



Clinical trial results:

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

Due to EudraCT system limitations, which EMA is aware of, data using 999 as data points in this record are not an accurate representation of the clinical trial results. Please use <https://www.novctrd.com/CtrdWeb/home.nov> for complete trial results.

Summary

| | |
|--------------------------|----------------|
| EudraCT number | 2018-002610-12 |
| Trial protocol | DE |
| Global end of trial date | 08 June 2021 |

Results information

| | |
|--------------------------------|--------------|
| Result version number | v1 |
| This version publication date | 19 June 2022 |
| First version publication date | 19 June 2022 |

Trial information

Trial identification

| | |
|-----------------------|---------------|
| Sponsor protocol code | CAIN457ADE11C |
|-----------------------|---------------|

Additional study identifiers

| | |
|------------------------------------|-------------|
| ISRCTN number | - |
| ClinicalTrials.gov id (NCT number) | NCT03765788 |
| WHO universal trial number (UTN) | - |

Notes:

Sponsors

| | |
|------------------------------|--|
| Sponsor organisation name | Novartis Pharma, AG |
| Sponsor organisation address | CH-4002, Basel, Switzerland, |
| Public contact | Clinical Disclosure Office, Novartis Pharma, AG, +41 613241111, novartis.email@novartis.com |
| Scientific contact | Clinical Disclosure Office, Novartis Pharma, AG, +41 613241111, novartis.email@novartis.com |

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:

Results analysis stage

| | |
|--|--------------|
| Analysis stage | Final |
| Date of interim/final analysis | 08 June 2021 |
| Is this the analysis of the primary completion data? | No |
| Global end of trial reached? | Yes |
| Global end of trial date | 08 June 2021 |
| Was the trial ended prematurely? | No |

Notes:

General information about the trial

Main objective of the trial:

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.

- Definition of remission: Absence of flare.

- Definition of sustained remission: Patients without flare until Week 28 and in adherence to the protocol prednisolone taper regimen.

- Definition of flare: Determined by the investigator and defined as the recurrence after remission of signs or symptoms of GCA and/or erythrocyte sedimentation rate (ESR) \geq 30 mm/hr and/or C-reactive protein (CRP) \geq 10 mg/L attributable to GCA.

Protection of trial subjects:

The study was in compliance with the ethical principles derived from the Declaration of Helsinki and the International Conference on Harmonization (ICH) Good Clinical Practice (GCP) guidelines. All the local regulatory requirements pertinent to safety of trial subjects were also followed during the conduct of the trial.

Background therapy: -

Evidence for comparator: -

| | |
|---|-----------------|
| Actual start date of recruitment | 30 January 2019 |
| Long term follow-up planned | No |
| Independent data monitoring committee (IDMC) involvement? | Yes |

Notes:

Population of trial subjects

Subjects enrolled per country

| | |
|--------------------------------------|-------------|
| Country: Number of subjects enrolled | Germany: 52 |
| Worldwide total number of subjects | 52 |
| EEA total number of subjects | 52 |

Notes:

Subjects enrolled per age group

| | |
|---|---|
| In utero | 0 |
| Preterm newborn - gestational age < 37 wk | 0 |
| Newborns (0-27 days) | 0 |

| | |
|--|----|
| Infants and toddlers (28 days-23 months) | 0 |
| Children (2-11 years) | 0 |
| Adolescents (12-17 years) | 0 |
| Adults (18-64 years) | 9 |
| From 65 to 84 years | 42 |
| 85 years and over | 1 |

Subject disposition

Recruitment

Recruitment details:

Participants took part in 11 investigative sites in 1 country.

Pre-assignment

Screening details:

The screening period began once patients had signed the study informed consent. Screening evaluations were performed up to 6 weeks before the beginning of the Treatment period.

