] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 20 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region; Lower; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 75.29 <sup>[187]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.86                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.57    |
| upper limit | 1.31    |

Notes:

[187] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 21 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Lower; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 44.05 <sup>[188]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.68                             |
| upper limit                             | 1.58                             |

Notes:

[188] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 22 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region;Central; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 94.93 <sup>[189]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.82                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.65                             |
| upper limit                             | 1.04                             |

Notes:

[189] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 23 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed; Region Central; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 97.11 <sup>[190]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.77                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.59    |
| upper limit         | 1.01    |

Notes:

[190] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 24 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region Central; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 85.41 <sup>[191]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.89                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.7     |
| upper limit | 1.11    |

Notes:

[191] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 25 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed; Region;Distal; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 54.73 <sup>[192]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.97                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.62    |
| upper limit | 1.53    |

Notes:

[192] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 26 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region; Distal; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 72.31 <sup>[193]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.89                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.61                             |
| upper limit                             | 1.3                              |

Notes:

[193] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 27 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region;Distal; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 15.05 <sup>[194]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.21                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.84                             |
| upper limit                             | 1.75                             |

Notes:

[194] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 28 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed; Region;Total; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 84.87 <sup>[195]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.88                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.68    |
| upper limit         | 1.13    |

Notes:

[195] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 29 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region; Total; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 92.24 <sup>[196]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.82                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.63    |
| upper limit | 1.08    |

Notes:

[196] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 30 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region; Total; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 63.42 <sup>[197]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.96                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.75    |
| upper limit | 1.22    |

Notes:

[197] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 31 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 9.05 <sup>[198]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.17                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.93                             |
| upper limit                             | 1.46                             |

Notes:

[198] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 32 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 66.4 <sup>[199]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.95                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.74                             |
| upper limit                             | 1.22                             |

Notes:

[199] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 33 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 97.39 <sup>[200]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.78                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.6     |
| upper limit         | 1       |

Notes:

[200] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 34 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 16.02 <sup>[201]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.13                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.89    |
| upper limit | 1.42    |

Notes:

[201] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 35 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 75.69 <sup>[202]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.9                              |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.68    |
| upper limit | 1.21    |

Notes:

[202] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 37 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RML; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 9.64 <sup>[203]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.21                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.91                             |
| upper limit                             | 1.62                             |

Notes:

[203] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 36 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 90.22 <sup>[204]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.86                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.69                             |
| upper limit                             | 1.08                             |

Notes:

[204] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 38 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RML; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 20.44 <sup>[205]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.15                             |



|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.82    |
| upper limit         | 1.61    |

Notes:

[205] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 39 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RML; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 55.06 <sup>[206]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.98                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.73    |
| upper limit | 1.31    |

Notes:

[206] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 40 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 5.29 <sup>[207]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.36                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.94    |
| upper limit | 1.97    |

Notes:

[207] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 41 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 28.82 <sup>[208]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.11                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.77                             |
| upper limit                             | 1.6                              |

Notes:

[208] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 42 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 93 <sup>[209]</sup>            |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.81                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.61                             |
| upper limit                             | 1.07                             |

Notes:

[209] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 43 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 1.64 <sup>[210]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.42                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 1.03    |
| upper limit         | 1.95    |

Notes:

[210] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 44 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 50.71 <sup>[211]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.72    |
| upper limit | 1.38    |

Notes:

[211] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 45 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 99.52 <sup>[212]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.68                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.51    |
| upper limit | 0.91    |

Notes:

[212] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 46 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Upper; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 3.1 <sup>[213]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.22                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.99                             |
| upper limit                             | 1.51                             |

Notes:

[213] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 47 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Upper; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 75.39 <sup>[214]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.92                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.71                             |
| upper limit                             | 1.18                             |

Notes:

[214] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 48 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Upper; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 93.29 <sup>[215]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.85                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.68    |
| upper limit         | 1.05    |

Notes:

[215] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 49 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Lower; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 3.79 <sup>[216]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.33                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.97    |
| upper limit | 1.82    |

Notes:

[216] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 51 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Lower; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 99.32 <sup>[217]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.72                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.56    |
| upper limit | 0.93    |

Notes:

[217] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 50 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region; Lower; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 36.75 <sup>[218]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.06                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.76                             |
| upper limit                             | 1.48                             |

Notes:

[218] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 52 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region;Central; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 18.91 <sup>[219]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.06                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.93                             |
| upper limit                             | 1.2                              |

Notes:

[219] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 53 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed; Region Central; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 47.35 <sup>[220]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.87    |
| upper limit         | 1.15    |

Notes:

[220] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 54 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region Central; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 78 <sup>[221]</sup>            |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.96                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.86    |
| upper limit | 1.07    |

Notes:

[221] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 55 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed; Region;Distal; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 2.65 <sup>[222]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.29                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 1       |
| upper limit | 1.67    |

Notes:

[222] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 56 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region; Distal; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 58.48 <sup>[223]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.97                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.73                             |
| upper limit                             | 1.29                             |

Notes:

[223] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 57 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region;Distal; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 99.64 <sup>[224]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.75                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.61                             |
| upper limit                             | 0.92                             |

Notes:

[224] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 58 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed; Region;Total; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 1.9 <sup>[225]</sup>           |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.19                             |



|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 1.01    |
| upper limit         | 1.4     |

Notes:

[225] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 59 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region; Total; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 63.03 <sup>[226]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.97                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.81    |
| upper limit | 1.16    |

Notes:

[226] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 60 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region; Total; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 99.19 <sup>[227]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.83                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.72    |
| upper limit | 0.97    |

Notes:

[227] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

**Secondary: Change from Baseline in imaging specific airways resistance: siRaw measured at FRC and TLC scan conditions, presented in scan trimmed scan types, measured in 5 lobes and 5 regions at Screening, Day 12 and Day 28**

|   |   |
|---|---|
| End point title   | Change from Baseline in imaging specific airways resistance: siRaw measured at FRC and TLC scan conditions, presented in scan trimmed scan types, measured in 5 lobes and 5 regions at Screening, Day 12 and Day 28 |
| End point description:  |   |
| siRaw was derived from HRCT to evaluate the effect of once daily inhaled dose of GSK2269557 on lung parameters. It was measured at functional residual volume (FRC) and total lung capacity (TLC). Data was collected at each time point for scan trimmed pairs: SCRD12, SCRD28 & D12D28. At each time point it was measure at 5 lobes (RUL, LUL, RML, RLL & LLL) and 5 Regions (Upper, Lower, Central, Distal & Total). For SCRD12 & SCRD28 scan trimmed pairs the baseline is screening, for D12D28 scan trimmed pair the baseline is D12. Change from baseline is the post-Baseline value minus the Baseline value. Only participants available at the specified time point were analysed (represented by n=X1, X2 in the category title). |   |
| End point type  | Secondary   |
| End point timeframe:  |   |
| Baseline, Day 12 and Day 28   |   |

| End point values                                   | Placebo                | GSK2269557<br>1000 mcg |  |  |
|--|------------------------|------------------------|--|--|
| Subject group type                                 | Reporting group        | Reporting group        |  |  |
| Number of subjects analysed                        | 62 <sup>[228]</sup>    | 63                     |  |  |
| Units: Kpa*s                                       |                        |                        |  |  |
| geometric mean (confidence interval 95%)           |                        |                        |  |  |
| FRC; Scan Trimmed; Lobes; RUL; SCRD12 , n =54, 57  | 0.896 (0.613 to 1.31)  | 0.908 (0.669 to 1.231) |  |  |
| FRC; Scan Trimmed; Lobes; RUL; SCRD28 , n=56, 56   | 0.829 (0.516 to 1.333) | 1.013 (0.757 to 1.355) |  |  |
| FRC; Scan Trimmed; Lobes; RUL; D12D28 , n =51, 55  | 1.035 (0.712 to 1.505) | 0.926 (0.72 to 1.191)  |  |  |
| FRC; Scan Trimmed; Lobes; LUL; SCRD12 , n =56, 59  | 0.957 (0.671 to 1.365) | 0.944 (0.715 to 1.247) |  |  |
| FRC; Scan Trimmed; Lobes; LUL; SCRD28 , n=56, 58   | 0.919 (0.61 to 1.383)  | 0.834 (0.585 to 1.189) |  |  |
| FRC; Scan Trimmed; Lobes; LUL; D12D28 , n =53, 57  | 0.849 (0.608 to 1.184) | 0.948 (0.717 to 1.254) |  |  |
| FRC; Scan Trimmed; Lobes; RML; SCRD12 , n =52, 58  | 1.009 (0.655 to 1.553) | 1.013 (0.669 to 1.533) |  |  |
| FRC; Scan Trimmed; Lobes; RML; SCRD28 , n=53, 57   | 1.349 (0.856 to 2.125) | 0.904 (0.649 to 1.261) |  |  |
| FRC; Scan Trimmed; Lobes; RML; D12D28 , n =52, 56  | 1.028 (0.695 to 1.521) | 1.213 (0.818 to 1.798) |  |  |
| FRC; Scan Trimmed; Lobes; RLL; SCRD12 , n =54, 59  | 1.078 (0.687 to 1.691) | 1.046 (0.671 to 1.632) |  |  |
| FRC; Scan Trimmed; Lobes; RLL; SCRD28 , n=55, 58   | 1.468 (0.99 to 2.177)  | 1.053 (0.736 to 1.507) |  |  |
| FRC; Scan Trimmed; Lobes; RLL; D12D28 , n =52, 57  | 1.284 (0.94 to 1.754)  | 1.13 (0.778 to 1.641)  |  |  |
| FRC; Scan Trimmed; Lobes; LLL; SCRD12 , n =53, 58  | 0.755 (0.506 to 1.127) | 0.725 (0.479 to 1.098) |  |  |
| FRC; Scan Trimmed; Lobes; LLL; SCRD28 , n=54, 58   | 0.93 (0.629 to 1.375)  | 0.811 (0.539 to 1.22)  |  |  |
| FRC; Scan Trimmed; Lobes; LLL; D12D28 , n =51, 56  | 1.063 (0.829 to 1.362) | 1.017 (0.702 to 1.476) |  |  |
| FRC; Scan Trimmed; Region;Upper; SCRD12 ,n =56, 59 | 0.915 (0.645 to 1.3)   | 0.956 (0.74 to 1.237)  |  |  |
| FRC; Scan Trimmed; Region;Upper; SCRD28 ,n=56, 58  | 0.919 (0.617 to 1.37)  | 0.898 (0.659 to 1.223) |  |  |

