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Clinical Trial Results Website

## Sponsor

Novartis Pharmaceuticals

## Generic Drug Name

Secukinumab

## Trial Indication(s)

Giant cell arteritis

## Protocol Number

## CAIN457ADE11C

## Protocol Title

A randomized, parallel-group, double-blind, placebo-controlled, multicenter phase 2 trial to investigate the safety and efficacy of secukinumab (AIN457) in patients with giant cell arteritis (TitAIN)

## Clinical Trial Phase

Phase 2
Phase of Drug Development
Phase IV

## Study Start/End Dates

Study Start Date: January 30, 2019 (Actual)
Primary Completion Date: June 08, 2021 (Actual)
Study Completion Date: June 08, 2021 (Actual)

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## Study Design/Methodology

This randomized, parallel-group, double-blind, placebo-controlled, multicenter, Phase II study was designed to evaluate the efficacy of secukinumab compared to placebo in combination with a 26 -week prednisolone taper regimen in terms of sustained remission in patients with newly diagnosed or relapsing GCA who were naïve to biological therapy. The study consisted of a Screening Period of up to 6 weeks (maximum duration), a 52 -week Treatment Period and an 8 -week Safety Follow-up Period.

## Centers

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## Objectives:

To evaluate the efficacy of secukinumab compared to placebo, in combination with a 26 -week prednisolone taper regimen, based on the proportion of patients with giant cell arteritis (GCA) who had sustained remission.

## Test Product (s), Dose(s), and Mode(s) of Administration

The study treatment (secukinumab 300 mg , and placebo) was administered by s.c. injections using 1 mL pre-filled syringes (PFSs) throughout the study.

Co-administered treatment: prednisolone provided as tablets ( $1 \mathrm{mg}, 5 \mathrm{mg}, 10 \mathrm{mg}, 20 \mathrm{mg}$ tablets) for daily administration

## Statistical Methods

The primary endpoint was the proportion of GCA patients who adhere to the prednisolone taper regimen and are in sustained remission until Week 28.

The response rate of the comparable placebo-arm of the GIACTA study were used as the prior distribution for the placebo response rate for the primary endpoint in this study. The prior distribution for the response rate on secukinumab was a uniform Beta distribution.

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Posterior distributions for the estimate of the odds ratio, risk-ratio and risk difference were derived by sampling from the posterior distributions of the response rates of secukinumab and placebo.

## Study Population: Key Inclusion/Exclusion Criteria

Inclusion Criteria:

Diagnosis of GCA classified according to the following criteria:
-Age at onset of disease $\geq 50$ years.
-History of ESR $\geq 30 \mathrm{~mm} / \mathrm{hr}$ or CRP $\geq 10 \mathrm{mg} / \mathrm{L}$.
-Unequivocal cranial symptoms of GCA (new-onset localized headache, scalp or temporal artery tenderness, ischemia-related vision loss, or otherwise unexplained mouth or jaw pain upon mastication)

## AND/OR

symptoms of polymyalgia rheumatica (PMR) defined as shoulder and/or hip girdle pain associated with inflammatory morning stiffness -Temporal artery biopsy revealing features of GCA
AND/OR
-evidence of large-vessel vasculitis by angiography or cross-sectional imaging study such as magnetic resonance angiography (MRA), computed tomography angiography (CTA), positron emission tomography-computed tomography (PET CT), or ultrasound

Patients with new onset GCA or relapsing GCA
(Definition new onset: diagnosis of GCA within 6 weeks of Baseline Visit; Definition relapsing GCA: diagnosis of GCA (in accordance with inclusion criterion no. 4) $>6$ weeks before Baseline Visit and in the meantime achieved remission (absence of signs and symptoms attributable to GCA and normalization of ESR ( $<30 \mathrm{~mm} / \mathrm{hr}$ ) and CRP ( $<10.0 \mathrm{mg} / \mathrm{L}$ ) included) including previous treatment with $\geq 25 \mathrm{mg} /$ day prednisolone equivalent for $\geq 2$ weeks.)

Active disease as defined by the presence of signs and symptoms of GCA (cranial or PMR) and elevated ESR $\geq 30 \mathrm{~mm} / \mathrm{hr}$, or CRP $\geq 10$ $\mathrm{mg} / \mathrm{L}$, attributed to active GCA within 6 weeks of Baseline.

Prednisolone dose of $25-60 \mathrm{mg} /$ day at Baseline.

Exclusion Criteria:

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Previous exposure to secukinumab or other biologic drug directly targeting Interleukin(IL)-17 or IL-17 receptor.
Patients treated with any cell-depleting therapies including but not limited to anti-CD20 or investigational agents (e.g. anti-CD3, anti-CD4, anti-CD5 or anti-CD19).

Patients who have previously been treated with any biologic agent including but not limited to tocilizumab, sirukumab, abatacept, or tumor necrosis factor alpha (TNFa) inhibitors (infliximab, adalimumab, etanercept, certolizumab, golimumab).

Patients who have previously been treated with tofacitinib or baricitinib.
Patients treated with i.v. immunoglobulins or plasmapheresis within 8 weeks prior to Baseline.
Patients treated with cyclophosphamide, tacrolimus or everolimus within 6 months prior to Baseline.
Patients treated with hydroxychloroquine, cyclosporine A, azathioprine, sulfasalazine or mycophenolate mofetil within 4 weeks of Baseline.
Patients treated with leflunomide within 8 weeks of Baseline unless a cholestyramine washout has been performed in which case the patient must be treated within 4 weeks of Baseline.

Patients treated with an alkylating agent except for cyclophosphamide as mentioned above.
Patients requiring systemic chronic glucocorticoid therapy for any other reason than GCA.
Chronic systemic glucocorticoid therapy over the last 4 years or longer; or inability, in the opinion of the investigator, to withdraw glucocorticoid therapy through protocol-defined taper regimen due to suspected or established adrenal insufficiency.

Patients requiring chronic (i.e. not occasional "prn") high potency opioid analgesics for pain management.
Active ongoing inflammatory diseases or underlying metabolic, hematologic, renal, hepatic, pulmonary, neurologic, endocrine, cardiac, infectious or gastrointestinal conditions, which in the opinion of the investigator immunosuppressed the patient and/or places the patient at unacceptable risk for participation in an immunomodulatory therapy.

History of renal trauma, glomerulonephritis, or patients with one kidney only, or a serum creatinine level exceeding $1.8 \mathrm{mg} / \mathrm{dL}$ (159.12 $\mu \mathrm{mol} / \mathrm{L})$.

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Screening total white blood cell (WBC) count $<3000 / \mu \mathrm{L}$, or platelets $<100000 / \mu \mathrm{L}$ or neutrophils $<1500 / \mu \mathrm{L}$ or hemoglobin $<8.3 \mathrm{~g} / \mathrm{dL}(83$ g/L).

Major ischemic event, unrelated to GCA, within 12 weeks of screening.
Known infection with human immunodeficiency virus (HIV), hepatitis B or hepatitis $C$ at screening or randomization.
Life vaccinations within 6 weeks prior to Baseline or planned vaccination during study participation until 12 weeks after last study treatment administration.