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 | Investigator, Subject |

Arms

| | |
|------------------------------|-----|
| Are arms mutually exclusive? | Yes |
|------------------------------|-----|

| | |
|------------------|-------------|
| Arm title | Secukinumab |
|------------------|-------------|

Arm 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.

| | |
|--|--------------|
| Arm type | Experimental |
| Investigational medicinal product name | prednisolone |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Tablet |
| Routes of administration | Oral use |

Dosage and administration details:

Provided as tablets (1 mg, 5 mg, 10 mg, 20 mg tablets) for daily administration as tapered regimen from a dose of 25 mg to 60 mg at Baseline to 1 mg at Week 26 (last dose)

| | |
|--|-------------------|
| Investigational medicinal product name | Secukinumab |
| Investigational medicinal product code | AIN457 |
| Other name | |
| Pharmaceutical forms | Injection |
| Routes of administration | Intramuscular use |

Dosage and administration details:

secukinumab 300 mg (2 injections of 150 mg) provided in 2 x 1.0 mL Prefilled syringe (PFS) weekly from Week 0 to 4 then every 4 weeks from Week 4 to Week 48

| | |
|------------------|---------|
| Arm title | Placebo |
|------------------|---------|

Arm description:

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.

| | |
|--|---------------------|
| Arm type | Placebo |
| Investigational medicinal product name | Secukinumab Placebo |
| Investigational medicinal product code | AIN457 |
| Other name | |
| Pharmaceutical forms | Injection |
| Routes of administration | Intramuscular use |

Dosage and administration details:

Secukinumab placebo 300 mg (2 injections of 150 mg) provided in 2 x 1.0 mL Prefilled syringe (PFS) weekly from Week 0 to 4 then every 4 weeks from Week 4 to Week 48

| | |
|--|--------------|
| Investigational medicinal product name | prednisolone |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Tablet |
| Routes of administration | Oral use |

Dosage and administration details:

Provided as tablets (1 mg, 5 mg, 10 mg, 20 mg tablets) for daily administration as tapered regimen from a dose of 25 mg to 60 mg at Baseline to 1 mg at Week 26 (last dose)

| Number of subjects in period 1 | Secukinumab | Placebo |
|---------------------------------------|-------------|---------|
| Started | 27 | 25 |
| Completed | 22 | 17 |
| Not completed | 5 | 8 |
| Adverse event, serious fatal | - | 1 |
| Physician decision | 2 | 4 |
| Subject decision | 2 | 3 |
| Lost to follow-up | 1 | - |

Baseline characteristics

Reporting groups

| | |
|-----------------------|-------------|
| Reporting group title | Secukinumab |
|-----------------------|-------------|

Reporting 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.

| | |
|-----------------------|---------|
| Reporting group title | Placebo |
|-----------------------|---------|

Reporting group description:

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.

| Reporting group values | Secukinumab | Placebo | Total |
|----------------------------|-------------|---------|-------|
| Number of subjects | 27 | 25 | 52 |
| Age categorical | | | |
| Units: Subjects | | | |
| Adults (18-64 years) | 0 | 9 | 9 |
| From 65-84 years | 26 | 16 | 42 |
| 85 years and over | 1 | 0 | 1 |
| Age Continuous | | | |
| Units: years | | | |
| arithmetic mean | 76.4 | 69.6 | |
| standard deviation | ± 5.31 | ± 8.02 | - |
| Sex: Female, Male | | | |
| Units: participants | | | |
| Female | 17 | 18 | 35 |
| Male | 10 | 7 | 17 |
| Race/Ethnicity, Customized | | | |
| Units: Subjects | | | |
| White | 27 | 25 | 52 |

End points

End points reporting groups

| | |
|--|-------------|
| Reporting group title | Secukinumab |
| Reporting 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. | |
| Reporting group title | Placebo |
| Reporting group description: 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. | |

Primary: Percentage of participants in sustained remission until Week 28

| | |
|---|---|
| End point title | Percentage of participants in sustained remission until Week 28 |
| End point 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 (\geq) 30 millimeters per hour (mm/hr) and/or C-reactive Protein (CRP) (\geq 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. | |
| End point type | Primary |
| End point timeframe: Until week 28 | |

| End point values | Secukinumab | Placebo | | |
|-----------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 27 | 25 | | |
| Units: Participants | 19 | 6 | | |