|   |                           |                           |  |  |
|---|---------------------------|---------------------------|--|--|
| FRC; Scan Trimmed; Region;Upper;<br>D12D28 ,n =53, 57 | 0.87 (0.62 to<br>1.22)    | 1.142 (0.849<br>to 1.536) |  |  |
| FRC; Scan Trimmed; Region;Lower;<br>SCRD12 ,n =54, 59 | 0.825 (0.53 to<br>1.283)  | 0.816 (0.524<br>to 1.27)  |  |  |
| FRC; Scan Trimmed; Region; Lower;<br>SCRD28 ,n=55, 58 | 1.188 (0.821<br>to 1.718) | 0.869 (0.606<br>to 1.246) |  |  |
| FRC; Scan Trimmed; Region;Lower;<br>D12D28 ,n =52, 57 | 1.114 (0.881<br>to 1.409) | 1.2 (0.81 to<br>1.777)    |  |  |
| FRC;Scan Trimmed;Region;Central;<br>SCRD12 ,n =56, 59 | 1.077 (0.813<br>to 1.425) | 0.928 (0.762<br>to 1.13)  |  |  |
| FRC;Scan Trimmed; Region Central;<br>SCRD28 ,n=56, 58 | 1.053 (0.777<br>to 1.427) | 0.957 (0.817<br>to 1.121) |  |  |
| FRC;Scan Trimmed;Region Central;<br>D12D28 ,n =53, 57 | 1.035 (0.851<br>to 1.259) | 1.022 (0.863<br>to 1.21)  |  |  |
| FRC;Scan Trimmed; Region;Distal;<br>SCRD12 ,n =56, 59 | 0.781 (0.533<br>to 1.144) | 0.854 (0.598<br>to 1.22)  |  |  |
| FRC;Scan Trimmed;Region; Distal;<br>SCRD28 , n=56, 58 | 0.969 (0.661<br>to 1.421) | 0.88 (0.645 to<br>1.202)  |  |  |
| FRC;Scan Trimmed;Region;Distal;<br>D12D28 , n =53, 57 | 0.89 (0.672 to<br>1.179)  | 1.234 (0.903<br>to 1.687) |  |  |
| FRC;Scan Trimmed; Region;Total;<br>SCRD12 , n =56, 59 | 0.982 (0.741<br>to 1.3)   | 0.914 (0.732<br>to 1.14)  |  |  |
| FRC;Scan Trimmed;Region;Total;<br>SCRD28 , n=56, 58   | 1.012 (0.742<br>to 1.378) | 0.929 (0.76 to<br>1.136)  |  |  |
| FRC; Scan Trimmed;Region;Total;<br>D12D28 , n =53, 57 | 1.003 (0.821<br>to 1.225) | 1.078 (0.886<br>to 1.311) |  |  |
| TLC; Scan Trimmed; Lobes; RUL;<br>SCRD12 , n =56, 59  | 0.848 (0.686<br>to 1.049) | 0.989 (0.816<br>to 1.198) |  |  |
| TLC; Scan Trimmed; Lobes; RUL;<br>SCRD28 , n=56, 58   | 0.934 (0.725<br>to 1.203) | 1.043 (0.846<br>to 1.285) |  |  |
| TLC; Scan Trimmed; Lobes; RUL;<br>D12D28 , n =53, 57  | 1.142 (0.945<br>to 1.379) | 0.903 (0.757<br>to 1.077) |  |  |
| TLC; Scan Trimmed; Lobes; LUL;<br>SCRD12 , n =56, 59  | 0.88 (0.721 to<br>1.074)  | 0.977 (0.832<br>to 1.148) |  |  |
| TLC; Scan Trimmed; Lobes; LUL;<br>SCRD28 , n=56, 58   | 0.926 (0.736<br>to 1.165) | 0.885 (0.69 to<br>1.134)  |  |  |
| TLC; Scan Trimmed; Lobes; LUL;<br>D12D28 , n =53, 57  | 1.023 (0.856<br>to 1.221) | 0.896 (0.751<br>to 1.069) |  |  |
| TLC; Scan Trimmed; Lobes; RML;<br>SCRD12 , n =57, 58  | 1.073 (0.829<br>to 1.39)  | 1.343 (0.995<br>to 1.814) |  |  |
| TLC; Scan Trimmed; Lobes; RML;<br>SCRD28 , n=56, 59   | 0.981 (0.727<br>to 1.324) | 1.238 (0.921<br>to 1.664) |  |  |
| TLC; Scan Trimmed; Lobes; RML;<br>D12D28 , n =56, 58  | 1.093 (0.867<br>to 1.377) | 1.01 (0.782 to<br>1.303)  |  |  |
| TLC; Scan Trimmed; Lobes; RLL;<br>SCRD12 , n =56, 59  | 0.854 (0.595<br>to 1.226) | 1.149 (0.91 to<br>1.449)  |  |  |
| TLC; Scan Trimmed; Lobes; RLL;<br>SCRD28 , n=56, 58   | 0.964 (0.695<br>to 1.337) | 1.134 (0.887<br>to 1.45)  |  |  |
| TLC; Scan Trimmed; Lobes; RLL;<br>D12D28 , n =53, 57  | 1.192 (0.937<br>to 1.518) | 0.935 (0.782<br>to 1.117) |  |  |
| TLC; Scan Trimmed; Lobes; LLL;<br>SCRD12 , n =55, 59  | 0.82 (0.617 to<br>1.089)  | 1.126 (0.891<br>to 1.424) |  |  |
| TLC; Scan Trimmed; Lobes; LLL;<br>SCRD28 , n=55, 58   | 0.96 (0.69 to<br>1.335)   | 0.985 (0.76 to<br>1.276)  |  |  |
| TLC; Scan Trimmed; Lobes; LLL;<br>D12D28 , n=52, 57   | 1.302 (1.013<br>to 1.674) | 0.839 (0.679<br>to 1.037) |  |  |
| TLC; Scan Trimmed; Region;Upper;<br>SCRD12 ,n =56, 59 | 0.917 (0.76 to<br>1.106)  | 1.1 (0.912 to<br>1.327)   |  |  |
| TLC; Scan Trimmed; Region;Upper;<br>SCRD28 ,n=56, 58  | 0.961 (0.762<br>to 1.213) | 0.957 (0.767<br>to 1.195) |  |  |
| TLC; Scan Trimmed; Region;Upper;<br>D12D28 ,n =53, 57 | 1.06 (0.891 to<br>1.262)  | 0.888 (0.755<br>to 1.045) |  |  |

|   |                           |                           |  |  |
|---|---------------------------|---------------------------|--|--|
| TLC; Scan Trimmed; Region;Lower;<br>SCRD12 ,n =56, 59 | 0.856 (0.631<br>to 1.162) | 1.112 (0.9 to<br>1.374)   |  |  |
| TLC; Scan Trimmed; Region; Lower;<br>SCRD28 ,n=56, 58 | 0.954 (0.683<br>to 1.332) | 1.061 (0.838<br>to 1.342) |  |  |
| TLC; Scan Trimmed; Region;Lower;<br>D12D28 ,n =53, 57 | 1.256 (1.015<br>to 1.553) | 0.871 (0.731<br>to 1.038) |  |  |
| TLC;Scan Trimmed;Region;Central;<br>SCRD12 ,n =56, 59 | 0.963 (0.85 to<br>1.092)  | 1.004 (0.931<br>to 1.083) |  |  |
| TLC;Scan Trimmed; Region Central;<br>SCRD28 ,n=56, 58 | 0.977 (0.852<br>to 1.121) | 1.002 (0.927<br>to 1.082) |  |  |
| TLC;Scan Trimmed;Region Central;<br>D12D28 ,n =53, 57 | 1.032 (0.939<br>to 1.135) | 0.988 (0.941<br>to 1.037) |  |  |
| TLC;Scan Trimmed; Region;Distal;<br>SCRD12 ,n =56, 59 | 0.892 (0.688<br>to 1.157) | 1.112 (0.915<br>to 1.353) |  |  |
| TLC;Scan Trimmed;Region; Distal;<br>SCRD28 , n=56, 58 | 0.946 (0.705<br>to 1.27)  | 0.978 (0.8 to<br>1.195)   |  |  |
| TLC;Scan Trimmed;Region;Distal;<br>D12D28 , n =53, 57 | 1.181 (0.996<br>to 1.401) | 0.844 (0.724<br>to 0.983) |  |  |
| TLC;Scan Trimmed; Region;Total;<br>SCRD12 , n =56, 59 | 0.895 (0.771<br>to 1.038) | 1.058 (0.938<br>to 1.194) |  |  |
| TLC;Scan Trimmed;Region;Total;<br>SCRD28 , n=56, 58   | 0.958 (0.793<br>to 1.158) | 0.991 (0.867<br>to 1.133) |  |  |
| TLC; Scan Trimmed;Region;Total;<br>D12D28 , n =53, 57 | 1.125 (0.986<br>to 1.285) | 0.911 (0.822<br>to 1.008) |  |  |

Notes:

[228] - ITT Population excluding the subject with a pacemaker.

## Statistical analyses

| Statistical analysis title   | Statistical analysis 1                   |
|--|--|
| Statistical analysis description:  |  |
| FRC; Scan Trimmed; Lobes; RUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |  |
| Comparison groups  | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis  | 125                                      |
| Analysis specification   | Pre-specified                            |
| Analysis type  | other <sup>[229]</sup>                   |
| P-value  | = 67.19 <sup>[230]</sup>                 |
| Method   | Bayesian repeated measures random effect |
| Parameter estimate   | Posterior Median Ratio                   |
| Point estimate   | 0.92                                     |
| Confidence interval  |  |
| level  | 95 %                                     |
| sides  | 2-sided                                  |
| lower limit  | 0.64                                     |
| upper limit  | 1.33                                     |

Notes:

[229] - Comment for all statistical analysis, where method = Bayesian repeated measures model: Non-informative priors used for all modelling parameters. Unstructured covariance matrix fitted, accounting for correlation within region and visit.

[230] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

| Statistical analysis title   | Statistical analysis 2 |
|--|------------------------|
| Statistical analysis description:  |                        |
| FRC; Scan Trimmed; Lobes; RUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                        |

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 44.8 <sup>[231]</sup>                  |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 1.03                                     |
| Confidence interval                     |  |
| level                                   | 95 %                                     |
| sides                                   | 2-sided                                  |
| lower limit                             | 0.66                                     |
| upper limit                             | 1.61                                     |

Notes:

[231] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 3 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 59.9 <sup>[232]</sup>                  |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.95                                     |
| Confidence interval                     |  |
| level                                   | 95 %                                     |
| sides                                   | 2-sided                                  |
| lower limit                             | 0.61                                     |
| upper limit                             | 1.46                                     |

Notes:

[232] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 4 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 70.12 <sup>[233]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.91                                     |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.63    |
| upper limit         | 1.31    |

Notes:

[233] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 5 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 83.98 <sup>[234]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.82                                     |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.54    |
| upper limit | 1.22    |

Notes:

[234] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 6 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 34.93 <sup>[235]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 1.08                                     |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.73    |
| upper limit | 1.57    |

Notes:

[235] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 7 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RML; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 32.45 <sup>[236]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 1.14                                     |
| Confidence interval                     |  |
| level                                   | 95 %                                     |
| sides                                   | 2-sided                                  |
| lower limit                             | 0.65                                     |
| upper limit                             | 1.96                                     |

Notes:

[236] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 8 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RML; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 95.35 <sup>[237]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.7                                      |
| Confidence interval                     |  |
| level                                   | 95 %                                     |
| sides                                   | 2-sided                                  |
| lower limit                             | 0.46                                     |
| upper limit                             | 1.06                                     |

Notes:

[237] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 9 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RML; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 50.1 <sup>[238]</sup>                  |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 1  |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.66    |
| upper limit         | 1.54    |

Notes:

[238] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 10 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 59.37 <sup>[239]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.94                                     |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.55    |
| upper limit | 1.6     |

Notes:

[239] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 11 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; RLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 87.99 <sup>[240]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.8                                      |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.55    |
| upper limit | 1.17    |

Notes:

[240] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 12 |
|-----------------------------------|-------------------------|



**Statistical analysis description:**

FRC; Scan Trimmed; Lobes; RLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 70.87 <sup>[241]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.89                                     |
| Confidence interval                     |  |
| level                                   | 95 %                                     |
| sides                                   | 2-sided                                  |
| lower limit                             | 0.59                                     |
| upper limit                             | 1.36                                     |

**Notes:**

[241] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 13 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC; Scan Trimmed; Lobes; LLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 63.71 <sup>[242]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.91                                     |
| Confidence interval                     |  |
| level                                   | 95 %                                     |
| sides                                   | 2-sided                                  |
| lower limit                             | 0.51                                     |
| upper limit                             | 1.6                                      |

**Notes:**

[242] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 14 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC; Scan Trimmed; Lobes; LLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 65.99 <sup>[243]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.91                                     |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.57    |
| upper limit         | 1.44    |

Notes:

[243] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 15 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Lobes; LLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 71.95 <sup>[244]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.89                                     |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.6     |
| upper limit | 1.32    |

Notes:

[244] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 16 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Upper; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 48.28 <sup>[245]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 1.01                                     |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.71    |
| upper limit | 1.43    |

Notes:

[245] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 17 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Upper; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 61.06 <sup>[246]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.95                                     |
| Confidence interval                     |  |
| level                                   | 95 %                                     |
| sides                                   | 2-sided                                  |
| lower limit                             | 0.65                                     |
| upper limit                             | 1.39                                     |

Notes:

[246] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 18 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Upper; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 18.05 <sup>[247]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 1.19                                     |
| Confidence interval                     |  |
| level                                   | 95 %                                     |
| sides                                   | 2-sided                                  |
| lower limit                             | 0.82                                     |
| upper limit                             | 1.74                                     |

Notes:

[247] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 19 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region;Lower; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 61.12 <sup>[248]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.92                                     |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.53    |
| upper limit         | 1.61    |

Notes:

[248] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 20 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region; Lower; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 64.4 <sup>[249]</sup>                  |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.92                                     |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.61    |
| upper limit | 1.41    |

Notes:

[249] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 21 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed; Region; Lower; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 38.12 <sup>[250]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 1.07                                     |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.69    |
| upper limit | 1.66    |

Notes:

[250] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 22 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region;Central; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 91 <sup>[251]</sup>                    |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.85                                     |
| Confidence interval                     |  |
| level                                   | 95 %                                     |
| sides                                   | 2-sided                                  |
| lower limit                             | 0.67                                     |
| upper limit                             | 1.08                                     |

Notes:

[251] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 23 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed; Region Central; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 94.52 <sup>[252]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.81                                     |
| Confidence interval                     |  |
| level                                   | 95 %                                     |
| sides                                   | 2-sided                                  |
| lower limit                             | 0.62                                     |
| upper limit                             | 1.05                                     |

Notes:

[252] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 24 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region Central; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 82.11 <sup>[253]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.9                                      |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.72    |
| upper limit         | 1.13    |

Notes:

[253] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 25 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed; Region;Distal; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 48.1 <sup>[254]</sup>                  |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 1.01                                     |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.64    |
| upper limit | 1.6     |

Notes:

[254] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 26 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region; Distal; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 65.66 <sup>[255]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.93                                     |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.64    |
| upper limit | 1.36    |

Notes:

[255] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 27 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region;Distal; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 11.46 <sup>[256]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 1.25                                     |
| Confidence interval                     |  |
| level                                   | 95 %                                     |
| sides                                   | 2-sided                                  |
| lower limit                             | 0.87                                     |
| upper limit                             | 1.8                                      |

Notes:

[256] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 28 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed; Region;Total; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 77.2 <sup>[257]</sup>                  |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.91                                     |
| Confidence interval                     |  |
| level                                   | 95 %                                     |
| sides                                   | 2-sided                                  |
| lower limit                             | 0.7                                      |
| upper limit                             | 1.17                                     |