## Participant Flow Table

Overall Study

|  | Secukinumab | Placebo |  |
| :--- | :---: | :---: | :---: |
| Arm/Group Description | Participants received secukinumab at <br> a dose of 300 milligrams (mg) as <br> subcutaneous (s.c.) injection at <br> Baseline, Week 1,2,3,4 and then <br> every 4 weeks theafter through to <br> week 48 along with a 26-week <br> prednisolone tapering regimen. | Participants received placebo as <br> subcutaneous (s.c.) injection at <br> Baseline, Week 1,2,3,4 and then <br> every 4 weeks thereafter through to <br> week 48 along with a 26-week <br> prednisolone tapering regimen. |  |
| Started | 27 | 25 | 52 |
| Completed | 22 | 17 | 39 |
| Not Completed | 5 | 8 | 13 |
| Subject decision | 2 | 3 | 5 |
| Physician Decision | 2 | 4 | 6 |
| Death | 0 | 1 | 1 |
| Lost to Follow-up | 1 | 0 | 1 |

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## Baseline Characteristics

|  | Secukinumab | Placebo | Total |
| :---: | :---: | :---: | :---: |
| Arm/Group Description | Participants received secukinumab at a dose of 300 milligrams ( mg ) as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. | Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. |  |
| Number of Participants [units: participants] | 27 | 25 | 52 |
| Baseline Analysis Population Description | The Full Analysis Set (FAS) comprised all patients to whom study treatment had been assigned by randomization and who received at least one dose of randomized study treatment (secukinumab or placebo). |  |  |
| Age Continuous <br> (units: years) <br> Analysis Population Type: Participants Mean $\pm$ Standard Deviation |  |  |  |
|  | $76.4 \pm 5.31$ | $69.6 \pm 8.02$ | $73.1 \pm 7.52$ |
| Sex: Female, Male <br> (units: participants) <br> Analysis Population Type: Participants Count of Participants (Not Applicable) |  |  |  |
| Female | 17 | 18 | 35 |
| Male | 10 | 7 | 17 |
| Race/Ethnicity, Customized <br> (units: participants) <br> Analysis Population Type: Participants Count of Participants (Not Applicable) |  |  |  |
| White | 27 | 25 | 52 |

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## Primary Outcome Result(s)

## Percentage of participants in sustained remission until Week 28

Description Remission was defined as the absence of flare. Sustained remission was defined as the absence of flare until Week 28 and in adherence to the protocol prednisolone taper regimen. Flare was determined by the investigator and was defined as the recurrence after remission of signs or symptoms of Giant Cell Arteritis (GCA) and/or erythrocyte sedimentation rate (ESR) greater than or equal to (>/=) 30 millimeters per hour $(\mathrm{mm} / \mathrm{hr})$ and/or C-reactive Protein (CRP) (>/=10.0 mg/L) attributable to GCA. Patients were classified as non-responders if they did not achieve remission within 12 weeks of Baseline (remission referred to the absence of flare), were in the "escape arm" (this referred to patients entering escape between Baseline and Week 28), prematurely discontinued study treatment prior to Week 28 (absence of flare was checked prior to study treatment administration), did not have information to evaluate sustained remission response until Week 28.
Time Frame Until week 28

Analysis
Population Description

The Full Analysis Set (FAS) comprised all patients to whom study treatment had been assigned by randomization and who received at least one dose of randomized study treatment (secukinumab or placebo).

Participants received secukinumab at a dose of 300 milligrams ( mg ) as subcutaneous (s.c.) injection at Baseline,
Week $1,2,3,4$ and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen.

Placebo
Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen.

|  | regimen. | tapering regimen. |
| :--- | :---: | :---: |
| Number of Participants Analyzed [units: participants] | 27 | 25 |
| Percentage of participants in sustained remission until Week 28 <br> (units: Participants) | Count of Participants <br> (Not Applicable) | Count of Participants <br> (Not Applicable) |
|  | 19 | 6 |
|  | $(70.37 \%)$ | $(24 \%)$ |

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## Statistical Analysis

| Groups | Secukinumab, <br> Placebo | Odds Ratio |
| :--- | :--- | :--- |
| Type of Statistical Test | Superiority | Odd Ratio (posterior median) median and 95\% <br> credibility interval calculated using the Bayesian <br> inference |
| Odds Ratio (OR) | 9.31 |  |

95
\% Confidence Interval 3.54 to 26.29
2-Sided

## Secondary Outcome Result(s)

## Percentage of participants in remission at Week 12

Description Remission was defined as the absence of flare. Sustained remission was defined as the absence of flare until Week 28 and in adherence to the protocol prednisolone taper Regimen. Flare was determined by the investigator and was defined as the recurrence after remission of signs or symptoms of GCA and/or erythrocyte sedimentation rate (ESR) greater than or equal to ( $>/=$ ) 30 millimeters per hour ( $\mathrm{mm} / \mathrm{hr}$ ) and/or CRP ( $>/=10.0 \mathrm{mg} / \mathrm{L}$ ) attributable to GCA. Patients were classified as non-responders if they did not achieve remission within 12 weeks of Baseline (remission referred to the absence of flare), were in the "escape arm" (this referred to patients entering escape between Baseline and Week 28), prematurely discontinued study treatment prior to Week 28 (absence of flare was checked prior to study treatment administration), did not have information to evaluate sustained remission response until Week 28.

Time Frame
Analysis
Population
Description

Week 12
The Full Analysis Set (FAS) comprised all patients to whom study treatment had been assigned by randomization and who received at least one dose of randomized study treatment (secukinumab or placebo).

| Secukinumab | Placebo |  |
| :---: | :---: | :---: |
| Arm/Group Description | Participants received secukinumab at a | Participants received placebo as |
| dose of 300 milligrams $(\mathrm{mg})$ as | subcutaneous $($ s.c. $)$ injection at |  |

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|  | subcutaneous (s.c.) injection at Baseline, <br> Week 1,2,3,4 and then every 4 weeks <br> thereafter through to week 48 along with <br> a 26-week prednisolone tapering <br> regimen. | Baseline, Week 1,2,3,4 and then every 4 <br> weeks thereafter through to week 48 <br> along with a 26-week prednisolone <br> tapering regimen. |
| :--- | :---: | :---: |
| Number of Participants Analyzed [units: participants] | 27 | 25 |
| Percentage of participants in remission at Week 12 <br> (units: Participants) | Count of Participants <br> (Not Applicable) | Count of Participants <br> (Not Applicable) |
|  | 22 | 12 |

## Time to first GCA flare after clinical remission

Description Flare was determined by the investigator and was defined as the recurrence after remission of signs or symptoms of GCA and/or erythrocyte
 to first flare after remission referred to time from first day of study treatment until first post-Baseline flare. For time to first GCA flare after remission (up to and including Week 52), patients who prematurely discontinued study treatment prior to Week 52 were censored at the time of premature discontinuation and patients who completed treatment and did not have a flare were censored at their last visit in the treatment phase. Time to first GCA flare after remission was calculated using Kaplan-Meier plot of time.

Time Frame
Up to Week 52 (included)
Analysis
Population
Description
one dose of randomized study treatment (secukinumab or placebo).

Participants received secukinumab at a dose of 300 milligrams ( mg ) as subcutaneous (s.c.) injection at Baseline Week $1,2,3,4$ and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen.

Placebo

Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen.

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| Time to first GCA flare after clinical remission <br> (units: days) | Median <br> (95\% Confidence Interval) | Median <br> (95\% Confidence Interval) |
| :--- | :---: | :---: |
|  | NA | 197.0 |
|  | (NA to NA) ${ }^{[1]}$ | $(101.0$ to 280.0$)$ |

[1] NA: not enough participants with events to calculate the median \& Cl

## Total cumulative prednisolone dose over 28 weeks and 52 weeks

Description Total cumulative co-administered prednisolone treatment was summarized over time by treatment arm. Patients received a daily dose of prednisolone, which was decreased (i.e. tapered down) from Baseline to Week 26. No additional prednisolone or equivalent was permitted.

Time Frame from Baseline to week 28, from baseline to week 52 weeks

Analysis
Population
Description
The Full Analysis Set (FAS) comprised all patients to whom study treatment had been assigned by randomization and who received at least one dose of randomized study treatment (secukinumab or placebo).