Statistical analyses

| | |
|---|-----------------------------------|
| Statistical analysis title | Sustained Remission until week 28 |
| Statistical analysis description: Odds Ratio | |
| Comparison groups | Secukinumab v Placebo |

| | |
|---|-----------------|
| Number of subjects included in analysis | 52 |
| Analysis specification | Pre-specified |
| Analysis type | |
| Parameter estimate | Odds ratio (OR) |
| Point estimate | 9.31 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | 3.54 |
| upper limit | 26.29 |

Secondary: Percentage of participants in remission at Week 12

| | |
|---|--|
| End point title | Percentage of participants in remission at Week 12 |
| End point description: | |
| <p>Remission was defined as the absence of flare.</p> <p>Sustained remission was defined as the absence of flare until Week 28 and in adherence to the protocol prednisolone taper Regimen.</p> <p>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 (\geq) 30 millimeters per hour (mm/hr) and/or CRP (\geq10.0 mg/L) attributable to GCA.</p> <p>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.</p> | |
| End point type | Secondary |
| End point timeframe: | |
| Week 12 | |

| End point values | Secukinumab | Placebo | | |
|-----------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 27 | 25 | | |
| Units: Participants | 22 | 12 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Time to first GCA flare after clinical remission

| | |
|--|--|
| End point title | Time to first GCA flare after clinical remission |
| End point description: | |
| <p>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 (\geq) 30 millimeters per hour (mm/hr) and/or CRP (\geq10.0 mg/L) attributable to GCA. Time to first flare after remission referred to time from first day of study treatment until first post-Baseline flare.</p> <p>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</p> | |

treatment phase.

Time to first GCA flare after remission was calculated using Kaplan-Meier plot of time.

| | |
|--------------------------|-----------|
| End point type | Secondary |
| End point timeframe: | |
| Up to Week 52 (included) | |

| End point values | Secukinumab | Placebo | | |
|----------------------------------|------------------|------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 27 | 25 | | |
| Units: days | | | | |
| median (confidence interval 95%) | 999 (999 to 999) | 197.0 (101.0 to 280.0) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Total cumulative prednisolone dose over 28 weeks and 52 weeks

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|-----------------|---|
| End point title | Total cumulative prednisolone dose over 28 weeks and 52 weeks |
|-----------------|---|

End point 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.

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

End point timeframe:

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

| End point values | Secukinumab | Placebo | | |
|--------------------------------------|----------------------|----------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 27 | 25 | | |
| Units: milligrams | | | | |
| arithmetic mean (standard deviation) | | | | |
| Baseline to Week 28 | 2689.70 (± 935.860) | 2693.74 (± 1241.907) | | |
| Baseline to Week 52 | 2841.26 (± 1116.192) | 3375.58 (± 1720.978) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of participants on prednisolone dose ≤ 5mg/day

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|-----------------|---|
| End point title | Percentage of participants on prednisolone dose ≤ 5mg/day |
|-----------------|---|

End point description:

Percentage of participants on co-administered prednisolone treatment ≤ 5mg/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 mg/day prednisolone at Baseline and for patients on 25 to 40 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].

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

End point timeframe:

Week 19, Week 28, Week 52

| End point values | Secukinumab | Placebo | | |
|-----------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 27 | 25 | | |
| Units: Participants | | | | |
| Week 19 (n = 25, 20) | 22 | 10 | | |
| Week 28 (n = 23, 20) | 19 | 9 | | |
| Week 52 (n = 21, 17) | 19 | 13 | | |

Statistical analyses

No statistical analyses for this end point

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

| | |
|-----------------|---|
| End point title | Percentage of participants with GCA who had sustained remission until Week 52 |
|-----------------|---|

End point 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 (\geq) 30 millimeters per hour (mm/hr) and/or CRP (\geq 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.