Notes:

[257] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 29 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC;Scan Trimmed;Region;Total; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 87.35 <sup>[258]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.86                                     |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.66    |
| upper limit         | 1.11    |

Notes:

[258] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 30 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC; Scan Trimmed;Region;Total; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |  |
|---|--|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo            |
| Number of subjects included in analysis | 125                                      |
| Analysis specification                  | Pre-specified                            |
| Analysis type                           | other                                    |
| P-value                                 | = 56.53 <sup>[259]</sup>                 |
| Method                                  | Bayesian repeated measures random effect |
| Parameter estimate                      | Posterior Median Ratio                   |
| Point estimate                          | 0.98                                     |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.77    |
| upper limit | 1.25    |

Notes:

[259] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 31 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 7.29 <sup>[260]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.19                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.94    |
| upper limit | 1.5     |

Notes:

[260] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 32 |
|-----------------------------------|-------------------------|



Statistical analysis description:

TLC; Scan Trimmed; Lobes; RUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 55.09 <sup>[261]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.98                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.75                             |
| upper limit                             | 1.28                             |

Notes:

[261] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 33 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 96.49 <sup>[262]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.79                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.61                             |
| upper limit                             | 1.02                             |

Notes:

[262] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 34 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LUL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 14.54 <sup>[263]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.13                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.9     |
| upper limit         | 1.44    |

Notes:

[263] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 35 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LUL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 66.85 <sup>[264]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.94                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.71    |
| upper limit | 1.25    |

Notes:

[264] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 36 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LUL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 85.77 <sup>[265]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.88                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.7     |
| upper limit | 1.11    |

Notes:

[265] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 37 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RML; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 8.67 <sup>[266]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.24                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.91                             |
| upper limit                             | 1.7                              |

Notes:

[266] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 38 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RML; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 14.8 <sup>[267]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.22                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.84                             |
| upper limit                             | 1.75                             |

Notes:

[267] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 39 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RML; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 45.69 <sup>[268]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.75    |
| upper limit         | 1.37    |

Notes:

[268] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 40 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 2.94 <sup>[269]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.42                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.99    |
| upper limit | 2.06    |

Notes:

[269] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 41 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 13.92 <sup>[270]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.22                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.85    |
| upper limit | 1.73    |

Notes:

[270] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 42 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; RLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 86.4 <sup>[271]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.86                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.65                             |
| upper limit                             | 1.13                             |

Notes:

[271] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 43 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LLL; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 0.88 <sup>[272]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.46                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 1.06                             |
| upper limit                             | 2                                |

Notes:

[272] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 44 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LLL; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 41.25 <sup>[273]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.04                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.75    |
| upper limit         | 1.43    |

Notes:

[273] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 45 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Lobes; LLL; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 99.2 <sup>[274]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.7                              |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.52    |
| upper limit | 0.94    |

Notes:

[274] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 46 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region;Upper; SCRD12 .The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 3.49 <sup>[275]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.22                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.98    |
| upper limit | 1.51    |

Notes:

[275] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 47 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Scan Trimmed; Region;Upper; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 73.09 <sup>[276]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.93                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.72                             |
| upper limit                             | 1.19                             |

**Notes:**

[276] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 48 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Scan Trimmed; Region;Upper; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 92.41 <sup>[277]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.85                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.69                             |
| upper limit                             | 1.06                             |

**Notes:**

[277] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 49 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC; Scan Trimmed; Region;Lower; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 2.29 <sup>[278]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.38                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 1.01    |
| upper limit         | 1.89    |

Notes:

[278] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 50 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region; Lower; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 23.67 <sup>[279]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.12                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.81    |
| upper limit | 1.56    |

Notes:

[279] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 51 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed; Region; Lower; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 98.87 <sup>[280]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.75                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.59    |
| upper limit | 0.96    |

Notes:

[280] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 52 |
|-----------------------------------|-------------------------|



Statistical analysis description:

TLC;Scan Trimmed;Region;Central; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 14.5 <sup>[281]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.07                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.95                             |
| upper limit                             | 1.2                              |

Notes:

[281] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 53 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed; Region Central; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 30.26 <sup>[282]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.04                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.91                             |
| upper limit                             | 1.18                             |

Notes:

[282] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 54 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region Central; D12D28 .The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 62.84 <sup>[283]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.98                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.89    |
| upper limit         | 1.09    |

Notes:

[283] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 55 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed; Region;Distal; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 2.06 <sup>[284]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.31                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 1.01    |
| upper limit | 1.7     |

Notes:

[284] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 56 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region; Distal; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 49.97 <sup>[285]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.76    |
| upper limit | 1.32    |

Notes:

[285] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 57 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region;Distal; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 99.43 <sup>[286]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.76                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.62                             |
| upper limit                             | 0.94                             |

Notes:

[286] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 58 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed; Region;Total; SCRD12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 1.17 <sup>[287]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.2                              |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 1.02                             |
| upper limit                             | 1.41                             |

Notes:

[287] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 59 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC;Scan Trimmed;Region;Total; SCRD28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 49.78 <sup>[288]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.84    |
| upper limit         | 1.18    |

Notes:

[288] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 60 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC; Scan Trimmed;Region;Total; D12D28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 98.66 <sup>[289]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.85                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.73    |
| upper limit | 0.98    |

Notes:

[289] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

### **Secondary: Change from Baseline in lung lobar volumes measured at FRC and TLC scan conditions, presented in longitudinal scan types, measured in 5 lobes and 5 regions at Day 12 and Day 28**

|                 |  |
|-----------------|--|
| End point title | Change from Baseline in lung lobar volumes measured at FRC and TLC scan conditions, presented in longitudinal scan types, measured in 5 lobes and 5 regions at Day 12 and Day 28 |
|-----------------|--|

End point description:

Change from Baseline in lung lobar volumes was measured at functional residual volume (FRC) and total lung capacity (TLC) scan conditions. Data was collected at longitudinal time points: Day 12 & Day 28. At each time point it was measure at 5 lobes (RUL, LUL, RML, RLL & LLL) and 5 Regions (Upper, Lower, Central, Distal & Total). For longitudinal time points the baseline is screening. Change from baseline is the post-Baseline value minus the Baseline value. Only participants available at the specified time point were analysed (represented by n=X1, X2 in the category title).

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Baseline, Day 12 and Day 28

| End point values                            | Placebo                   | GSK2269557<br>1000 mcg    |  |  |
|---|---------------------------|---------------------------|--|--|
| Subject group type                          | Reporting group           | Reporting group           |  |  |
| Number of subjects analysed                 | 62 <sup>[290]</sup>       | 63                        |  |  |
| Units: Liters                               |                           |                           |  |  |
| geometric mean (confidence interval<br>95%) |                           |                           |  |  |
| FRC Lobes; RUL; Day 12, n =56, 57           | 0.983 (0.953<br>to 1.014) | 0.995 (0.964<br>to 1.026) |  |  |
| FRC Lobes; RUL Day 28, n =56, 56            | 0.977 (0.949<br>to 1.005) | 1.017 (0.985<br>to 1.05)  |  |  |
| FRC Lobes; LUL Day 12, n =56, 59            | 0.974 (0.943<br>to 1.007) | 0.998 (0.964<br>to 1.034) |  |  |
| FRC Lobes;LUL Day 28, n =56, 58             | 0.98 (0.953 to<br>1.009)  | 1.017 (0.978<br>to 1.057) |  |  |
| FRC Lobes; RML Day 12, n =55, 58            | 0.981 (0.943<br>to 1.022) | 0.992 (0.959<br>to 1.025) |  |  |
| FRC Lobes; RML Day 28, n =56, 57            | 0.972 (0.943<br>to 1.002) | 0.996 (0.963<br>to 1.03)  |  |  |
| FRC Lobes; RLL Day 12, n =56, 59            | 0.977 (0.933<br>to 1.024) | 1.004 (0.964<br>to 1.045) |  |  |
| FRC Lobes; RLL Day 28, n =56, 58            | 0.972 (0.939<br>to 1.007) | 1.009 (0.968<br>to 1.051) |  |  |
| FRC Lobes; LLL Day 12, n =55, 59            | 0.968 (0.934<br>to 1.004) | 0.983 (0.944<br>to 1.024) |  |  |
| FRC Lobes; LLL Day 28, n =55, 58            | 0.979 (0.948<br>to 1.01)  | 0.991 (0.95 to<br>1.033)  |  |  |
| FRC Region; Upper Day 12, n =56, 59         | 0.98 (0.95 to<br>1.011)   | 0.996 (0.966<br>to 1.027) |  |  |
| FRC Region; Upper Day 28, n =56, 58         | 0.978 (0.954<br>to 1.004) | 1.013 (0.979<br>to 1.047) |  |  |
| FRC Region; Lower Day 12, n =56, 59         | 0.975 (0.936<br>to 1.016) | 0.994 (0.956<br>to 1.033) |  |  |
| FRC Region; Lower Day 28, n =56, 58         | 0.975 (0.945<br>to 1.007) | 1.001 (0.962<br>to 1.041) |  |  |
| FRC Region; Total Day 12, n =56, 59         | 0.975 (0.944<br>to 1.007) | 0.994 (0.964<br>to 1.026) |  |  |
| FRC Region; Total Day 28, n =56, 58         | 0.976 (0.95 to<br>1.003)  | 1.008 (0.974<br>to 1.042) |  |  |
| TLC Lobes; RUL; Day 12, n =58, 57           | 1.009 (0.994<br>to 1.024) | 0.999 (0.986<br>to 1.011) |  |  |
| TLC Lobes; RUL Day 28, n =56, 57            | 1.005 (0.985<br>to 1.025) | 0.999 (0.984<br>to 1.013) |  |  |
| TLC Lobes; LUL Day 12, n =58, 59            | 1.002 (0.989<br>to 1.014) | 0.998 (0.984<br>to 1.013) |  |  |
| TLC Lobes;LUL Day 28, n =56, 59             | 1.004 (0.984<br>to 1.025) | 0.998 (0.982<br>to 1.014) |  |  |
| TLC Lobes; RML Day 12, n =57, 58            | 0.998 (0.975<br>to 1.021) | 0.988 (0.97 to<br>1.005)  |  |  |
| TLC Lobes; RML Day 28, n =56, 58            | 0.992 (0.96 to<br>1.025)  | 0.996 (0.979<br>to 1.013) |  |  |
| TLC Lobes; RLL Day 12, n =58, 59            | 1.01 (0.983 to<br>1.038)  | 1.005 (0.977<br>to 1.034) |  |  |
| TLC Lobes; RLL Day 28, n =56, 59            | 1 (0.974 to<br>1.026)     | 1.009 (0.975<br>to 1.044) |  |  |
| TLC Lobes; LLL Day 12, n =57, 59            | 1.008 (0.975<br>to 1.042) | 0.989 (0.964<br>to 1.014) |  |  |
| TLC Lobes; LLL Day 28, n =55, 59            | 1.002 (0.977<br>to 1.028) | 0.996 (0.968<br>to 1.024) |  |  |
| TLC Upper Day 12, n =58, 59                 | 1.005 (0.993<br>to 1.017) | 0.997 (0.985<br>to 1.01)  |  |  |

|                             |                        |                        |  |  |
|-----------------------------|------------------------|------------------------|--|--|
| TLC UpperDay 28, n =56, 59  | 1.004 (0.984 to 1.023) | 0.999 (0.985 to 1.012) |  |  |
| TLC Lower Day 12, n =58, 59 | 1.009 (0.982 to 1.037) | 0.997 (0.972 to 1.023) |  |  |
| TLC Lower Day 28, n =56, 59 | 1 (0.978 to 1.024)     | 1.003 (0.973 to 1.034) |  |  |
| TLC Total Day 12, n =58, 59 | 1.005 (0.989 to 1.022) | 0.997 (0.98 to 1.015)  |  |  |
| TLC Total Day 28, n =56, 59 | 1.002 (0.982 to 1.022) | 1.001 (0.981 to 1.021) |  |  |

Notes:

[290] - ITT Population excluding the subject with a pacemaker.

## Statistical analyses

| Statistical analysis title  | Statistical analysis 1           |
|---|----------------------------------|
| Statistical analysis description:   |                                  |
| FRC Lobes; RUL; Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                                  |
| Comparison groups   | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis   | 125                              |
| Analysis specification  | Pre-specified                    |
| Analysis type   | other <sup>[291]</sup>           |
| P-value   | = 32.51 <sup>[292]</sup>         |
| Method  | Bayesian repeated measures model |
| Parameter estimate  | Posterior Median Ratio           |
| Point estimate  | 1.01                             |
| Confidence interval   |                                  |
| level   | 95 %                             |
| sides   | 2-sided                          |
| lower limit   | 0.97                             |
| upper limit   | 1.06                             |

Notes:

[291] - Comment for all statistical analysis, where method = Bayesian repeated measures model: Non-informative priors used for all modelling parameters. Unstructured covariance matrix fitted, accounting for correlation within region and visit.