Secukinumab
Participants received secukinumab at a dose of 300 milligrams ( mg ) as

## Arm/Group Description

|  | regimen. | tapering regimen. |
| :--- | :---: | :---: |
| Number of Participants Analyzed [units: participants] | 27 | 25 |
| Total cumulative prednisolone dose over 28 weeks and 52 weeks <br> (units: milligrams) | Mean |  |
| Baseline to Week 28 | $\pm$ Standard Deviation | $\pm$ Standard Deviation |
| Baseline to Week 52 | $2689.70 \pm 935.860$ | $2693.74 \pm 1241.907$ |

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## Percentage of participants with GCA who had sustained remission until Week 52

Description Remission was defined as the absence of flare. Sustained remission was defined as patients without flare until Week 52 and in adherence to the protocol prednisolone taper regimen plus prednisolone-free phase from Week 27 onwards. Flare was determined by the investigator and was defined as the recurrence after remission of signs or symptoms of GCA and/or erythrocyte sedimentation rate (ESR) greater than or equal to $(>/=) 30$ millimeters per hour ( $\mathrm{mm} / \mathrm{hr}$ ) and/or CRP $(>/=10.0 \mathrm{mg} / \mathrm{L})$ attributable to GCA. Patients were classified as non-responders if they did not achieve remission within 12 weeks of Baseline (remission referred to the absence of flare), were in the "escape arm" (this referred to patients entering escape between Baseline and Week 28), prematurely discontinued study treatment prior to Week 28 (absence of flare was checked prior to study treatment administration), did not have information to evaluate sustained remission response until Week 28.
Time Frame
Analysis
Population
Description
The Full Analysis Set (FAS) comprised all patients to whom study treatment had been assigned by randomization and who received at least one dose of randomized study treatment (secukinumab or placebo).

|  | Secukinumab | Placebo |
| :---: | :---: | :---: |
| Arm/Group Description | Participants received secukinumab at a dose of 300 milligrams ( mg ) as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. | Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. |
| Number of Participants Analyzed [units: participants] | 27 | 25 |
| Percentage of participants with GCA who had sustained remission until Week 52 <br> (units: Participants) | Count of Participants (Not Applicable) | Count of Participants (Not Applicable) |
|  | $\begin{gathered} 16 \\ (59.26 \%) \end{gathered}$ | $\begin{gathered} 2 \\ (8 \%) \end{gathered}$ |

## Number of participants on prednisolone dose $\leq 5 \mathrm{mg} /$ day

Description $\quad$| Number of participants on co-administered prednisolone treatment $\leq 5 \mathrm{mg} /$ day who responded at Week 19 , Week 26 and Week 52. |
| :--- |
| Remission was defined as the absence of flare. Sustained remission was defined as the absence of flare until Week 28 and in adherence to |
| the protocol prednisolone taper Regimen. There were 2 taper regimens: for patients on 40 to $60 \mathrm{mg} /$ day prednisolone at Baseline and for |

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patients on 25 to $40 \mathrm{mg} /$ day prednisolone at Baseline depending on patients' prednisolone levels at Baseline. Prednisolone was tapered from a dose of 25 mg to 60 mg at Baseline to 1 mg at Week 26 [last dose].

Time Frame
Analysis
Population
Description
The Full Analysis Set (FAS) comprised all patients to whom study treatment had been assigned by randomization and who received at least one dose of randomized study treatment (secukinumab or placebo). n represents the number of participants with a value for a specific categorical variable at Week 19, 28 and 52.

|  | Secukinumab | Placebo |
| :---: | :---: | :---: |
| Arm/Group Description | Participants received secukinumab at a dose of 300 milligrams ( mg ) as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. | Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. |
| Number of Participants Analyzed [units: participants] | 27 | 25 |
| Number of participants on prednisolone dose $\leq 5 \mathrm{mg} /$ day (units: Participants) | Count of Participants (Not Applicable) | Count of Participants (Not Applicable) |
| Week 19 ( $\mathrm{n}=25,20$ ) | $\begin{gathered} 22 \\ (88 \%) \end{gathered}$ | $\begin{gathered} 10 \\ (50 \%) \end{gathered}$ |
| Week 28 ( $\mathrm{n}=23,20$ ) | $\begin{gathered} 19 \\ (82.61 \%) \end{gathered}$ | $\begin{gathered} 9 \\ (45 \%) \end{gathered}$ |
| Week 52 ( $\mathrm{n}=21,17$ ) | $\begin{gathered} 19 \\ (90.48 \%) \end{gathered}$ | $\begin{gathered} 13 \\ (76.47 \%) \end{gathered}$ |

## Physicians global assessment (PhGA) of disease activity: Change from Baseline Score via visual analogue scale (VAS)

Description Clinician Reported Outcome: Physicians global assessment (PhGA) using a visual analogue scale (VAS) scale. VAS is a range of scores from $0-100$, with lower change from baseline scores indicating a more favorable outcome and higher change from baseline scores indicating a greater disease activity.

Time Frame $\quad$ Baseline, Weeks 4, 8, 12, 16, 20, 24, 28, 36, 44 \& 52

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Analysis
Population
Description

The Full Analysis Set (FAS) comprised all patients to whom study treatment had been assigned by randomization and who received at least one dose of randomized study treatment (secukinumab or placebo). The change from baseline at each visit is calculated only for subjects with a value at baseline and the particular visit.

|  | Secukinumab | Placebo |
| :---: | :---: | :---: |
| Arm/Group Description | Participants received secukinumab at a dose of 300 milligrams ( mg ) as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. | Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. |
| Number of Participants Analyzed [units: participants] | 27 | 23 |
| Physicians global assessment (PhGA) of disease activity: Change from Baseline Score via visual analogue scale (VAS) <br> (units: scores on a scale) | Mean $\pm$ Standard Deviation | Mean <br> $\pm$ Standard Deviation |
| Week 4 ( $\mathrm{n}=27,23$ ) | $-4.8 \pm 14.43$ | $-3.2 \pm 18.45$ |
| Week 8 ( $\mathrm{n}=26,21$ ) | $-5.8 \pm 12.77$ | $2.1 \pm 18.94$ |
| Week 12 ( $\mathrm{n}=25,20$ ) | $-3.4 \pm 21.93$ | $-3.1 \pm 10.81$ |
| Week 16 ( $\mathrm{n}=25,20$ ) | $-4.1 \pm 15.62$ | $0.7 \pm 13.97$ |
| Week 20 ( $\mathrm{n}=24,20$ ) | $-6.9 \pm 14.78$ | $-1.5 \pm 14.32$ |
| Week 24 ( $\mathrm{n}=23,20$ ) | $-4.3 \pm 15.92$ | $2.2 \pm 17.22$ |
| Week $28(23,19)$ | $-5.4 \pm 15.61$ | $3.9 \pm 21.47$ |
| Week $36(21,19)$ | $-8.7 \pm 18.45$ | $0.7 \pm 17.45$ |
| Week $44(\mathrm{n}=21,16$ ) | $-5.5 \pm 16.87$ | $1.1 \pm 15.20$ |
| Week $52(\mathrm{n}=21,16$ ) | $-9.5 \pm 16.72$ | $4.0 \pm 21.24$ |

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Patients global assessment (PGA) of disease activity: Change from Baseline via visual analogue scale (VAS)

Description Patient Reported Outcome: Patients global assessment (PGA) score using a VAS scale. VAS is a range of scores from 0-100, with lower change from baseline scores indicating a more favorable outcome and higher change from baseline scores indicating a greater disease activity.