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

End point timeframe:

Until Week 52

| End point values | Secukinumab | Placebo | | |
|-----------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 27 | 25 | | |
| Units: Participants | 16 | 2 | | |

Statistical analyses

No statistical analyses for this end point

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

| | |
|-----------------|---|
| End point title | Physicians global assessment (PhGA) of disease activity: Change from Baseline Score via visual analogue scale (VAS) |
|-----------------|---|

End point 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.

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

End point timeframe:

Baseline, Weeks 4, 8, 12, 16, 20, 24, 28, 36, 44 & 52

| End point values | Secukinumab | Placebo | | |
|----------------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 27 | 25 | | |
| Units: scores on a scale | | | | |
| arithmetic mean (standard error) | | | | |
| Week 4 (n = 27, 23) | -4.8 (± 14.43) | -3.2 (± 18.45) | | |
| Week 8 (n = 26, 21) | -5.8 (± 12.77) | 2.1 (± 18.94) | | |
| Week 12 (n = 25, 20) | -3.4 (± 21.93) | -3.1 (± 10.81) | | |
| Week 16 (n = 25, 20) | -4.1 (± 15.62) | 0.7 (± 13.97) | | |
| Week 20 (n = 24, 20) | -6.9 (± 14.78) | -1.5 (± 14.32) | | |
| Week 24 (n = 23, 20) | -4.3 (± 15.92) | 2.2 (± 17.22) | | |
| Week 28 (23, 19) | -5.4 (± 15.61) | 3.9 (± 21.47) | | |
| Week 36 (21, 19) | -8.7 (± 18.45) | 0.7 (± 17.45) | | |
| Week 44 (n = 21, 16) | -5.5 (± 16.87) | 1.1 (± 15.20) | | |
| Week 52 (n = 21, 16) | -9.5 (± 16.72) | 4.0 (± 21.24) | | |

Statistical analyses

No statistical analyses for this end point

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

| | |
|-----------------|--|
| End point title | Patients global assessment (PGA) of disease activity: Change from Baseline via visual analogue scale (VAS) |
|-----------------|--|

End point 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.

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

End point timeframe:

Baseline, Weeks 4, 8, 12, 16, 20, 24, 28, 36, 44 & 52

| End point values | Secukinumab | Placebo | | |
|--------------------------------------|------------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 27 | 25 | | |
| Units: scores on a scale | | | | |
| arithmetic mean (standard deviation) | | | | |
| Week 4 (n = 27, 23) | -15.8 (± 28.17) | -0.5 (± 23.58) | | |
| Week 8 (n = 26, 21) | -15.8 (± 27.61) | -10.8 (± 27.64) | | |
| Week 12 (n = 25, 20) | -8.0 (± 29.43) | -11.9 (± 31.46) | | |
| Week 16 (n = 25, 20) | -18.6 (± 19.39) | -8.8 (± 31.43) | | |
| Week 20 (n = 24, 20) | -19.18 (± 30.68) | -6.9 (± 31.94) | | |
| Week 24 (n = 23, 20) | -14.9 (± 28.84) | -7.0 (± 30.61) | | |
| Week 28 (n = 23, 19) | -14.4 (± 25.46) | -8.0 (± 31.31) | | |
| Week 36 (n = 21, 19) | -20.9 (± 22.31) | -8.6 (± 29.90) | | |
| Week 44 (n = 21, 16) | -21.7 (± 27.35) | -9.4 (± 30.58) | | |
| Week 52 (n = 21, 16) | -19.2 (± 27.35) | -15.9 (± 24.04) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Change from Baseline in FACIT-Fatigue scale

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|-----------------|---|
| End point title | Change from Baseline in FACIT-Fatigue scale |
|-----------------|---|

End point 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).