[292] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

| Statistical analysis title   | Statistical analysis 2           |
|--|----------------------------------|
| Statistical analysis description:  |                                  |
| FRC Lobes; RUL Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                                  |
| Comparison groups  | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis  | 125                              |
| Analysis specification   | Pre-specified                    |
| Analysis type  | other                            |
| P-value  | = 6.21 <sup>[293]</sup>          |
| Method   | Bayesian repeated measures model |
| Parameter estimate   | Posterior Median Ratio           |
| Point estimate   | 1.04                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.99    |
| upper limit         | 1.08    |

Notes:

[293] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 3 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC Lobes; LUL Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 15.91 <sup>[294]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.98    |
| upper limit | 1.07    |

Notes:

[294] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 4 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC Lobes; LUL Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 6.73 <sup>[295]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.04                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.99    |
| upper limit | 1.09    |

Notes:

[295] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 5 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC Lobes; RML Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 27.65 <sup>[296]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.96                             |
| upper limit                             | 1.07                             |

Notes:

[296] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 6 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC Lobes; RML Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 12.19 <sup>[297]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.98                             |
| upper limit                             | 1.07                             |

Notes:

[297] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 7 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC Lobes; RLL Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 11.62 <sup>[298]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |



|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.98    |
| upper limit         | 1.1     |

Notes:

[298] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 8 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC Lobes; RLL Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 7.66 <sup>[299]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.04                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.99    |
| upper limit | 1.1     |

Notes:

[299] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 9 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC Lobes; LLL Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 28.88 <sup>[300]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.96    |
| upper limit | 1.07    |

Notes:

[300] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 10 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC Lobes; LLL Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 28.28 <sup>[301]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.96                             |
| upper limit                             | 1.07                             |

**Notes:**

[301] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 11 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC Region; Upper Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 27.87 <sup>[302]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.05                             |

**Notes:**

[302] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 12 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

FRC Region; Upper Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 9.83 <sup>[303]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.99    |
| upper limit         | 1.07    |

Notes:

[303] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 13 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC Region; Lower Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 21.87 <sup>[304]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.97    |
| upper limit | 1.07    |

Notes:

[304] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 14 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC Region; Lower Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 18.58 <sup>[305]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.97    |
| upper limit | 1.07    |

Notes:

[305] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 15 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC Region; Total Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 22.28 <sup>[306]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.98                             |
| upper limit                             | 1.06                             |

Notes:

[306] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 16 |
|-----------------------------------|-------------------------|

Statistical analysis description:

FRC Region; Total Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 10.86 <sup>[307]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.03                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.98                             |
| upper limit                             | 1.07                             |

Notes:

[307] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 17 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC Lobes; RUL; Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 84.89 <sup>[308]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.97    |
| upper limit         | 1.01    |

Notes:

[308] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 18 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC Lobes; RUL Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 63.78 <sup>[309]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.97    |
| upper limit | 1.02    |

Notes:

[309] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 19 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC Lobes; LUL Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 69.42 <sup>[310]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.98    |
| upper limit | 1.01    |

Notes:

[310] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 20 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC Lobes; LUL Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 62.63 <sup>[311]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.02                             |

Notes:

[311] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 21 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC Lobes; RML Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 72.55 <sup>[312]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.96                             |
| upper limit                             | 1.02                             |

Notes:

[312] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 22 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC Lobes; RML Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 36.28 <sup>[313]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.97    |
| upper limit         | 1.04    |

Notes:

[313] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 23 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC Lobes; RLL Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 47.44 <sup>[314]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.96    |
| upper limit | 1.04    |

Notes:

[314] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 24 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC Lobes; RLL Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 22.99 <sup>[315]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.02                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.97    |
| upper limit | 1.06    |

Notes:

[315] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 25 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC Lobes; LLL Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 85.95 <sup>[316]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.98                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.94                             |
| upper limit                             | 1.02                             |

**Notes:**

[316] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 26 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC Lobes; LLL Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 60.2 <sup>[317]</sup>          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.96                             |
| upper limit                             | 1.03                             |

**Notes:**

[317] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 27 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC Upper Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 81.34 <sup>[318]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |



|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.97    |
| upper limit         | 1.01    |

Notes:

[318] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 28 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC UpperDay 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 63.04 <sup>[319]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.97    |
| upper limit | 1.02    |

Notes:

[319] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 29 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC Lower Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 69.67 <sup>[320]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.96    |
| upper limit | 1.03    |

Notes:

[320] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 30 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC Lower Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 39.81 <sup>[321]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.04                             |

**Notes:**

[321] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 31 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC Total Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 73.01 <sup>[322]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.02                             |

**Notes:**

[322] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 32 |
|-----------------------------------|-------------------------|

**Statistical analysis description:**

TLC Total Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 48.97 <sup>[323]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.97    |
| upper limit         | 1.03    |

Notes:

[323] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than 1. P-value is denoted in percentage.

## Secondary: Change from Baseline in imaging trachea length/diameter after 12 days of treatment and after 28 days of treatment

|                 |   |
|-----------------|---|
| End point title | Change from Baseline in imaging trachea length/diameter after 12 days of treatment and after 28 days of treatment |
|-----------------|---|

End point description:

Imaging trachea/diameter was derived from HRCT to evaluate the effect of once daily inhaled dose of GSK2269557 on lung parameters. TLC is the volume in the lungs at maximal inflation and FRC is the volume in the lungs at the end-expiratory position. The Baseline for the assessment on Day 12 and Day 28 is Day 12 value. Change from Baseline is Day 28 value minus Day 12 value. The change from Baseline data is presented for Day 12 and Day 28 for length, diameter and length/diameter. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles).

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Baseline, Day 12 and Day 28

| End point values                     | Placebo             | GSK2269557<br>1000 mcg |  |  |
|--------------------------------------|---------------------|------------------------|--|--|
| Subject group type                   | Reporting group     | Reporting group        |  |  |
| Number of subjects analysed          | 62 <sup>[324]</sup> | 63                     |  |  |
| Units: Millimeter (mm)               |                     |                        |  |  |
| arithmetic mean (standard deviation) |                     |                        |  |  |
| FRC Length Day 12, n=56, 59          | -1.886 (± 7.6043)   | 0.517 (± 6.0882)       |  |  |
| FRC Length Day 28, n=56, 58          | -1.434 (± 6.7887)   | 0.485 (± 6.6552)       |  |  |
| FRC Diameter Day 12, n=56, 59        | -0.247 (± 1.8777)   | 0.059 (± 1.1657)       |  |  |
| FRC Diameter Day 28, n=56, 58        | -0.261 (± 1.8672)   | -0.047 (± 1.1522)      |  |  |
| FRC Length/Diameter Day 12, n=56, 59 | -0.03 (± 0.7717)    | 0 (± 0.562)            |  |  |
| FRC Length/Diameter Day 28, n=56, 58 | -0.017 (± 0.7469)   | 0.059 (± 0.5169)       |  |  |
| TLC Length Day 12, n=58, 59          | 0.295 (± 4.0608)    | -0.663 (± 3.8027)      |  |  |
| TLC Length Day 28, n=56, 59          | 0.168 (± 4.5501)    | -0.495 (± 3.7295)      |  |  |
| TLC Diameter Day 12, n=58, 59        | -0.067 (± 1.0127)   | -0.056 (± 0.5098)      |  |  |
| TLC Diameter Day 28, n=56, 59        | -0.046 (± 1.024)    | -0.082 (± 0.5579)      |  |  |
| TLC Length/Diameter Day 12, n=58, 59 | 0.024 (± 0.3602)    | -0.023 (± 0.2913)      |  |  |
| TLC Length/Diameter Day 28, n=56, 59 | 0.004 (± 0.3715)    | -0.006 (± 0.2783)      |  |  |

Notes:

[324] - ITT Population excluding the subject with a pacemaker.

## Statistical analyses

| Statistical analysis title  | Statistical analysis 1           |
|---|----------------------------------|
| Statistical analysis description:<br>FRC Length Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                                  |
| Comparison groups   | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis   | 125                              |
| Analysis specification  | Pre-specified                    |
| Analysis type   | other <sup>[325]</sup>           |
| P-value   | = 2.89 <sup>[326]</sup>          |
| Method  | Bayesian repeated measures model |
| Parameter estimate  | Posterior Median Ratio           |
| Point estimate  | 1.04                             |
| Confidence interval   |                                  |
| level   | 95 %                             |
| sides   | 2-sided                          |
| lower limit   | 1                                |
| upper limit   | 1.07                             |

Notes:

[325] - Comment for all statistical analysis, where method = Bayesian repeated measures model: Non-informative priors used for all modelling parameters. Unstructured covariance matrix fitted, accounting for correlation within region and visit.

[326] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than/greater than 1. P-value is denoted in percentage.

| Statistical analysis title  | Statistical analysis 2           |
|---|----------------------------------|
| Statistical analysis description:<br>FRC Length Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                                  |
| Comparison groups   | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis   | 125                              |
| Analysis specification  | Pre-specified                    |
| Analysis type   | other                            |
| P-value   | = 8.49 <sup>[327]</sup>          |
| Method  | Bayesian repeated measures model |
| Parameter estimate  | Posterior Median Ratio           |
| Point estimate  | 1.02                             |
| Confidence interval   |                                  |
| level   | 95 %                             |
| sides   | 2-sided                          |
| lower limit   | 0.99                             |
| upper limit   | 1.05                             |

Notes:

[327] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than/greater than 1. P-value is denoted in percentage.

|  |                        |
|--|------------------------|
|  | Statistical analysis 3 |
|--|------------------------|

| Statistical analysis title   |                                  |
|--|----------------------------------|
| Statistical analysis description:  |                                  |
| FRC Diameter Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                                  |
| Comparison groups  | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis  | 125                              |
| Analysis specification   | Pre-specified                    |
| Analysis type  | other                            |
| P-value  | = 86.21 <sup>[328]</sup>         |
| Method   | Bayesian repeated measures model |
| Parameter estimate   | Posterior Median Ratio           |
| Point estimate   | 1.02                             |
| Confidence interval  |                                  |
| level  | 95 %                             |
| sides  | 2-sided                          |
| lower limit  | 0.98                             |
| upper limit  | 1.07                             |

Notes:

[328] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than/greater than 1. P-value is denoted in percentage.

| Statistical analysis title   |                                  |
|--|----------------------------------|
| Statistical analysis 4   |                                  |
| Statistical analysis description:  |                                  |
| FRC Diameter Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                                  |
| Comparison groups  | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis  | 125                              |
| Analysis specification   | Pre-specified                    |
| Analysis type  | other                            |
| P-value  | = 75.2 <sup>[329]</sup>          |
| Method   | Bayesian repeated measures model |
| Parameter estimate   | Posterior Median Ratio           |
| Point estimate   | 1.01                             |
| Confidence interval  |                                  |
| level  | 95 %                             |
| sides  | 2-sided                          |
| lower limit  | 0.98                             |
| upper limit  | 1.05                             |

Notes:

[329] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than/greater than 1. P-value is denoted in percentage.

| Statistical analysis title  |                               |
|---|-------------------------------|
| Statistical analysis 5  |                               |
| Statistical analysis description:   |                               |
| FRC Length/Diameter Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval. |                               |
| Comparison groups   | Placebo v GSK2269557 1000 mcg |

|   |                                  |
|---|----------------------------------|
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 28.51 <sup>[330]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.06                             |

Notes:

[330] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than/greater than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 6 |
|-----------------------------------|------------------------|

Statistical analysis description:

FRC Length/Diameter Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 32.15 <sup>[331]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1.01                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.05                             |

Notes:

[331] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than/greater than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 7 |
|-----------------------------------|------------------------|

Statistical analysis description:

TLC Length Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 84.29 <sup>[332]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.97    |
| upper limit         | 1.01    |

Notes:

[332] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than/greater than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 8 |
|-----------------------------------|------------------------|

Statistical analysis description:

TLC Length Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 71.08 <sup>[333]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.98    |
| upper limit | 1.01    |

Notes:

[333] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than/greater than 1. P-value is denoted in percentage.

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 9 |
|-----------------------------------|------------------------|

Statistical analysis description:

TLC Diameter Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 34.93 <sup>[334]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |

Confidence interval

|             |         |
|-------------|---------|
| level       | 95 %    |
| sides       | 2-sided |
| lower limit | 0.98    |
| upper limit | 1.01    |

Notes:

[334] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than/greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 10 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC Diameter Day 28. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 25.05 <sup>[335]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.98                             |
| upper limit                             | 1.01                             |

Notes:

[335] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than/greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 11 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC Length/Diameter Day 12. The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 66.51 <sup>[336]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 0.99                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.97                             |
| upper limit                             | 1.02                             |

Notes:

[336] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than/greater than 1. P-value is denoted in percentage.

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 12 |
|-----------------------------------|-------------------------|

Statistical analysis description:

TLC Length/Diameter Day 28 The data entered to the 95% confidence interval represents the 95% equi-tailed credible interval.

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 125                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 45.28 <sup>[337]</sup>         |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Posterior Median Ratio           |
| Point estimate                          | 1                                |



|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 0.98    |
| upper limit         | 1.03    |

Notes:

[337] - The data entered for the p-value represents the posterior probability that the true treatment ratio is less than/greater than 1. P-value is denoted in percentage.