Time Frame
Baseline, Weeks 4, 8, 12, 16, 20, 24, 28, 36, 44 \& 52
Analysis
Population
Description
The Full Analysis Set (FAS) comprised all patients to whom study treatment had been assigned by randomization and who received at least one dose of randomized study treatment (secukinumab or placebo). The change from baseline at each visit is calculated only for subjects with a value at baseline and the particular visit.

|  | Secukinumab | Placebo |
| :---: | :---: | :---: |
| Arm/Group Description | Participants received secukinumab at a dose of 300 milligrams ( mg ) as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. | Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. |
| Number of Participants Analyzed [units: participants] | 27 | 23 |
| Patients global assessment (PGA) of disease activity: Change from Baseline via visual analogue scale (VAS) <br> (units: scores on a scale) | Mean <br> $\pm$ Standard Deviation | Mean <br> $\pm$ Standard Deviation |
| Week 4 ( $\mathrm{n}=27,23$ ) | $-15.8 \pm 28.17$ | $-0.5 \pm 23.58$ |
| Week 8 ( $\mathrm{n}=26,21$ ) | $-15.8 \pm 27.61$ | $-10.8 \pm 27.64$ |
| Week 12 ( $\mathrm{n}=25,20$ ) | $-8.0 \pm 29.43$ | $-11.9 \pm 31.46$ |
| Week 16 ( $\mathrm{n}=25,20$ ) | $-18.6 \pm 19.39$ | $-8.8 \pm 31.43$ |
| Week 20 ( $\mathrm{n}=24,20$ ) | $-19.18 \pm 30.68$ | $-6.9 \pm 31.94$ |
| Week 24 ( $\mathrm{n}=23,20$ ) | $-14.9 \pm 28.84$ | $-7.0 \pm 30.61$ |
| Week 28 ( $\mathrm{n}=23,19$ ) | $-14.4 \pm 25.46$ | $-8.0 \pm 31.31$ |

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| Week $36(\mathrm{n}=21,19)$ | $-20.9 \pm 22.31$ | $-8.6 \pm 29.90$ |
| :--- | :--- | :---: |
| Week $44(\mathrm{n}=21,16)$ | $-21.7 \pm 27.35$ | $-9.4 \pm 30.58$ |
| Week $52(\mathrm{n}=21,16)$ | $-19.2 \pm 27.35$ | $-15.9 \pm 24.04$ |

## Change from Baseline in FACIT-Fatigue scale

Description Patient Reported Outcome: Functional Assessment of Chronic Illness Therapy (FACIT)-Fatigue is a 13-item questionnaire with a full scale of $0-52$ that assesses self-reported fatigue and its impact upon daily activities and function. The higher the score the better functioning (less fatigue).
Time Frame $\quad$ Baseline, Weeks 4, 8, 12, 16, 20, 24, 28, 36, 44 \& 52
Analysis
Population
The Full Analysis Set (FAS) comprised all patients to whom study treatment had been assigned by randomization and who received at least one dose of randomized study treatment (secukinumab or placebo). The change from baseline at each visit is calculated only for subjects with
Description a value at baseline and the particular visit.

## Secukinumab

Participants received secukinumab at a dose of 300 milligrams ( mg ) as subcutaneous (s.c.) injection at Baseline, Week $1,2,3,4$ and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering
regimen.

## Placebo

Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen.
\(\left.$$
\begin{array}{lcc}\hline \text { Number of Participants Analyzed [units: participants] } & 27 & 23 \\
\hline \begin{array}{l}\text { Change from Baseline in FACIT-Fatigue scale } \\
\text { (units: scores on a scale) }\end{array} & \begin{array}{c}\text { Mean } \\
\text { Mean }\end{array}
$$ <br>

\hline Week 4(n=27,23) \& 2.11 \pm 9.613 \& \pm Standard Deviation\end{array}\right]\)| Week $8(n=26,21)$ | $2.19 \pm 10.190$ | $0.96 \pm 7.358$ |
| :--- | :---: | :---: |
| Week 12 $(\mathrm{n}=25,20)$ | $0.96 \pm 11.175$ | $-0.25 \pm 10.047$ |
| Week $16(\mathrm{n}=25,20)$ | $2.12 \pm 8.876$ | $-0.36 \pm 8.884$ |
| Week $20(\mathrm{n}=24,20)$ | $3.42 \pm 8.617$ | $0.05 \pm 10.318$ |

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| Week $24(n=23,20)$ | $2.91 \pm 10.409$ | $-3.10 \pm 11.281$ |
| :--- | :---: | :---: |
| Week $28(n=23,19)$ | $3.61 \pm 11.044$ | $0.42 \pm 9.203$ |
| Week $36(n=21,19)$ | $3.90 \pm 7.245$ | $1.84 \pm 8.719$ |
| Week $44(n=21,16)$ | $2.67 \pm 5.986$ | $0.31 \pm 10.928$ |
| Week $52(n=21,16)$ | $3.19 \pm 7.033$ | $0.19 \pm 8.848$ |

## Change from Baseline in Short-Form (SF)-36 questionnaire

Description Patient Reported Outcome: The SF-36 is a standardized questionnaire used to measure health-related quality of life among healthy patients and patients with acute and chronic conditions. It consists of 8 subscales that can be scored individually: Physical Functioning, Role-Physical, Bodily Pain, General Health, Vitality, Social Functioning, Role-Emotional and Mental Health. The higher the score (change from baseline) the more favorable the outcome. The values were reported by change from baseline in SF-36 domain scores.

Time Frame
Analysis
Population
Description
Baseline, Weeks 4, 8, 12, 16, 20, 24, 28, 36, 44 \& 52
The Full Analysis Set (FAS) comprised all patients to whom study treatment had been assigned by randomization and who received at least one dose of randomized study treatment (secukinumab or placebo). The change from baseline at each visit is calculated only for subjects with a value at baseline and the particular visit.

## Secukinumab

Participants received secukinumab at a dose of 300 milligrams ( mg ) as subcutaneous (s.c.) injection at Baseline
Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen.

Placebo

Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen.

|  |  | 23 |
| :--- | :---: | :---: |
| Number of Participants Analyzed [units: participants] | 27 | Mean <br> Change from Baseline in Short-Form (SF)-36 questionnaire <br> (units: scores on a scale) |
| Week 4: Physical Functioning (PF) $(\mathrm{n}=27,23)$ | $\pm$ Standard Deviation | $\pm$ Standard Deviation |

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| Week 12: PF ( $\mathrm{n}=25,20$ ) | $0.38 \pm 6.322$ | $-0.38 \pm 8.750$ |
| :---: | :---: | :---: |
| Week 16: PF ( $\mathrm{n}=25,20$ ) | $-0.00 \pm 8.646$ | $-0.86 \pm 6.814$ |
| Week 20: PF ( $\mathrm{n}=24,20$ ) | $0.80 \pm 8.098$ | $-0.10 \pm 6.495$ |
| Week 24: PF ( $\mathrm{n}=22,20$ ) | $0.52 \pm 5.702$ | $-2.11 \pm 8.667$ |
| Week 28: PF ( $\mathrm{n}=23,19$ ) | $1.25 \pm 5.276$ | $-0.40 \pm 6.460$ |
| Week 36: PF ( $\mathrm{n}=21,19$ ) | $1.37 \pm 5.778$ | $-1.31 \pm 6.631$ |
| Week 44: PF ( $\mathrm{n}=21,16$ ) | $1.00 \pm 6.674$ | $-0.36 \pm 8.065$ |
| Week 52: PF ( $\mathrm{n}=21,16$ ) | $2.46 \pm 4.770$ | $0.12 \pm 5.696$ |
| Week 4: Role-Physical (R-P) ( $\mathrm{n}=27,23$ ) | $3.49 \pm 7.886$ | $0.49 \pm 10.616$ |
| Week 8: R-P ( $\mathrm{n}=26,21$ ) | $3.80 \pm 9.628$ | $-0.75 \pm 10.515$ |
| Week 12: R-P ( $\mathrm{n}=25,20$ ) | $3.32 \pm 9.3301$ | $1.01 \pm 9.539$ |
| Week 16: R-P $(\mathrm{n}=25,20)$ | $4.58 \pm 8.947$ | $-1.12 \pm 8.847$ |
| Week 20: R-P ( $\mathrm{n}=24,20$ ) | $4.40 \pm 9.538$ | $-0.45 \pm 8.163$ |
| Week 24: R-P ( $\mathrm{n}=22,20$ ) | $3.37 \pm 7.458$ | $-0.00 \pm 10.094$ |
| Week 28: R-P ( $\mathrm{n}=23,19$ ) | $5.96 \pm 10.034$ | $1.77 \pm 8.553$ |
| Week 36: R-P ( $\mathrm{n}=21,19$ ) | $5.99 \pm 6.444$ | $0.24 \pm 10.121$ |
| Week 44: R-P ( $\mathrm{n}=21,16$ ) | $5.13 \pm 6.515$ | $0.70 \pm 11.262$ |
| Week 52: R-P ( $\mathrm{n}=21,16$ ) | $6.20 \pm 6.659$ | $1.40 \pm 9.126$ |
| Week 4: Bodily Pain (BP) $(\mathrm{n}=27,23)$ | $8.03 \pm 13.272$ | $7.68 \pm 11.235$ |
| Week 8: BP ( $\mathrm{n}=26,21$ | $5.80 \pm 14.475$ | $9.68 \pm 10.485$ |
| Week 12: BP ( $\mathrm{n}=25,20$ ) | $6.92 \pm 13.426$ | $6.84 \pm 11.674$ |
| Week 16: BP ( $\mathrm{n}=25,20$ ) | $7.69 \pm 14.841$ | $4.50 \pm 13.560$ |
| Week 20: BP ( $n=24,20)$ | $6.10 \pm 14.072$ | $8.63 \pm 12.457$ |
| Week 24: BP ( $\mathrm{n}=22,20$ ) | $5.97 \pm 12.689$ | $3.93 \pm 11.952$ |
| Week 28: BP ( $\mathrm{n}=23,19$ ) | $6.47 \pm 12.643$ | $6.32 \pm 13.149$ |