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

End point timeframe:

Baseline, Weeks 4, 8, 12, 16, 20, 24, 28, 36, 44 & 52

| End point values | Secukinumab | Placebo | | |
|--------------------------------------|-----------------|------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 27 | 25 | | |
| Units: scores on a scale | | | | |
| arithmetic mean (standard deviation) | | | | |
| Week 4 (n = 27, 23) | 2.11 (± 9.613) | -0.96 (± 7.358) | | |
| Week 8 (n = 26, 21) | 2.19 (± 10.190) | 0.81 (± 7.498) | | |
| Week 12 (n = 25, 20) | 0.96 (± 11.175) | -0.25 (± 10.047) | | |
| Week 16 (n = 25, 20) | 2.12 (± 8.876) | -0.36 (± 8.884) | | |
| Week 20 (n = 24, 20) | 3.42 (± 8.617) | 0.05 (± 10.318) | | |
| Week 24 (n = 23, 20) | 2.91 (± 10.409) | -3.10 (± 11.281) | | |
| Week 28 (n = 23, 19) | 3.61 (± 11.044) | 0.42 (± 9.203) | | |
| Week 36 (n = 21, 19) | 3.90 (± 7.245) | 1.84 (± 8.719) | | |
| Week 44 (n = 21, 16) | 2.67 (± 5.986) | 0.31 (± 10.928) | | |
| Week 52 (n = 21, 16) | 3.19 (± 7.033) | 0.19 (± 8.848) | | |

Statistical analyses

No statistical analyses for this end point

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

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|---|--|
| End point title | Change from Baseline in Short-Form (SF)-36 questionnaire |
| End point description: | |
| <p>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. 2 overall summary scores, the Physical Component Summary (PCS) and the Mental Component Summary (MCS) also can be computed. The higher the score (change from baseline) the more favorable the outcome. The values were evaluated as follows: -SF-36 domain scores: SF-36 domain score responders: Type I responders (improvement of ≥ 5 points in ≥ 6 domains); Type II responders (improvement of ≥ 10 points in ≥ 3 domains) -SF-36 PCS and MCS scores SF-36 PCS and MCS score responders: Type I responders (improvement of ≥ 2.5 points) Type II responders (improvement of ≥ 5 points)</p> | |
| End point type | Secondary |
| End point timeframe: | |
| Baseline, Weeks 4, 8, 12, 16, 20, 24, 28, 36, 44 & 52 | |