### Secondary: Number of participants with adverse events (AE)

|                 |   |
|-----------------|---|
| End point title | Number of participants with adverse events (AE) |
|-----------------|---|

End point description:

An AE is defined as any untoward medical occurrence in a participant, temporally associated with the use of a medicinal product, whether or not considered related to the medicinal product. Adverse events were collected from the start of study treatment until the follow-up contact. All Subjects Population: all randomized participants who received at least one dose of study treatment.

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

From start of IP through the Study Phase (84 days post-dose) (assessed up to follow-up duration of approximately 100 days)

|                             |                     |                        |  |  |
|-----------------------------|---------------------|------------------------|--|--|
| <b>End point values</b>     | Placebo             | GSK2269557<br>1000 mcg |  |  |
| Subject group type          | Reporting group     | Reporting group        |  |  |
| Number of subjects analysed | 63 <sup>[338]</sup> | 63                     |  |  |
| Units: Participants         | 41                  | 49                     |  |  |

Notes:

[338] - All Subjects Population

### Statistical analyses

No statistical analyses for this end point

### Secondary: Number of participants with abnormal hematology parameters

|                 |  |
|-----------------|--|
| End point title | Number of participants with abnormal hematology parameters |
|-----------------|--|

End point description:

Hematology parameter included Hematocrit (HCT), Hemoglobin (HB), Lymphocytes (LC), Platelet Count (PC), Total Neutrophils (TN), and White Blood Cell (WBC) count at the indicated timepoints: Day 1, Day 12, Day 28, Day 56, Day 84, and at follow-up/Early withdrawal. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles).

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Day 1, Day 12, Day 28, Day 56, Day 84 and at follow-up (approximately 100 Days)

| End point values                               | Placebo             | GSK2269557<br>1000 mcg |  |  |
|--|---------------------|------------------------|--|--|
| Subject group type                             | Reporting group     | Reporting group        |  |  |
| Number of subjects analysed                    | 63 <sup>[339]</sup> | 63                     |  |  |
| Units: Participants                            |                     |                        |  |  |
| High HCT Screening/Day 1, n=63, 62             | 4                   | 1                      |  |  |
| High HCT Day 12, n=60, 58                      | 1                   | 1                      |  |  |
| High HCT Day 28, n=57, 58                      | 1                   | 1                      |  |  |
| High HCT Day 56, n=55, 52                      | 1                   | 0                      |  |  |
| High HCT Day 84, n=49, 53                      | 2                   | 1                      |  |  |
| High HCT Follow-up/Early Withdraw,<br>n=54, 53 | 4                   | 0                      |  |  |
| High HB Screening/ Day 1, n=63, 63             | 0                   | 1                      |  |  |
| High HB Day 12, n=60, 58                       | 0                   | 0                      |  |  |
| High HB Day 28, n=57, 58                       | 0                   | 0                      |  |  |
| High HB Day 56, n=55, 52                       | 0                   | 0                      |  |  |
| High HB Day 84, n=49, 53                       | 0                   | 0                      |  |  |
| High HB Follow-up/Early Withdraw,<br>n=54, 53  | 0                   | 0                      |  |  |
| Low LC Screening/ Day 1, n=62, 60              | 9                   | 7                      |  |  |
| Low LC Day 12, n=59, 58                        | 2                   | 2                      |  |  |
| Low LC Day 28, n=56, 57                        | 3                   | 3                      |  |  |
| Low LC Day 56, n=54, 52                        | 2                   | 0                      |  |  |
| Low LC Day 84, n=48, 50                        | 2                   | 0                      |  |  |
| Low LC Follow-up/Early Withdraw,<br>n=53, 53   | 1                   | 1                      |  |  |
| High PC Screening/Day 1, n=63, 63              | 0                   | 0                      |  |  |
| High PC Day 12, n=58, 57                       | 0                   | 0                      |  |  |
| High PC Day 28, n=57, 58                       | 1                   | 0                      |  |  |
| High PC Day 56, n=55, 52                       | 0                   | 0                      |  |  |
| High PC Day 84, n=49, 53                       | 0                   | 0                      |  |  |
| High PC Follow-up/Early Withdraw,<br>n=54, 53  | 0                   | 0                      |  |  |
| Low PC Screening/ Day 1, n=63, 63              | 0                   | 0                      |  |  |
| Low PC Day 12, n=58, 57                        | 0                   | 0                      |  |  |
| Low PC Day 28, n=57, 58                        | 0                   | 0                      |  |  |
| Low PC Day 56, n=55, 52                        | 0                   | 0                      |  |  |
| Low PC Day 84, n=49, 53                        | 0                   | 0                      |  |  |
| Low PC Follow-up/Early Withdraw,<br>n=54, 53   | 0                   | 0                      |  |  |
| Low TN Screening/ Day 1, n=62, 60              | 0                   | 0                      |  |  |
| Low TN Day 12, n=59, 58                        | 0                   | 1                      |  |  |
| Low TN Day 28, n=56, 57                        | 0                   | 0                      |  |  |
| Low TN Day 56, n=54, 52                        | 0                   | 0                      |  |  |
| Low TN Day 84, n=48, 50                        | 0                   | 0                      |  |  |
| Low TN Follow-up/Early Withdraw,<br>n=53, 53   | 0                   | 0                      |  |  |
| High WBC Screening/ Day 1, n=63, 63            | 0                   | 1                      |  |  |
| High WBC Day 12, n=56, 56                      | 0                   | 1                      |  |  |
| High WBC Day 28, n=56, 57                      | 0                   | 0                      |  |  |
| High WBC Day 56, n=54, 52                      | 0                   | 0                      |  |  |
| High WBC Day 84, n=48, 50                      | 0                   | 0                      |  |  |
| High WBC Follow-up/Early Withdraw,<br>n=53, 53 | 0                   | 2                      |  |  |

|  |   |   |  |  |
|--|---|---|--|--|
| Low WBC Screening/ Day 1, n=63, 63         | 0 | 0 |  |  |
| Low WBC Day 12, n=56, 56                   | 0 | 0 |  |  |
| Low WBC Day 28, n=56, 57                   | 0 | 0 |  |  |
| Low WBC Day 56, n=54, 52                   | 0 | 0 |  |  |
| Low WBC Day 84, n=48, 50                   | 0 | 0 |  |  |
| Low WBC Follow-up/Early Withdraw, n=53, 53 | 0 | 0 |  |  |

Notes:

[339] - All Subjects Population

## Statistical analyses

No statistical analyses for this end point

## Secondary: Number of participants with abnormal clinical chemistry parameters

|                 |  |
|-----------------|--|
| End point title | Number of participants with abnormal clinical chemistry parameters |
|-----------------|--|

End point description:

Clinical Chemistry parameters included Alanine Amino Transferase (ALT), Albumin, Alkaline Phosphatase (ALP), Aspartate Amino Transferase (AST), Calcium (Ca), Glucose, Potassium (K), Sodium (Na), and Total Bilirubin (TBL) at the indicated timepoints: Day 1, Day 12, Day 28, Day 56, Day 84, and at follow-up/Early withdrawal. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles).

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Day 1, Day 12, Day 28, Day 56, Day 84 and at follow-up (approximately 100 days)

| End point values                               | Placebo             | GSK2269557<br>1000 mcg |  |  |
|--|---------------------|------------------------|--|--|
| Subject group type                             | Reporting group     | Reporting group        |  |  |
| Number of subjects analysed                    | 63 <sup>[340]</sup> | 63                     |  |  |
| Units: Participants                            |                     |                        |  |  |
| High ALT Screening/ Day 1, n=63, 63            | 0                   | 1                      |  |  |
| High ALT Day 12, n=61, 60                      | 0                   | 0                      |  |  |
| High ALT Day 28, n=58, 60                      | 1                   | 0                      |  |  |
| High ALT Day 56, n=55, 56                      | 0                   | 0                      |  |  |
| High ALT Day 84, n=52, 55                      | 0                   | 0                      |  |  |
| High ALT Follow-up/Early Withdraw, n=53, 54    | 0                   | 0                      |  |  |
| Low Albumin Screening/ Day 1, n=63, 63         | 0                   | 0                      |  |  |
| Low Albumin Day 12, n=61, 60                   | 0                   | 0                      |  |  |
| Low Albumin Day 28, n=58, 60                   | 0                   | 0                      |  |  |
| Low Albumin Day 56, n=55, 56                   | 0                   | 0                      |  |  |
| Low Albumin Day 84, n=52, 55                   | 0                   | 0                      |  |  |
| Low Albumin Follow-up/Early Withdraw, n=53, 53 | 1                   | 1                      |  |  |
| High ALP Screening/ Day 1, n=63, 63            | 0                   | 0                      |  |  |
| High ALP Day 12, n=61, 60                      | 1                   | 0                      |  |  |
| High ALP Day 28, n=58, 60                      | 1                   | 0                      |  |  |
| High ALP Day 56, n=55, 56                      | 0                   | 0                      |  |  |

|   |   |   |  |  |
|---|---|---|--|--|
| High ALP Day 84, n=52, 55                         | 0 | 0 |  |  |
| High ALP Follow-up/Early Withdraw, n=53, 54       | 1 | 0 |  |  |
| High AST Screening/ Day 1, n=63, 63               | 0 | 1 |  |  |
| High AST Day 12, n=61, 60                         | 0 | 0 |  |  |
| High AST Day 28, n=58, 60                         | 0 | 0 |  |  |
| High AST Day 56, n=55, 56                         | 0 | 0 |  |  |
| High AST Day 84, n=52, 55                         | 0 | 0 |  |  |
| High AST Follow-up/Early Withdraw, n=53, 54       | 1 | 1 |  |  |
| High Ca Screening/ Day 1, n=63, 63                | 0 | 0 |  |  |
| High Ca Day 12, n=61, 60                          | 0 | 0 |  |  |
| High Ca Day 28, n=58, 60                          | 0 | 0 |  |  |
| High Ca Day 56, n=55, 56                          | 0 | 0 |  |  |
| High Ca Day 84, n=52, 55                          | 0 | 0 |  |  |
| High Ca Follow-up/Early Withdraw, n=53, 53        | 0 | 0 |  |  |
| Low Ca Screening/ Day 1, n=63, 63                 | 0 | 0 |  |  |
| Low Ca Day 12, n=61, 60                           | 0 | 0 |  |  |
| Low Ca Day 28, n=58, 60                           | 0 | 0 |  |  |
| Low Ca Day 56, n=55, 56                           | 0 | 0 |  |  |
| Low Ca Day 84, n=52, 55                           | 0 | 0 |  |  |
| Low Ca Follow-up/Early Withdraw, n=53, 53         | 0 | 1 |  |  |
| High Glucose Screening/ Day 1, n=63, 63           | 6 | 8 |  |  |
| High Glucose Day 12, n=61, 60                     | 2 | 6 |  |  |
| High Glucose Day 28, n=58, 60                     | 1 | 3 |  |  |
| High Glucose Day 56, n=55, 56                     | 3 | 5 |  |  |
| High Glucose Day 84, n=52, 55                     | 5 | 3 |  |  |
| High Glucose Follow-up/Early Withdraw, n=53, 53   | 4 | 6 |  |  |
| Low Glucose Screening/ Day 1, n=63, 63            | 0 | 0 |  |  |
| Low Glucose Day 12, n=61, 60                      | 0 | 0 |  |  |
| Low Glucose Day 28, n=58, 60                      | 0 | 0 |  |  |
| Low Glucose Day 56, n=55, 56                      | 0 | 0 |  |  |
| Low Glucose Day 84, n=52, 55                      | 0 | 0 |  |  |
| Low Glucose Follow-up/Early Withdraw, n=53, 53    | 0 | 0 |  |  |
| High Potassium Screening/ Day 1, n=63, 63         | 1 | 1 |  |  |
| High Potassium Day 12, n=61, 60                   | 2 | 0 |  |  |
| High Potassium Day 28, n=58, 60                   | 2 | 0 |  |  |
| High Potassium Day 56, n=55, 56                   | 0 | 0 |  |  |
| High Potassium Day 84, n=52, 550                  | 0 | 0 |  |  |
| High Potassium Follow-up/Early Withdraw, n=53, 53 | 0 | 0 |  |  |
| Low Potassium Screening/ Day 1, n=63, 63          | 0 | 0 |  |  |
| Low Potassium Day 12, n=61, 60                    | 0 | 0 |  |  |
| Low Potassium V4 Day 28, n=58, 60                 | 0 | 0 |  |  |
| Low Potassium Day 56, n=55, 56                    | 0 | 0 |  |  |
| Low Potassium Day 84, n=52, 55                    | 0 | 0 |  |  |
| Low Potassium Follow-up/Early Withdraw, n=53, 53  | 0 | 0 |  |  |

|  |   |   |  |  |
|--|---|---|--|--|
| High Sodium Screening/ Day 1, n=63, 63         | 0 | 0 |  |  |
| High Sodium Day 12, n=61, 60                   | 0 | 0 |  |  |
| High Sodium Day 28, n=58, 60                   | 0 | 0 |  |  |
| High Sodium Day 56, n=55, 56                   | 0 | 0 |  |  |
| High Sodium Day 84, n=52, 55                   | 0 | 0 |  |  |
| High Sodium Follow-up/Early Withdraw, n=53, 53 | 0 | 0 |  |  |
| Low Sodium Screening/ Day 1, n=63, 63          | 1 | 0 |  |  |
| Low Sodium Day 12, n=61, 60                    | 1 | 0 |  |  |
| Low Sodium Day 28, n=58, 60                    | 0 | 0 |  |  |
| Low Sodium Day 56, n=55, 56                    | 0 | 0 |  |  |
| Low Sodium Day 84, n=52, 55                    | 1 | 0 |  |  |
| Low Sodium Follow-up/Early Withdraw, n=53, 53  | 0 | 0 |  |  |
| High TBL Screening/ Day 1, n=63, 63            | 1 | 0 |  |  |
| High TBL Day 12, n=61, 60                      | 0 | 0 |  |  |
| High TBL Day 28, n=58, 60                      | 0 | 0 |  |  |
| High TBL Day 56, n=55, 56                      | 0 | 0 |  |  |
| High TBL Day 84, n=51, 55                      | 0 | 0 |  |  |
| High TBL Follow-up/Early Withdraw, n=53, 54    | 1 | 1 |  |  |

Notes:

[340] - All Subjects Population

## Statistical analyses

No statistical analyses for this end point

## Secondary: Number of participants with abnormal vital signs

|                 |  |
|-----------------|--|
| End point title | Number of participants with abnormal vital signs |
|-----------------|--|

End point description:

Vital signs included high and low diastolic and systolic blood pressure (BP), and high and low heart rate (HR). Vital signs outside the range of potential clinical importance are presented at the indicated timepoints: Day 1, Day 12, Day 28, Day 56, Day 84, follow-up/Early withdrawal and at any visit post-baseline. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles).