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| Week 36: BP ( $\mathrm{n}=21,19$ ) | $7.20 \pm 13.724$ | $7.81 \pm 10.794$ |
| :---: | :---: | :---: |
| Week 44: BP ( $\mathrm{n}=21,16$ ) | $8.01 \pm 15.378$ | $9.00 \pm 7.910$ |
| Week 52: BP ( $\mathrm{n}=21,16$ ) | $5.49 \pm 12.328$ | $8.39 \pm 11.866$ |
| Week 4: General Health (GH) ( $\mathrm{n}=27,23$ ) | $3.49 \pm 9.207$ | $0.23 \pm 6.761$ |
| Week 8: GH ( $\mathrm{n}=26,21$ ) | $2.74 \pm 8.119$ | $0.18 \pm 6.758$ |
| Week 12: GH ( $\mathrm{n}=25,20$ | $2.22 \pm 7.383$ | $0.62 \pm 8.158$ |
| Week 16: GH ( $\mathrm{n}=25,20$ ) | $2.28 \pm 8.235$ | $-0.74 \pm 7.858$ |
| Week 20: GH ( $\mathrm{n}=24,20$ ) | $4.50 \pm 6.774$ | $-0.38 \pm 7.933$ |
| Week 24: GH ( $\mathrm{n}=22,20$ ) | $2.85 \pm 7.149$ | $-0.19 \pm 9.031$ |
| Week 28: GH ( $\mathrm{n}=23,19$ ) | $3.53 \pm 7.285$ | $1.18 \pm 7.837$ |
| Week 36:GH ( $\mathrm{n}=21,19$ ) | $3.42 \pm 6.680$ | $-0.47 \pm 7.833$ |
| Week 44: GH ( $\mathrm{n}=21,16$ ) | $1.02 \pm 8.127$ | $-0.30 \pm 9.597$ |
| Week 52: GH ( $\mathrm{n}=21,16$ ) | $3.03 \pm 6.733$ | $0.15 \pm 10.277$ |
| Week 4: Vitality ( $\mathrm{n}=27,23$ ) | $4.07 \pm 8.607$ | $-1.42 \pm 7.699$ |
| Week 8: Vitality ( $\mathrm{n}=26,21$ ) | $2.17 \pm 7.952$ | $0.71 \pm 8.185$ |
| Week 12: Vitality ( $\mathrm{n}=25,20$ ) | $3.57 \pm 7.477$ | $-0.30 \pm 9.241$ |
| Week 16: Vitality ( $\mathrm{n}=25,20$ ) | $4.28 \pm 7.431$ | $-0.45 \pm 7.847$ |
| Week 20: Vitality ( $\mathrm{n}=24,20$ ) | $4.70 \pm 8.445$ | $0.45 \pm 9.652$ |
| Week 24: Vitality ( $\mathrm{n}=22,20$ ) | $3.78 \pm 7.112$ | $-1.93 \pm 11.697$ |
| Week 28: Vitality ( $\mathrm{n}=23,19$ ) | $6.20 \pm 7.489$ | $0.16 \pm 6.679$ |
| Week 36: Vitality ( $\mathrm{n}=21,19$ ) | $7.07 \pm 7.060$ | $1.41 \pm 5.635$ |
| Week 44: Vitality ( $\mathrm{n}=21,16$ ) | $6.08 \pm 8.375$ | $-0.93 \pm 12.497$ |
| Week 52: Vitality ( $\mathrm{n}=21,16$ ) | $7.21 \pm 8.690$ | $0.37 \pm 11.474$ |
| Week 4: Social Functioning (SF) ( $\mathrm{n}=27,23$ ) | $3.71 \pm 7.939$ | $1.74 \pm 7.499$ |
| Week 8: SF ( $\mathrm{n}=26,21$ ) | $4.82 \pm 8.327$ | $2.63 \pm 9.979$ |

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| Week 12: SF ( $\mathrm{n}=25,20$ ) | $4.01 \pm 9.154$ | $1.76 \pm 7.325$ |
| :---: | :---: | :---: |
| Week 16: SF ( $\mathrm{n}=25,20$ ) | $5.21 \pm 11.069$ | $0.75 \pm 7.325$ |
| Week 20: SF ( $\mathrm{n}=24,20$ ) | $4.81 \pm 10.080$ | $3.51 \pm 8.150$ |
| Week 24: SF ( $\mathrm{n}=22,20$ ) | $4.56 \pm 8.602$ | $0.00 \pm 10.912$ |
| Week 28: SF ( $\mathrm{n}=23,19$ ) | $3.49 \pm 8.476$ | $3.17 \pm 9.631$ |
| Week 36: SF ( $\mathrm{n}=21,19$ ) | $7.16 \pm 10.703$ | $5.01 \pm 7.285$ |
| Week 44: SF ( $\mathrm{n}=21,16$ ) | $6.45 \pm 8.988$ | $0.63 \pm 11.561$ |
| Week 52: SF ( $\mathrm{n}=21,16$ ) | $7.16 \pm 8.621$ | $2.82 \pm 9.681$ |
| Week 4: Role-Emotional (RE) $(\mathrm{n}=27,23)$ | $-0.77 \pm 12.454$ | $3.48 \pm 12.985$ |
| Week 8: RE ( $\mathrm{n}=26,21$ ) | $3.08 \pm 11.457$ | $1.99 \pm 13.239$ |
| Week 12: RE ( $\mathrm{n}=25,20$ ) | $-0.42 \pm 12.076$ | $0.52 \pm 13.188$ |
| Week 16: RE $(\mathrm{n}=25,20)$ | $3.76 \pm 10.586$ | $-0.00 \pm 11.465$ |
| Week 20: RE $(\mathrm{n}=24,20)$ | $3.48 \pm 11.058$ | $0.35 \pm 11.569$ |
| Week 24: RE ( $\mathrm{n}=22,20$ ) | $2.85 \pm 11.753$ | $-1.22 \pm 16.025$ |
| Week 28: RE $(\mathrm{n}=23,19)$ | $3.63 \pm 11.853$ | $1.10 \pm 11.725$ |
| Week 36: RE ( $\mathrm{n}=21,19$ ) | $5.47 \pm 10.066$ | $0.73 \pm 16.518$ |
| Week 44: RE ( $\mathrm{n}=21,16$ ) | $4.15 \pm 12.293$ | $3.26 \pm 16.354$ |
| Week 52: RE ( $\mathrm{n}=21,16$ ) | $6.14 \pm 11.385$ | $0.43 \pm 19.234$ |
| Week 4: Mental Health (MH) ( $\mathrm{n}=27,23$ ) | $3.0 \pm 8.514$ | $0.57 \pm 8.420$ |
| Week 8: MH ( $\mathrm{n}=26,21$ ) | $2.82 \pm 10.643$ | $1.49 \pm 6.950$ |
| Week 12: MH ( $\mathrm{n}=25,20$ ) | $3.14 \pm 10.786$ | $4.45 \pm 7.690$ |
| Week 16: MH ( $\mathrm{n}=25,20$ ) | $4.29 \pm 8.337$ | $5.36 \pm 6.379$ |
| Week 20: MH ( $\mathrm{n}=24,20$ ) | $3.49 \pm 10.926$ | $6.41 \pm 7.984$ |
| Week 24: MH ( $\mathrm{n}=22,20$ ) | $2.62 \pm 8.730$ | $2.61 \pm 13.149$ |
| Week 28: MH ( $\mathrm{n}=23,19$ ) | $2.84 \pm 9.816$ | $6.06 \pm 7.350$ |