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Day 1, Day 12, Day 28, Day 56, Day 84 and at follow-up (approximately 100 days)

| End point values                   | Placebo             | GSK2269557<br>1000 mcg |  |  |
|------------------------------------|---------------------|------------------------|--|--|
| Subject group type                 | Reporting group     | Reporting group        |  |  |
| Number of subjects analysed        | 63 <sup>[341]</sup> | 63                     |  |  |
| Units: Participants                |                     |                        |  |  |
| High DBP Screening/Day 1, n=63, 63 | 1                   | 0                      |  |  |
| High DBP Day 12, n=61, 60          | 0                   | 0                      |  |  |
| High DBP Day 28, n=58, 60          | 0                   | 0                      |  |  |
| High DBP Day 56, n=55, 56          | 1                   | 0                      |  |  |

|   |   |   |  |  |
|---|---|---|--|--|
| High DBP Day 84, n=52, 55                   | 0 | 0 |  |  |
| High DBP Follow-up/Early Withdraw, n=55, 60 | 0 | 0 |  |  |
| High DBP Any Visit Post Baseline, n=62, 62  | 1 | 0 |  |  |
| Low DBP Screening/ Day 1, n=63, 63          | 0 | 0 |  |  |
| Low DBP Day 12, n=61, 60                    | 1 | 0 |  |  |
| Low DBP Day 28, n=58, 60                    | 0 | 0 |  |  |
| Low DBP Day 56, n=55, 56                    | 0 | 0 |  |  |
| Low DBP V6 Day 84, n=52, 55                 | 0 | 0 |  |  |
| Low DBP Follow-up/Early Withdraw, n=55, 60  | 0 | 0 |  |  |
| Low DBP Any Visit Post Baseline, n=62, 62   | 1 | 0 |  |  |
| High SBP Screening/ Day 1, n=63, 63         | 2 | 3 |  |  |
| High SBP Day 12, n=61, 60                   | 0 | 1 |  |  |
| High SBP Day 28, n=58, 60                   | 0 | 0 |  |  |
| High SBP Day 56, n=55, 56                   | 2 | 1 |  |  |
| High SBP Day 84, n=52, 55                   | 1 | 1 |  |  |
| High SBP Follow-up/Early Withdraw, n=55, 60 | 1 | 1 |  |  |
| High SBP Any Visit Post Baseline, n=62, 62  | 3 | 2 |  |  |
| Low SBP Screening/ V1 Day 1, n=63, 63       | 0 | 0 |  |  |
| Low SBP Day 12, n=61, 60                    | 0 | 0 |  |  |
| Low SBP Day 28, n=58, 60                    | 0 | 0 |  |  |
| Low SBP Day 56, n=55, 56                    | 0 | 0 |  |  |
| Low SBP Day 84, n=52, 55                    | 0 | 0 |  |  |
| Low SBP Follow-up/Early Withdraw, n=55, 60  | 0 | 0 |  |  |
| Low SBP Any Visit Post Baseline, n=62, 62   | 0 | 0 |  |  |
| High HR Screening/ Day 1, n=63, 63          | 0 | 2 |  |  |
| High HR Day 12, n=61, 60                    | 0 | 0 |  |  |
| High HR Day 28, n=58, 60                    | 2 | 2 |  |  |
| High HR Day 56, n=55, 56                    | 0 | 1 |  |  |
| High HR Day 84, n=52, 55                    | 0 | 1 |  |  |
| High HR Follow-up/Early Withdraw, n=55, 60  | 1 | 1 |  |  |
| High HR Any Visit Post Baseline, n=62, 62   | 2 | 3 |  |  |
| Low HR Screening/ Day 1, n=63, 63           | 0 | 0 |  |  |
| Low HR Day 12, n=61, 60                     | 0 | 0 |  |  |
| Low HR Day 28, n=58, 60                     | 0 | 0 |  |  |
| Low HR Day 56, n=55, 56                     | 0 | 0 |  |  |
| Low HR Day 84, n=52, 55                     | 0 | 0 |  |  |
| Low HR Follow-up/Early Withdraw, n=55, 60   | 0 | 0 |  |  |
| Low HR Any Visit Post Baseline, n=62, 62    | 0 | 0 |  |  |

Notes:

[341] - All Subjects Population

## Statistical analyses

No statistical analyses for this end point

### Secondary: Number of participants with abnormal 12-lead electrocardiogram (ECG)

|  |  |
|--|--|
| End point title  | Number of participants with abnormal 12-lead electrocardiogram (ECG) |
| End point description:<br>12-lead ECG was obtained using an ECG machine that automatically calculates the heart rate and measures PR, QRS, QT, and QT interval corrected using the Fridericia's formula (QTcF). Clinically non-significant (CN) and Clinically significant (CS) abnormal ECG measurements are presented for Day 1, Day 12, Day 28, Day 56, Day 84, follow-up/Early withdrawal and at any visit post-baseline. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles). |  |
| End point type   | Secondary  |
| End point timeframe:<br>Day 1, Day 12, Day 28, Day 56, Day 84 and at follow-up (approximately 100 days)  |  |

| End point values                             | Placebo             | GSK2269557<br>1000 mcg |  |  |
|--|---------------------|------------------------|--|--|
| Subject group type                           | Reporting group     | Reporting group        |  |  |
| Number of subjects analysed                  | 63 <sup>[342]</sup> | 63                     |  |  |
| Units: Participants                          |                     |                        |  |  |
| CN ECG Screening/ Day 1, n=63, 63            | 45                  | 40                     |  |  |
| CS ECG Screening/ Day 1, n=63, 63            | 0                   | 0                      |  |  |
| CN ECG Day 12, n=61, 60                      | 43                  | 40                     |  |  |
| CS ECG Day 12, n=61, 60                      | 0                   | 0                      |  |  |
| CN ECG Day 28, n=58, 60                      | 41                  | 40                     |  |  |
| CS ECG Day 28, n=58, 60                      | 1                   | 1                      |  |  |
| CN ECG Day 56, n=55, 56                      | 36                  | 39                     |  |  |
| CS ECG Day 56, n=55, 56                      | 1                   | 0                      |  |  |
| CN ECG Day 84, n=52, 55                      | 36                  | 38                     |  |  |
| CS ECG Day 84, n=52, 55                      | 1                   | 0                      |  |  |
| CN ECG Follow-up/Early Withdraw,<br>n=56, 60 | 35                  | 43                     |  |  |
| CS ECG Follow-up/Early Withdraw,<br>n=56, 60 | 1                   | 0                      |  |  |
| CN ECG Any Visit Post Baseline, n=63,<br>62  | 51                  | 51                     |  |  |
| CS ECG Any Visit Post Baseline, n=63,<br>62  | 3                   | 1                      |  |  |

Notes:

[342] - All Subjects Population

### Statistical analyses

No statistical analyses for this end point

### Secondary: Day 1 plasma concentration up to 24 hours (hrs) post-dose

|  |  |
|--|--|
| End point title  | Day 1 plasma concentration up to 24 hours (hrs) post-dose <sup>[343]</sup> |
| End point description:<br>Plasma samples were collected at pre-dose, 5 minutes (min), 3 hrs, and 24 hrs post-dose on Day 1. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles). Pharmacokinetic (PK) Population: all participants in the Safety Population for whom |  |

a PK sample was obtained and analyzed. Safety Population comprises of all participants who were randomized.

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Pre-dose, 5 min, 3 hrs and 24 hrs

Notes:

[343] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: This endpoint is only reporting on a subset of the arms that are contained in the baseline period.

|                                      |                        |  |  |  |
|--------------------------------------|------------------------|--|--|--|
| <b>End point values</b>              | GSK2269557<br>1000 mcg |  |  |  |
| Subject group type                   | Reporting group        |  |  |  |
| Number of subjects analysed          | 62 <sup>[344]</sup>    |  |  |  |
| Units: pg/mL                         |                        |  |  |  |
| arithmetic mean (standard deviation) |                        |  |  |  |
| Pre-dose, n=61                       | 33 (± 99999)           |  |  |  |
| 5 min, n=60                          | 476.6 (± 520.85)       |  |  |  |
| 3 hrs, n=61                          | 553.7 (± 326.98)       |  |  |  |
| 24 hrs, n=20                         | 539 (± 482.76)         |  |  |  |

Notes:

[344] - Pharmacokinetic (PK) Population. 99999 indicates no data is available.

## Statistical analyses

No statistical analyses for this end point

## Secondary: Trough concentration after 12 days, 28 days, 56 days and 84 days of treatment

|                 |  |
|-----------------|--|
| End point title | Trough concentration after 12 days, 28 days, 56 days and 84 days of treatment <sup>[345]</sup> |
|-----------------|--|

End point description:

Trough concentrations are presented for Pre-dose Day 12, Pre-dose Day 28, Pre-dose Day 56, and Pre-dose Day 84. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles).

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Pre-dose Day 12, Day 28, Day 56, and Day 84

Notes:

[345] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: This endpoint is only reporting on a subset of the arms that are contained in the baseline period.

|                                      |                        |  |  |  |
|--------------------------------------|------------------------|--|--|--|
| <b>End point values</b>              | GSK2269557<br>1000 mcg |  |  |  |
| Subject group type                   | Reporting group        |  |  |  |
| Number of subjects analysed          | 62 <sup>[346]</sup>    |  |  |  |
| Units: pg/mL                         |                        |  |  |  |
| arithmetic mean (standard deviation) |                        |  |  |  |



|                       |                    |  |  |  |
|-----------------------|--------------------|--|--|--|
| Pre-dose Day 12, n=57 | 1001.8 (± 669.05)  |  |  |  |
| Pre-dose Day 28, n=60 | 1028.8 (± 798.38)  |  |  |  |
| Pre-dose Day 56, n=55 | 1119.8 (± 1389.53) |  |  |  |
| Pre-dose Day 84, n=54 | 948.6 (± 1078.31)  |  |  |  |

Notes:

[346] - PK Population

## Statistical analyses

No statistical analyses for this end point

## Secondary: Changes from Baseline in forced expiratory volume in one second (FEV1) measured daily

|                 |   |
|-----------------|---|
| End point title | Changes from Baseline in forced expiratory volume in one second (FEV1) measured daily |
|-----------------|---|

End point description:

FEV1 is the volume of air that can forcibly be blown out in one second. A triplicate FEV1 measurement were taken daily in the morning before dose administration. Baseline is defined as the assessment on Day 1 and change from Baseline is the post-Baseline value minus Baseline value. Change from Baseline data is presented for Day 28 and Day 84. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles).