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| Week 36: MH $(\mathrm{n}=21,19)$ | $5.98 \pm 8.111$ | $5.64 \pm 8.988$ |
| :--- | :--- | :--- |
| Week 44: MH $(\mathrm{n}=21,16)$ | $4.11 \pm 8.969$ | $1.14 \pm 11.891$ |
| Week 52: MH $(\mathrm{n}=21,16)$ | $5.73 \pm 7.473$ | $4.25 \pm 11.257$ |

## Change from Baseline in EQ-5D-5L (EuroQol 5D) questionnaire

Description EQ-5D-5L, a self-administered questionnaire assessing health status in adults, is divided into 2 sections. The 1st section addresses 5 dimensions (mobility, self-care, usual activity, pain/discomfort, \& anxiety/depression). Items are rated either "no problem", "slight problems", "moderate problems", "severe problems", or "extreme problems/unable." A composite health index is defined by combining the levels for each dimension. The 2nd section measures self-rated (global) health status via vertically oriented VAS where 100 represents the "best possible health state" \& 0 represents the "worst possible health state." The EQ-5D-5L contains 6 items assessing health status via a single index value or health utility score and allows "weighting" by the patient of health states \& generation of patient utilities. Published weights are available allowing for creation of a single summary health utility score. Scores range from 0 to 1 , with lower scores representing a higher level of dysfunction.

Time Frame $\quad$ Baseline, Weeks 4, 8, 12, 16, 20, 24, 28, 36, 44 \& 52
Analysis The Full Analysis Set (FAS) comprised all patients to whom study treatment had been assigned by randomization and who received at least
Population
Description one dose of randomized study treatment (secukinumab or placebo). The change from baseline at each visit is calculated only for subjects with a value at baseline and the particular visit.

## Secukinumab

Participants received secukinumab at a dose of 300 milligrams ( mg ) as subcutaneous (s.c.) injection at Baseline Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen.

Placebo

Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen.

| Number of Participants Analyzed [units: participants] | 27 | 23 |
| :--- | :---: | :---: |
| Change from Baseline in EQ-5D-5L (EuroQol 5D) questionnaire <br> (units: scores on a scale) | Mean <br> EQ-5D-5L VAS: Week $4(\mathrm{n}=27,23)$ | $\pm$ Standard Deviation |

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| EQ-5D-5L VAS: Week $12(\mathrm{n}=25,20)$ | $4.64 \pm 19.598$ | $3.30 \pm 22.850$ |
| :---: | :---: | :---: |
| EQ-5D-5L VAS: Week 16 ( $\mathrm{n}=25,20$ ) | $7.000 \pm 19.530$ | $4.40 \pm 27.354$ |
| EQ-5D-5L VAS: Week 20 ( $\mathrm{n}=24,20$ ) | $7.88 \pm 19.077$ | $6.30 \pm 25.041$ |
| EQ-5D-5L VAS: Week $24(\mathrm{n}=23,20)$ | $5.39 \pm 17.598$ | $-1.00 \pm 29.902$ |
| EQ-5D-5L VAS: Week $28(\mathrm{n}=23,19)$ | $4.43 \pm 17.840$ | $10.37 \pm 21.670$ |
| WEQ-5D-5L VAS: Week $36(\mathrm{n}=21,19)$ | $6.90 \pm 17.972$ | $5.32 \pm 28.825$ |
| EQ-5D-5L VAS: Week $44(\mathrm{n}=21,16)$ | $6.38 \pm 19.505$ | $12.69 \pm 21.941$ |
| EQ-5D-5L VAS: Week $52(\mathrm{n}=21,16)$ | $11.62 \pm 16.877$ | $10.81 \pm 24.109$ |
| EQ-5D-5L utility index: Week $4(n=27,23)$ | $0.0166 \pm 0.19559$ | $-0.0702 \pm 0.21239$ |
| EQ-5D-5L utility index: Week $8(\mathrm{n}=26,21)$ | $-0.0034 \pm 0.19972$ | $0.0087 \pm 0.9869$ |
| EQ-5D-5L utility index: Week $12(\mathrm{n}=25,20)$ | $0.0016 \pm 0.16236$ | $-0.0122 \pm 0.15686$ |
| EQ-5D-5L utility index: Week $16(\mathrm{n}=25,20)$ | $0.0186 \pm 0.14639$ | $-0.0196 \pm 0.19789$ |
| EQ-5D-5L utility index: Week $20(\mathrm{n}=24,20)$ | $0.0210 \pm 0.13308$ | $0.0221 \pm 0.16759$ |
| EQ-5D-5L utility index: Week $24(\mathrm{n}=23,20)$ | $0.0402 \pm 0.12427$ | $-0.0444 \pm 0.20875$ |
| EQ-5D-5L utility index: Week $28(\mathrm{n}=23,19)$ | $-0.0002 \pm 0.06695$ | $0.0240 \pm 0.13458$ |
| EQ-5D-5L utility index: Week $36(\mathrm{n}=21,19)$ | $0.0063 \pm 0.06432$ | $-0.0155 \pm 0.13186$ |
| EQ-5D-5L utility index: Week $44(\mathrm{n}=21,16)$ | $-0.0119 \pm 0.08525$ | $0.0090 \pm 0.13033$ |
| EQ-5D-5L utility index: Week $52(\mathrm{n}=21,16$ ) | $-0.0076 \pm 0.11997$ | $0.0205 \pm 0.09403$ |

## Change from Baseline in Erythrocyte Sedimentation Rate (ESR)

Description ESR is a laboratory test that provides a non-specific measure of inflammation. This was assessed in order to identify the presence of inflammation, to determine its severity, and to monitor response to treatment. The test assesses the rate at which red blood cells fall in a test tube. Normal range is $0-30 \mathrm{~mm} / \mathrm{hr}$. A higher rate is consistent with inflammation.

Time Frame
Analysis
Population
Description
Baseline, Week 28, Week 52
The Full Analysis Set (FAS) comprised all patients to whom study treatment had been assigned by randomization and who received at least one dose of randomized study treatment (secukinumab or placebo). The change from Baseline at each visit is calculated only for subjects with a value at Baseline and the particular visit.