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Baseline, Day 28, and Day 84

| End point values                     | Placebo             | GSK2269557 1000 mcg |  |  |
|--------------------------------------|---------------------|---------------------|--|--|
| Subject group type                   | Reporting group     | Reporting group     |  |  |
| Number of subjects analysed          | 63 <sup>[347]</sup> | 63                  |  |  |
| Units: mL                            |                     |                     |  |  |
| arithmetic mean (standard deviation) |                     |                     |  |  |
| Day 28, n=55, 58                     | -70.4 (± 43.07)     | -72.2 (± 41.28)     |  |  |
| Day 84, n=46, 54                     | -83.3 (± 49.73)     | -22.7 (± 46.77)     |  |  |

Notes:

[347] - ITT Population

## Statistical analyses

|                            |                        |
|----------------------------|------------------------|
| Statistical analysis title | Statistical analysis 1 |
|----------------------------|------------------------|

Statistical analysis description:

Day 28

|                   |                               |
|-------------------|-------------------------------|
| Comparison groups | Placebo v GSK2269557 1000 mcg |
|-------------------|-------------------------------|

|   |                                  |
|---|----------------------------------|
| Number of subjects included in analysis | 126                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 0.487                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Median difference (final values) |
| Point estimate                          | -2                               |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | -118.5                           |
| upper limit                             | 115.3                            |

|   |                                  |
|---|----------------------------------|
| <b>Statistical analysis title</b>       | Statistical analysis 2           |
| Statistical analysis description:       |                                  |
| Day 84                                  |                                  |
| Comparison groups                       | Placebo v GSK2269557 1000 mcg    |
| Number of subjects included in analysis | 126                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 0.816                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Median difference (final values) |
| Point estimate                          | 60.6                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | -73.3                            |
| upper limit                             | 194.3                            |

|   |  |
|---|--|
| <b>Secondary: Changes from Baseline in peak expiratory flow (PEF) measured daily</b>  |  |
| End point title   | Changes from Baseline in peak expiratory flow (PEF) measured daily |
| End point description:  |  |
| PEF is the maximal flow (or speed) achieved during the maximally forced expiration initiated at full inspiration. Baseline is defined as the assessment on Day 1 and change from Baseline is the post-Baseline value minus Baseline value. Change from Baseline data is presented for Day 28 and Day 84. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles). |  |
| End point type  | Secondary  |
| End point timeframe:  |  |
| Baseline, Day 28, and Day 84  |  |

| End point values                     | Placebo              | GSK2269557<br>1000 mcg |  |  |
|--------------------------------------|----------------------|------------------------|--|--|
| Subject group type                   | Reporting group      | Reporting group        |  |  |
| Number of subjects analysed          | 63 <sup>[348]</sup>  | 63                     |  |  |
| Units: L/min                         |                      |                        |  |  |
| arithmetic mean (standard deviation) |                      |                        |  |  |
| Day 28, n=54, 57                     | -13.12 (±<br>60.421) | -4.76 (±<br>57.578)    |  |  |
| Day 84, n=45, 53                     | -0.52 (±<br>65.374)  | -0.85 (±<br>71.17)     |  |  |

Notes:

[348] - ITT Population

## Statistical analyses

No statistical analyses for this end point

## Secondary: Percent change from Baseline in Diffusion capacity (DLco, Kco) after 28 days and after 84 days of treatment

|                 |   |
|-----------------|---|
| End point title | Percent change from Baseline in Diffusion capacity (DLco, Kco) after 28 days and after 84 days of treatment |
|-----------------|---|

End point description:

DLco is diffusing capacity of the lungs for carbon monoxide and is defined as the extent to which oxygen passes from the air sacs of the lungs into the blood. KCO is the carbon monoxide transfer coefficient. It is an index of the efficiency of alveolar transfer of carbon monoxide. Baseline is defined as the assessment on Day 2 and percent change from Baseline is the post-Baseline value minus Baseline value/100. Change from Baseline data is presented for Day 28 and Day 84. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles).

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Baseline, Day 28 and Day 84

| End point values                     | Placebo               | GSK2269557<br>1000 mcg |  |  |
|--------------------------------------|-----------------------|------------------------|--|--|
| Subject group type                   | Reporting group       | Reporting group        |  |  |
| Number of subjects analysed          | 63 <sup>[349]</sup>   | 63                     |  |  |
| Units: Percent                       |                       |                        |  |  |
| arithmetic mean (standard deviation) |                       |                        |  |  |
| DLco Day 28, n=53, 56                | -2.783 (±<br>9.395)   | -0.687 (±<br>8.2655)   |  |  |
| DLco Day 84, n=45, 51                | -2.385 (±<br>9.6016)  | 0.56 (±<br>9.5434)     |  |  |
| Kco Day 28, n=53, 55                 | -2.745 (±<br>9.7851)  | -0.875 (±<br>8.0041)   |  |  |
| Kco Day 84, n=45, 50                 | -2.367 (±<br>10.2835) | -0.759 (±<br>8.7801)   |  |  |

Notes:

[349] - ITT Population

## Statistical analyses

No statistical analyses for this end point

**Secondary: Change from Baseline in total lung capacity (TLC) after 28 days and after 84 days of treatment**

|                 |  |
|-----------------|--|
| End point title | Change from Baseline in total lung capacity (TLC) after 28 days and after 84 days of treatment |
|-----------------|--|

End point description:

TLC is the maximum amount of air that can fill the lungs. Baseline is defined as the assessment on Day 2 and change from Baseline is the post-Baseline value minus Baseline value. Change from Baseline data is presented for Day 28 and Day 84. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles). Note: values mentioned as 95% confidence interval below are in fact values of 95% credible interval.

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Baseline, Day 28 and Day 84

|                                  |                          |                          |  |  |
|----------------------------------|--------------------------|--------------------------|--|--|
| <b>End point values</b>          | Placebo                  | GSK2269557 1000 mcg      |  |  |
| Subject group type               | Reporting group          | Reporting group          |  |  |
| Number of subjects analysed      | 63 <sup>[350]</sup>      | 63                       |  |  |
| Units: Liters                    |                          |                          |  |  |
| median (confidence interval 95%) |                          |                          |  |  |
| Day 28, n=53, 59                 | -0.01 (-0.211 to 0.19)   | -0.155 (-0.344 to 0.035) |  |  |
| Day 84, n=47, 55                 | -0.149 (-0.462 to 0.163) | -0.029 (-0.32 to 0.265)  |  |  |

Notes:

[350] - ITT Population

**Statistical analyses**

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 1 |
|-----------------------------------|------------------------|

Statistical analysis description:

Day 28

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 126                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 0.151                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Median difference (final values) |
| Point estimate                          | -0.144                           |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | -0.42                            |
| upper limit                             | 0.133                            |

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Statistical analysis title</b> | Statistical analysis 2 |
|-----------------------------------|------------------------|

## Statistical analysis description:

Day 84

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 126                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 0.712                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Median difference (final values) |
| Point estimate                          | 0.121                            |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | -0.305                           |
| upper limit                             | 0.551                            |

**Secondary: Change from Baseline in Residual Volume after 28 days and after 84 days of treatment**

|                 |  |
|-----------------|--|
| End point title | Change from Baseline in Residual Volume after 28 days and after 84 days of treatment |
|-----------------|--|

## End point description:

Residual volume is a lung volume representing the amount of air left in the lungs after a forced exhalation. Baseline is defined as the assessment on Day 2 and change from Baseline is the post-Baseline value minus Baseline value. Change from Baseline data is presented for Day 28 and Day 84. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles). Note: values mentioned as 95% confidence interval below are in fact values of 95% credible interval.

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

## End point timeframe:

Baseline, Day 28 and Day 84

| End point values                 | Placebo                  | GSK2269557 1000 mcg     |  |  |
|----------------------------------|--------------------------|-------------------------|--|--|
| Subject group type               | Reporting group          | Reporting group         |  |  |
| Number of subjects analysed      | 63 <sup>[351]</sup>      | 63                      |  |  |
| Units: Liters                    |                          |                         |  |  |
| median (confidence interval 95%) |                          |                         |  |  |
| Day 28, n=53, 59                 | -0.157 (-0.441 to 0.129) | 0.022 (-0.249 to 0.292) |  |  |
| Day 84, =47, 54                  | -0.113 (-0.43 to 0.206)  | 0.001 (-0.299 to 0.296) |  |  |

## Notes:

[351] - ITT Population

**Statistical analyses**

|                            |                        |
|----------------------------|------------------------|
| Statistical analysis title | Statistical analysis 1 |
|----------------------------|------------------------|

## Statistical analysis description:

Day 28

|   |                                  |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 126                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 0.817                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Median difference (final values) |
| Point estimate                          | 0.18                             |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | -0.216                           |
| upper limit                             | 0.57                             |

|   |                                  |
|---|----------------------------------|
| <b>Statistical analysis title</b>           | Statistical analysis 2           |
| Statistical analysis description:<br>Day 84 |                                  |
| Comparison groups                           | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis     | 126                              |
| Analysis specification                      | Pre-specified                    |
| Analysis type                               | other                            |
| P-value                                     | = 0.697                          |
| Method                                      | Bayesian repeated measures model |
| Parameter estimate                          | Median difference (final values) |
| Point estimate                              | 0.114                            |
| Confidence interval                         |                                  |
| level                                       | 95 %                             |
| sides                                       | 2-sided                          |
| lower limit                                 | -0.324                           |
| upper limit                                 | 0.549                            |

## Secondary: Change from Baseline in functional residual capacity after 28 days and after 84 days of treatment

|  |   |
|--|---|
| End point title  | Change from Baseline in functional residual capacity after 28 days and after 84 days of treatment |
| End point description:<br>Functional residual capacity is the volume of air present in the lungs at the end of passive expiration. Baseline is defined as the assessment on Day 2 and change from Baseline is the post-Baseline value minus Baseline value. Change from Baseline data is presented for Day 28 and Day 84. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles). |   |
| End point type   | Secondary   |
| End point timeframe:<br>Baseline, Day 28 and Day 84  |   |

| End point values                     | Placebo                | GSK2269557<br>1000 mcg |  |  |
|--------------------------------------|------------------------|------------------------|--|--|
| Subject group type                   | Reporting group        | Reporting group        |  |  |
| Number of subjects analysed          | 63 <sup>[352]</sup>    | 63                     |  |  |
| Units: Liters                        |                        |                        |  |  |
| arithmetic mean (standard deviation) |                        |                        |  |  |
| Day 28, n=52, 59                     | 0.001 (±<br>0.86637)   | -0.0919 (±<br>0.92501) |  |  |
| Day 84, n=46, 55                     | -0.2219 (±<br>1.06874) | -0.0505 (±<br>1.4191)  |  |  |

Notes:

[352] - ITT Population

## Statistical analyses

No statistical analyses for this end point

## Secondary: Change from Baseline in specific resistance (sRaw) after 28 days and after 84 days of treatment

|                 |   |
|-----------------|---|
| End point title | Change from Baseline in specific resistance (sRaw) after 28 days and after 84 days of treatment |
|-----------------|---|

End point description:

sRaw is the measure of specific resistance. Baseline is defined as the assessment on Day 2 and change from Baseline is the post-Baseline value minus Baseline value. Change from Baseline data is presented for Day 28 and Day 84. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles).

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Baseline, Day 28 and Day 84

| End point values                     | Placebo               | GSK2269557<br>1000 mcg |  |  |
|--------------------------------------|-----------------------|------------------------|--|--|
| Subject group type                   | Reporting group       | Reporting group        |  |  |
| Number of subjects analysed          | 63 <sup>[353]</sup>   | 63                     |  |  |
| Units: KPa*s                         |                       |                        |  |  |
| arithmetic mean (standard deviation) |                       |                        |  |  |
| Day 28, n= 17, 17                    | 0.9734 (±<br>0.45833) | 0.8372 (±<br>0.49176)  |  |  |
| Day 84, n=11, 13                     | 0.9949 (±<br>0.24484) | 0.8495 (±<br>0.39565)  |  |  |

Notes:

[353] - ITT Population

## Statistical analyses

No statistical analyses for this end point

## Secondary: Change from Baseline in specific conductance (sGaw) after 28 days and after 84 days of treatment

|                 |  |
|-----------------|--|
| End point title | Change from Baseline in specific conductance (sGaw) after 28 days and after 84 days of treatment |
|-----------------|--|

End point description:

Baseline is defined as the assessment on Day 2 and change from Baseline is the post-Baseline value minus Baseline value. Change from Baseline data is presented for Day 28 and Day 84. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles). Note: values mentioned as 95% confidence interval below are in fact values of 95% Credible Interval.

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Baseline, Day 28 and Day 84

| End point values                 | Placebo                  | GSK2269557<br>1000 mcg    |  |  |
|----------------------------------|--------------------------|---------------------------|--|--|
| Subject group type               | Reporting group          | Reporting group           |  |  |
| Number of subjects analysed      | 63 <sup>[354]</sup>      | 63                        |  |  |
| Units: 1/KPA*S                   |                          |                           |  |  |
| median (confidence interval 95%) |                          |                           |  |  |
| Day 28, n=47, 52                 | 0.875 (0.773<br>to 0.99) | 1.024 (0.91 to<br>1.15)   |  |  |
| Day 84, =40, 47                  | 0.965 (0.86 to<br>1.083) | 1.075 (0.967<br>to 1.197) |  |  |

Notes:

[354] - ITT Population

### Statistical analyses

| Statistical analysis title              | Statistical analysis 1           |
|---|----------------------------------|
| Comparison groups                       | GSK2269557 1000 mcg v Placebo    |
| Number of subjects included in analysis | 126                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 0.965                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Median difference (final values) |
| Point estimate                          | 1.171                            |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.988                            |
| upper limit                             | 1.388                            |

| Statistical analysis title | Statistical analysis 2        |
|----------------------------|-------------------------------|
| Comparison groups          | GSK2269557 1000 mcg v Placebo |



|   |                                  |
|---|----------------------------------|
| Number of subjects included in analysis | 126                              |
| Analysis specification                  | Pre-specified                    |
| Analysis type                           | other                            |
| P-value                                 | = 0.913                          |
| Method                                  | Bayesian repeated measures model |
| Parameter estimate                      | Median difference (final values) |
| Point estimate                          | 1.114                            |
| Confidence interval                     |                                  |
| level                                   | 95 %                             |
| sides                                   | 2-sided                          |
| lower limit                             | 0.953                            |
| upper limit                             | 1.305                            |

## Secondary: Questionnaires CAT and MMRC scale at Baseline, Day 28 and Day 84

|                 |  |
|-----------------|--|
| End point title | Questionnaires CAT and MMRC scale at Baseline, Day 28 and Day 84 |
|-----------------|--|

End point description:

The chronic obstructive pulmonary disease (COPD) assesement test (CAT) and Modified Medical Research Council (MMRC) Dyspnea Scale were completed at the indicated timepoints: Baseline, Day 28 and Day 84. CAT and MMRC scales are prestned as: 1.I never cough/I cough all the time 2.I have no phelgm in my chest at all/My chest is completely full of phelgm 3. My chest does not feel tight at all/My chest feels very tight 4.Walk up hilll or stairs not breathless/Walk up hill or stairs very breathless 5. Not limited doing any home activities/Very limited doing any home activities 6. Confident leaving home/No confident leaving home 7. I sleep soundly/I don't sleep soundly because of my lung condition and 8. I have lots of energy/I have no energy at all. Baseline is defined as the assessment on Day 1. Score 0 indicates not troubled with breathlessness to 4:too breathless. Only those participants available at the specified time points were analyzed (represented by n=X, X in the category titles).

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Baseline, Day 28 and Day 84

| End point values                                 | Placebo             | GSK2269557<br>1000 mcg |  |  |
|--|---------------------|------------------------|--|--|
| Subject group type                               | Reporting group     | Reporting group        |  |  |
| Number of subjects analysed                      | 63 <sup>[355]</sup> | 63                     |  |  |
| Units: Scores on a scale                         |                     |                        |  |  |
| arithmetic mean (standard deviation)             |                     |                        |  |  |
| never cough/cough all the time D28, n=58, 60     | -0.4 (± 1.16)       | -0.7 (± 1.14)          |  |  |
| never cough/cough all the time D84, n=53, 55     | -0.6 (± 1.48)       | -0.7 (± 0.99)          |  |  |
| No phlegm/full of phlegm in chest D28, n=58, 60  | -0.6 (± 1.26)       | -0.3 (± 1.24)          |  |  |
| No phlegm/full of phlegm in chest D84, n=53, 55  | -0.8 (± 1.2)        | -0.6 (± 1.18)          |  |  |
| No tightness/very tight chest D28, n=58, 60      | -0.2 (± 1.3)        | -0.3 (± 1.16)          |  |  |
| No tightness/very tight chest D84, n=53, 55      | -0.1 (± 1.43)       | -0.3 (± 1.34)          |  |  |
| Hill/stairs nobreathless/breathlessD28, n=58, 60 | -0.5 (± 0.98)       | -0.5 (± 1.08)          |  |  |

|   |               |               |  |  |
|---|---------------|---------------|--|--|
| Hill/stairs nobreathless/breathless D84, n=53, 55 | -0.4 (± 1.43) | -0.3 (± 1.03) |  |  |
| Unlimited/limited home activity D28, n=58, 60     | -0.3 (± 1.43) | -0.3 (± 1.15) |  |  |
| Unlimited/limited home activity D84, n=53, 55     | -0.3 (± 1.24) | -0.1 (± 1.39) |  |  |
| Confident/not confident leave home D28, n=58, 60  | -0.4 (± 1.24) | -0.1 (± 1.27) |  |  |
| Confident/not confident leave homeD84, n=53, 55   | -0.2 (± 1.49) | -0.3 (± 1.34) |  |  |
| Sound sleep/No sound sleep D28, n=58, 60          | -0.4 (± 1.11) | -0.2 (± 1.3)  |  |  |
| Sound sleep/No sound sleep D84, n=53, 55          | -0.3 (± 1.6)  | -0.3 (± 1.36) |  |  |
| Lot of energy/no energy D28, n=58, 60             | -0.1 (± 1.46) | -0.3 (± 1.22) |  |  |
| Lot of energy/no energy D84, n=53, 55             | -0.2 (± 1.49) | -0.3 (± 1.25) |  |  |
| CAT Total Score D28, n=58, 60                     | -2.9 (± 6.05) | -2.6 (± 5.13) |  |  |
| CAT Total Score D84, n=53, 55                     | -3 (± 7.16)   | -3.1 (± 5.45) |  |  |
| MMRC Dyspnoea Score D28, n=58, 60                 | -0.4 (± 0.75) | -0.2 (± 0.72) |  |  |
| MMRC Dyspnoea Score D84, n=53, 55                 | -0.4 (± 0.95) | -0.3 (± 0.71) |  |  |

Notes:

[355] - ITT Population

## Statistical analyses

No statistical analyses for this end point

## Secondary: Number of participants with treatment failures

|   |  |
|---|--|
| End point title   | Number of participants with treatment failures |
| End point description:  |  |
| Treatment failure types are presented as: recurrent exacerbations, prolonged treatment of current exacerbation (beyond 14 days), additional treatment with systemic / oral corticosteroids and / or antibiotics, and requirement for invasive mechanical ventilation. |  |
| End point type  | Secondary                                      |
| End point timeframe:  |  |
| 13 weeks  |  |

| End point values                               | Placebo             | GSK2269557<br>1000 mcg |  |  |
|--|---------------------|------------------------|--|--|
| Subject group type                             | Reporting group     | Reporting group        |  |  |
| Number of subjects analysed                    | 63 <sup>[356]</sup> | 63                     |  |  |
| Units: Participants                            |                     |                        |  |  |
| Recurrent exacerbation                         | 17                  | 13                     |  |  |
| Prolonged Treatment of current exacerbation    | 9                   | 7                      |  |  |
| continuation of treatment with SOC/antibiotics | 4                   | 3                      |  |  |
| Additional treatment with SOC/antibiotics      | 6                   | 6                      |  |  |
| Requirement of invasive mechanical ventilation | 0                   | 0                      |  |  |

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Notes:

[356] - ITT Population

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### **Statistical analyses**

No statistical analyses for this end point

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

Serious adverse events (SAEs) and non-serious AEs were collected from the start of study medication up to approximately 100 days.

Adverse event reporting additional description:

SAEs and non-serious AEs were collected in members of the Safety Population, comprised of all participants who received at least one dose of investigational product.

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

### Dictionary used

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

|                    |      |
|--------------------|------|
| Dictionary version | 18.1 |
|--------------------|------|

### Reporting groups

|                       |                     |
|-----------------------|---------------------|
| Reporting group title | GSK2269557 1000 mcg |
|-----------------------|---------------------|

Reporting group description:

Participants received 1000 mcg of GSK2269557 two inhalations per day administered via a dry powder inhaler for a duration of 84 days.

|                       |         |
|-----------------------|---------|
| Reporting group title | Placebo |
|-----------------------|---------|

Reporting group description:

Participants received placebo two inhalations per day administered via a dry powder inhaler for a duration of 84 days.

| Serious adverse events                               | GSK2269557 1000 mcg | Placebo          |  |
|--|---------------------|------------------|--|
| Total subjects affected by serious adverse events    |                     |                  |  |
| subjects affected / exposed                          | 8 / 63 (12.70%)     | 10 / 63 (15.87%) |  |
| number of deaths (all causes)                        | 0                   | 1                |  |
| number of deaths resulting from adverse events       |                     |                  |  |
| Investigations                                       |                     |                  |  |
| Blood sodium decreased                               |                     |                  |  |
| subjects affected / exposed                          | 1 / 63 (1.59%)      | 0 / 63 (0.00%)   |  |
| occurrences causally related to treatment / all      | 0 / 1               | 0 / 0            |  |
| deaths causally related to treatment / all           | 0 / 0               | 0 / 0            |  |
| Cardiac disorders                                    |                     |                  |  |
| Coronary artery stenosis                             |                     |                  |  |
| subjects affected / exposed                          | 1 / 63 (1.59%)      | 0 / 63 (0.00%)   |  |
| occurrences causally related to treatment / all      | 0 / 1               | 0 / 0            |  |
| deaths causally related to treatment / all           | 0 / 0               | 0 / 0            |  |
| General disorders and administration site conditions |                     |                  |  |
| Malaise  |                     |                  |  |

|   |                |                 |  |
|---|----------------|-----------------|--|
| subjects affected / exposed                     | 0 / 63 (0.00%) | 1 / 63 (1.59%)  |  |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 1           |  |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0           |  |
| Gastrointestinal disorders                      |                |                 |  |
| Constipation                                    |                |                 |  |
| subjects affected / exposed                     | 0 / 63 (0.00%) | 1 / 63 (1.59%)  |  |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 1           |  |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0           |  |
| Respiratory, thoracic and mediastinal disorders |                |                 |  |
| Chronic obstructive pulmonary disease           |                |                 |  |
| subjects affected / exposed                     | 4 / 63 (6.35%) | 9 / 63 (14.29%) |  |
| occurrences causally related to treatment / all | 0 / 7          | 0 / 14          |  |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0           |  |
| Hyperventilation                                |                |                 |  |
| subjects affected / exposed                     | 1 / 63 (1.59%) | 0 / 63 (0.00%)  |  |
| occurrences causally related to treatment / all | 0 / 1          | 0 / 0           |  |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0           |  |
| Psychiatric disorders                           |                |                 |  |
| Anxiety   |                |                 |  |
| subjects affected / exposed                     | 0 / 63 (0.00%) | 1 / 63 (1.59%)  |  |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 1           |  |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0           |  |
| Suicide attempt                                 |                |                 |  |
| subjects affected / exposed                     | 0 / 63 (0.00%) | 1 / 63 (1.59%)  |  |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 1           |  |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 1           |  |
| Infections and infestations                     |                |                 |  |
| Lower respiratory tract infection               |                |                 |  |
| subjects affected / exposed                     | 0 / 63 (0.00%) | 1 / 63 (1.59%)  |  |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 1           |  |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0           |  |
| Pneumonia                                       |                |                 |  |

|   |                |                |  |
|---|----------------|----------------|--|
| subjects affected / exposed                     | 1 / 63 (1.59%) | 0 / 63 (0.00%) |  |
| occurrences causally related to treatment / all | 1 / 1          | 0 / 0          |  |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          |  |
| Clostridium difficile infection                 |                |                |  |
| subjects affected / exposed                     | 1 / 63 (1.59%) | 0 / 63 (0.00%) |  |
| occurrences causally related to treatment / all | 0 / 1          | 0 / 0          |  |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          |  |

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

| <b>Non-serious adverse events</b>                     | <b>GSK2269557 1000 mcg</b> | <b>Placebo</b>   |  |
|---|----------------------------|------------------|--|
| Total subjects affected by non-serious adverse events |                            |                  |  |
| subjects affected / exposed                           | 31 / 63 (49.21%)           | 15 / 63 (23.81%) |  |
| Vascular disorders                                    |                            |                  |  |
| Hypertension  |                            |                  |  |
| subjects affected / exposed                           | 0 / 63 (0.00%)             | 4 / 63 (6.35%)   |  |
| occurrences (all)                                     | 0                          | 4                |  |
| Nervous system disorders                              |                            |                  |  |
| Headache  |                            |                  |  |
| subjects affected / exposed                           | 7 / 63 (11.11%)            | 5 / 63 (7.94%)   |  |
| occurrences (all)                                     | 12                         | 5                |  |
| Gastrointestinal disorders                            |                            |                  |  |
| Dry mouth   |                            |                  |  |
| subjects affected / exposed                           | 2 / 63 (3.17%)             | 5 / 63 (7.94%)   |  |
| occurrences (all)                                     | 2                          | 5                |  |
| Respiratory, thoracic and mediastinal disorders       |                            |                  |  |
| Cough   |                            |                  |  |
| subjects affected / exposed                           | 22 / 63 (34.92%)           | 2 / 63 (3.17%)   |  |
| occurrences (all)                                     | 22                         | 2                |  |

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

| Date            | Amendment   |
|-----------------|---|
| 13 January 2013 | <p>The amendment was created to incorporate the following modifications:</p> <ul style="list-style-type: none"><li>• Addition of photosensitivity protection wording,</li><li>• Addition of stratified randomization,</li><li>• Change visit window for visit 3 to 2 days,</li><li>• Clarification that women with uncertain postmenopausal status should be excluded, if not using protocol specified contraception methods 30 days prior to study start</li></ul> <p>Removal of the necessity to have second site staff reviewing treatment dosing at site,</p> <ul style="list-style-type: none"><li>• Clarification of dosing instructions on the day of a site visit,</li><li>• Addition of Medical Monitor's contact information,</li><li>• Other administrative changes, correction of typographical errors and inconsistencies in the protocol.</li></ul> |
| 15 May 2015     | <p>The amendment was created to exclude patients with a clinically significant pneumonia and to clarify that historical values (if the assessment was conducted as part of the standard of care) for blood gases, blood culture and sputum culture may also be collected if available.</p>  |

Notes:

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### Interruptions (globally)

Were there any global interruptions to the trial? No

### Limitations and caveats

None reported