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Placebo

|  | Secukinum | Place |
| :---: | :---: | :---: |
| Arm/Group Description | Participants received secukinumab at a dose of 300 milligrams ( mg ) as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. | Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. |
| Number of Participants Analyzed [units: participants] | 23 | 18 |
| Change from Baseline in Erythrocyte Sedimentation Rate (ESR) (units: $\mathrm{mm} / \mathrm{hr}$ ) | Mean <br> $\pm$ Standard Deviation | Mean <br> $\pm$ Standard Deviation |
| Week 28 ( $\mathrm{n}=23,18$ ) | $4.043 \pm 16.1934$ | $14.667 \pm 23.9141$ |
| Week $52(\mathrm{n}=21,16$ ) | $-3.286 \pm 10.6167$ | $10.000 \pm 14.8728$ |

## Change from Baseline in C-Reactive Protein (CRP) Level

Description The test for CRP is a laboratory measurement for evaluation of an acute phase reactant of inflammation through the use of an ultrasensitive assay. This was assessed in order to identify the presence of inflammation, to determine its severity, and to monitor response to treatment. A decrease in the level of CRP indicates reduction in inflammation and therefore improvement.

Time Frame
Baseline, Week 28, Week 52
Analysis
Population
Description
The Full Analysis Set (FAS) comprised all patients to whom study treatment had been assigned by randomization and who received at least one dose of randomized study treatment (secukinumab or placebo). The change from Baseline at each visit is calculated only for subjects with a value at Baseline and the particular visit.

## Secukinumab

Participants received secukinumab at a dose of 300 milligrams ( mg ) as
subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks

## Placebo

Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48

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thereafter through to week 48 along with a 26 -week prednisolone tapering regimen.

| Number of Participants Analyzed [units: participants] | 23 | 19 |
| :--- | :---: | :---: |
| Change from Baseline in C-Reactive Protein (CRP) Level <br> (units: $\mathrm{mg} / \mathrm{L}$ ) | Mean <br> Week $28(\mathrm{n}=23,19)$ | $\pm$ Standard Deviation |

Instruction: This information can usually be found in the CSR
Definition: Safety tables for Company Clinical Trial Results template: by system organ class, By preferred term and death/SAE/discontinuations

## Safety Results

## All-Cause Mortality

|  | Secukinumab $N=27$ | Placebo $N=25$ | All Participants $N=52$ |
| :---: | :---: | :---: | :---: |
| Arm/Group Description | Participants received secukinumab at a dose of 300 milligrams (mg) as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with | Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. | All participants who participated in the study. |

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a 26-week prednisolone
tapering regimen.

| Total Number Affected | 1 | 1 | 2 |
| :--- | :---: | :---: | :---: |
| Total Number At Risk | 27 | 25 | 52 |

## Serious Adverse Events by System Organ Class

|  | Secukinumab $N=27$ | $\begin{aligned} & \text { Placebo } \\ & \mathrm{N}=25 \end{aligned}$ | All Participants $N=52$ |
| :---: | :---: | :---: | :---: |
| Arm/Group Description | Participants received secukinumab at a dose of 300 milligrams (mg) as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. | Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 -week prednisolone tapering regimen. | All participants who participated in the study. |
| Total \# Affected by any Serious Adverse Event | 6 | 11 | 17 |
| Total \# at Risk by any Serious Adverse Event | 27 | 25 | 52 |
| Cardiac disorders |  |  |  |
| Atrial fibrillation | 0 (0.00\%) | 1 (4.00\%) | 1 (1.92\%) |
| Atrial tachycardia | 0 (0.00\%) | 1 (4.00\%) | 1 (1.92\%) |
| Cardiac failure | 1 (3.70\%) | 1 (4.00\%) | 2 (3.85\%) |
| Tachyarrhythmia | 1 (3.70\%) | 0 (0.00\%) | 1 (1.92\%) |
| Gastrointestinal disorders |  |  |  |
| Faecaloma | 1 (3.70\%) | 0 (0.00\%) | 1 (1.92\%) |
| Gastrointestinal pain | 0 (0.00\%) | 1 (4.00\%) | 1 (1.92\%) |
| Melaena | 0 (0.00\%) | 1 (4.00\%) | 1 (1.92\%) |

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| Noninfective sialoadenitis | 1 (3.70\%) | 0 (0.00\%) | 1 (1.92\%) |
| :---: | :---: | :---: | :---: |
| General disorders and administration site conditions |  |  |  |
| General physical health deterioration | 0 (0.00\%) | 1 (4.00\%) | 1 (1.92\%) |
| Pyrexia | 1 (3.70\%) | 0 (0.00\%) | 1 (1.92\%) |
| Infections and infestations |  |  |  |
| Arthritis bacterial | 1 (3.70\%) | 0 (0.00\%) | 1 (1.92\%) |
| Erysipelas | 1 (3.70\%) | 0 (0.00\%) | 1 (1.92\%) |
| Urinary tract infection | 0 (0.00\%) | 1 (4.00\%) | 1 (1.92\%) |
| Injury, poisoning and procedural complications |  |  |  |
| Face injury | 1 (3.70\%) | 0 (0.00\%) | 1 (1.92\%) |
| Fall | 1 (3.70\%) | 1 (4.00\%) | 2 (3.85\%) |
| Femur fracture | 0 (0.00\%) | 1 (4.00\%) | 1 (1.92\%) |
| Fibula fracture | 0 (0.00\%) | 1 (4.00\%) | 1 (1.92\%) |
| Pelvic fracture | 1 (3.70\%) | 1 (4.00\%) | 2 (3.85\%) |
| Spinal compression fracture | 0 (0.00\%) | 1 (4.00\%) | 1 (1.92\%) |
| Investigations |  |  |  |
| Inflammatory marker increased | 1 (3.70\%) | 0 (0.00\%) | 1 (1.92\%) |
| Metabolism and nutrition disorders |  |  |  |
| Fluid retention | 1 (3.70\%) | 0 (0.00\%) | 1 (1.92\%) |
| Musculoskeletal and connective tissue disorders |  |  |  |
| Spinal stenosis | 1 (3.70\%) | 1 (4.00\%) | 2 (3.85\%) |
| Neoplasms benign, malignant and unspecified (incl cysts and polyps) |  |  |  |

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| Squamous cell carcinoma of lung | $0(0.00 \%)$ | $1(4.00 \%)$ | $1(1.92 \%)$ |
| :--- | :--- | :--- | :--- |
| Nervous system disorders |  |  |  |
| Cerebrovascular accident | $1(3.70 \%)$ | $1(1.92 \%)$ |  |
| Dizziness | $0(0.00 \%)$ | $1(1.92 \%)$ |  |
| Facial paralysis | $1(3.70 \%)$ | $1(1.92 \%)$ |  |
| Intracranial aneurysm | $0(0.00 \%)$ | $1(1.92 \%)$ |  |
| Neurological symptom | $1(3.70 \%)$ | $1(1.92 \%)$ |  |
| Syncope | $1(3.70 \%)$ | $1(1.92 \%)$ |  |
| Respiratory, thoracic and mediastinal disorders |  | $0(0.00 \%)$ |  |
| Asphyxia | $0(0.00 \%)$ | $0(0.00 \%)$ | $1(1.92 \%)$ |
| Aspiration | $0(0.00 \%)$ | $1(1.92 \%)$ |  |
| Chronic obstructive pulmonary disease | $0(0.00 \%)$ | $1(1.92 \%)$ |  |
| Pulmonary embolism | $1(3.70 \%)$ | $1(4.00 \%)$ |  |
| Vascular disorders |  | $0(0.00 \%)$ | $1(1.92 \%)$ |
| Deep vein thrombosis | $1(3.70 \%)$ |  |  |
| Haematoma | $1(3.70 \%)$ | $1(1.92 \%)$ |  |

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Other Adverse Events by System Organ Class
Frequent Event Reporting Threshold 5\%

|  | Secukinumab $N=27$ | Placebo $\mathrm{N}=25$ | All Participants $\mathrm{N}=52$ |
| :---: | :---: | :---: | :---: |
| Arm/Group Description | Participants received secukinumab at a dose of 300 milligrams $(\mathrm{mg})$ as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26 week prednisolone tapering regimen. | Participants received placebo as subcutaneous (s.c.) injection at Baseline, Week 1,2,3,4 and then every 4 weeks thereafter through to week 48 along with a 26-week prednisolone tapering regimen. | All participants who participated in the study. |
| Total \# Affected by any Other Adverse Event | 25 | 23 | 48 |
| Total \# at Risk by any Other Adverse Event | 27 | 25 | 52 |
| Endocrine disorders |  |  |  |
| Cushingoid | 1 (3.70\%) | 2 (8.00\%) | 3 (5.77\%) |

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Eye disorders

| Glaucoma | $2(7.41 \%)$ | $2(8.00 \%)$ | $4(7.69 \%)$ |
| :--- | :--- | :--- | :--- |
| Vision blurred | $1(3.70 \%)$ | $2(8.00 \%)$ | $3(5.77 \%)$ |
| Gastrointestinal <br> disorders | $2(7.41 \%)$ | $0(0.00 \%)$ | $2(3.85 \%)$ |
| Dental caries | $2(7.41 \%)$ | $2(8.00 \%)$ | $4(7.69 \%)$ |
| Diarrhoea | $0(0.00 \%)$ | $2(8.00 \%)$ | $2(3.85 \%)$ |
| Haemorrhoidal <br> haemorrhage | $0(0.00 \%)$ | $2(8.00 \%)$ | $2(3.85 \%)$ |
| Nausea |  |  |  |

General disorders
and administration
site conditions

| Fatigue | $2(7.41 \%)$ | $1(4.00 \%)$ | $3(5.77 \%)$ |
| :--- | :---: | :---: | :---: |
| Oedema peripheral | $2(7.41 \%)$ | $4(16.00 \%)$ | $6(11.54 \%)$ |
| Infections and <br> infestations | $1(3.70 \%)$ | $2(8.00 \%)$ | $3(5.77 \%)$ |
| Gastroenteritis | $5(18.52 \%)$ | $5(20.00 \%)$ | $10(19.23 \%)$ |
| Nasopharyngitis | $4(14.81 \%)$ | $1(4.00 \%)$ | $5(9.62 \%)$ |
| Oral candidiasis | $2(7.41 \%)$ | $1(4.00 \%)$ | $3(5.77 \%)$ |
| Respiratory tract <br> infection | $2(7.41 \%)$ | $0(0.00 \%)$ | $2(3.85 \%)$ |
| Rhinitis | $2(8.00 \%)$ | $6(11.54 \%)$ |  |
| Urinary tract <br> infection |  |  |  |

Injury, poisoning
and procedural
complications

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| Bone contusion | $2(7.41 \%)$ | $0(0.00 \%)$ | $2(3.85 \%)$ |
| :--- | :--- | :--- | :--- |
| Fall | $2(7.41 \%)$ | $0(0.00 \%)$ | $2(3.85 \%)$ |
| Rib fracture | $2(7.41 \%)$ | $0(0.00 \%)$ | $2(3.85 \%)$ |
| Skin laceration | $1(3.70 \%)$ | $2(8.00 \%)$ | $3(5.77 \%)$ |
| Thoracic vertebral <br> fracture | $0(0.00 \%)$ | $2(8.00 \%)$ | $2(3.85 \%)$ |
| Tooth fracture | $1(3.70 \%)$ | $2(8.00 \%)$ | $3(5.77 \%)$ |

Investigations

| Blood pressure <br> increased | $0(0.00 \%)$ | $2(8.00 \%)$ | $2(3.85 \%)$ |
| :--- | :--- | :--- | :--- |
| C-reactive protein <br> increased | $1(3.70 \%)$ | $2(8.00 \%)$ | $3(5.77 \%)$ |
| Gamma- <br> glutamyltransferase <br> increased | $1(3.70 \%)$ | $2(8.00 \%)$ | $3(5.77 \%)$ |

Metabolism and
nutrition disorders

| nutrition disorders |  |  |  |
| :---: | :--- | :--- | :--- |
| Diabetes mellitus | $1(3.70 \%)$ | $2(8.00 \%)$ | $3(5.77 \%)$ |


| Musculoskeletal <br> and connective <br> tissue disorders |  |  |  |
| :--- | :---: | :---: | :---: |
| Arthralgia | $3(11.11 \%)$ | $3(12.00 \%)$ | $6(11.54 \%)$ |
| Back pain | $0(0.00 \%)$ | $5(20.00 \%)$ | $5(9.62 \%)$ |
| Bursitis | $3(11.11 \%)$ | $1(4.00 \%)$ | $4(7.69 \%)$ |
| Muscle spasms | $4(14.81 \%)$ | $1(4.00 \%)$ | $5(9.62 \%)$ |
| Osteoarthritis | $3(11.11 \%)$ | $2(8.00 \%)$ | $5(9.62 \%)$ |
| Osteoporosis | $2(7.41 \%)$ | $1(4.00 \%)$ | $3(5.77 \%)$ |

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## Nervous system <br> disorders

| Dizziness | $3(11.11 \%)$ | $0(0.00 \%)$ | $3(5.77 \%)$ |
| :--- | :---: | :---: | :---: |
| Headache | $4(14.81 \%)$ | $3(12.00 \%)$ | $7(13.46 \%)$ |
| Polyneuropathy | $2(7.41 \%)$ | $0(0.00 \%)$ | $2(3.85 \%)$ |
| Sciatica | $1(3.70 \%)$ | $2(8.00 \%)$ | $3(5.77 \%)$ |
| Tension headache | $1(3.70 \%)$ | $2(8.00 \%)$ | $3(5.77 \%)$ |

## Skin and <br> subcutaneous <br> tissue disorders

| Alopecia | $2(7.41 \%)$ | $1(4.00 \%)$ | $3(5.77 \%)$ |
| :--- | :--- | :--- | :--- |
| Rash | $2(7.41 \%)$ | $2(8.00 \%)$ | $4(7.69 \%)$ |
| Skin ulcer | $2(7.41 \%)$ | $0(0.00 \%)$ | $2(3.85 \%)$ |

Vascular disorders

| Giant cell arteritis | $1(3.70 \%)$ | $2(8.00 \%)$ | $3(5.77 \%)$ |
| :--- | :---: | :---: | :---: |
| Haematoma | $1(3.70 \%)$ | $3(12.00 \%)$ | $4(7.69 \%)$ |
| Hypertension | $6(22.22 \%)$ | $8(32.00 \%)$ | $14(26.92 \%)$ |

## Conclusion:

- Sustained remission until Week 28 was achieved by a higher proportion of patients in the secukinumab group compared to the placebo group; therefore, the primary endpoint was met.
- The results from the primary endpoint analysis suggest to proceed with the development of secukinumab in this indication as the GO-criteria were satisfied; the observed data indicated that the probability of any effect (RD >0) as well as the probability of a relevant effect (RD $>0.22$ ) were both $>99 \%$.


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- The primary analysis results were confirmed by supportive analyses including a logistic regression analysis that showed statistical significance in favor of secukinumab.
- Secondary efficacy endpoints supported the primary endpoint findings:
- Remission at Week 12 was achieved by a higher proportion of patients in the secukinumab group compared to the placebo group.
- Sustained remission until Week 52 was achieved by a higher proportion of patients in the secukinumab group compared to the placebo group. The median time to GCA flare was not reached in the secukinumab group and was approximately 7 months in the placebo group.
- Co-administered prednisolone $\leq 5 \mathrm{mg} /$ day was taken by a greater percentage of patients in the secukinumab group than the placebo group at Week 28 and Week 52 suggesting tapering down was facilitated more easily in the secukinumab group.
- Disease activity and quality of life data generally indicated better responses to treatment in the secukinumab group compared to the placebo group despite large variances in data.
- Secukinumab was considered safe and well tolerated, and the safety profile observed in this study is in line with the established safety profile of secukinumab in the secukinumab clinical development program to date.


## Date of Clinical Trial Report

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