| End point values | Secukinumab | Placebo | | |
|--|------------------|------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 27 | 25 | | |
| Units: scores on a scale | | | | |
| arithmetic mean (standard deviation) | | | | |
| Week 4: Physical Functioning (PF) (n = 27, 23) | 44.36 (± 11.226) | 43.98 (± 10.159) | | |
| Week 8: PF (n = 26, 21) | -0.44 (± 8.849) | 0.18 (± 4.987) | | |
| Week 12: PF (n = 25, 20) | 0.38 (± 6.322) | -0.38 (± 8.750) | | |
| Week 16: PF (n = 25, 20) | -0.00 (± 8.646) | -0.86 (± 6.814) | | |
| Week 20: PF (n = 24, 20) | 0.80 (± 8.098) | -0.10 (± 6.495) | | |
| Week 24: PF (n = 22, 20) | 0.52 (± 5.702) | -2.11 (± 8.667) | | |
| Week 28: PF (n = 23, 19) | 1.25 (± 5.276) | -0.40 (± 6.460) | | |
| Week 36: PF (n = 21, 19) | 1.37 (± 5.778) | -1.31 (± 6.631) | | |
| Week 44: PF (n = 21, 16) | 1.00 (± 6.674) | -0.36 (± 8.065) | | |
| Week 52: PF (n = 21, 16) | 2.46 (± 4.770) | 0.12 (± 5.696) | | |
| Week 4: Role-Physical (R-P) (n = 27, 23) | 3.49 (± 7.886) | 0.49 (± 10.616) | | |
| Week 8: R-P (n = 26, 21) | 3.80 (± 9.628) | -0.75 (± 10.515) | | |
| Week 12: R-P (n = 25, 20) | 3.32 (± 9.3301) | 1.01 (± 9.539) | | |
| Week 16: R-P (n = 25, 20) | 4.58 (± 8.947) | -1.12 (± 8.847) | | |
| Week 20: R-P (n = 24, 20) | 4.40 (± 9.538) | -0.45 (± 8.163) | | |
| Week 24: R-P (n = 22, 20) | 3.37 (± 7.458) | -0.00 (± 10.094) | | |
| Week 28: R-P (n = 23, 19) | 5.96 (± 10.034) | 1.77 (± 8.553) | | |
| Week 36: R-P (n = 21, 19) | 5.99 (± 6.444) | 0.24 (± 10.121) | | |
| Week 44: R-P (n = 21, 16) | 5.13 (± 6.515) | 0.70 (± 11.262) | | |
| Week 52: R-P (n = 21, 16) | 6.20 (± 6.659) | 1.40 (± 9.126) | | |
| Week 4: Bodily Pain (BP) (n = 27, 23) | 8.03 (± 13.272) | 7.68 (± 11.235) | | |
| Week 8: BP (n = 26, 21) | 5.80 (± 14.475) | 9.68 (± 10.485) | | |
| Week 12: BP (n = 25, 20) | 6.92 (± 13.426) | 6.84 (± 11.674) | | |
| Week 16: BP (n = 25, 20) | 7.69 (± 14.841) | 4.50 (± 13.560) | | |
| Week 20: BP (n = 24, 20) | 6.10 (± 14.072) | 8.63 (± 12.457) | | |
| Week 24: BP (n = 22, 20) | 5.97 (± 12.689) | 3.93 (± 11.952) | | |
| Week 28: BP (n = 23, 19) | 6.47 (± 12.643) | 6.32 (± 13.149) | | |
| Week 36: BP (n = 21, 19) | 7.20 (± 13.724) | 7.81 (± 10.794) | | |

| | | | | |
|--|------------------|------------------|--|--|
| Week 44: BP (n = 21, 16) | 8.01 (± 15.378) | 9.00 (± 7.910) | | |
| Week 52: BP (n = 21, 16) | 5.49 (± 12.328) | 8.39 (± 11.866) | | |
| Week 4: General Health (GH) (n = 27, 23) | 3.49 (± 9.207) | 0.23 (± 6.761) | | |
| Week 8: GH (n = 26, 21) | 2.74 (± 8.119) | 0.18 (± 6.758) | | |
| Week 12: GH (n = 25, 20) | 2.22 (± 7.383) | 0.62 (± 8.158) | | |
| Week 16: GH (n = 25, 20) | 2.28 (± 8.235) | -0.74 (± 7.858) | | |
| Week 20: GH (n = 24, 20) | 4.50 (± 6.774) | -0.38 (± 7.933) | | |
| Week 24: GH (n = 22, 20) | 2.85 (± 7.149) | -0.19 (± 9.031) | | |
| Week 28: GH (n = 23, 19) | 3.53 (± 7.285) | 1.18 (± 7.837) | | |
| Week 36: GH (n = 21, 19) | 3.42 (± 6.680) | -0.47 (± 7.833) | | |
| Week 44: GH (n = 21, 16) | 1.02 (± 8.127) | -0.30 (± 9.597) | | |
| Week 52: GH (n = 21, 16) | 3.03 (± 6.733) | 0.15 (± 10.277) | | |
| Week 4: Vitality (n = 27, 23) | 4.07 (± 8.607) | -1.42 (± 7.699) | | |
| Week 8: Vitality (n = 26, 21) | 2.17 (± 7.952) | 0.71 (± 8.185) | | |
| Week 12: Vitality (n = 25, 20) | 3.57 (± 7.477) | -0.30 (± 9.241) | | |
| Week 16: Vitality (n = 25, 20) | 4.28 (± 7.431) | -0.45 (± 7.847) | | |
| Week 20: Vitality (n = 24, 20) | 4.70 (± 8.445) | 0.45 (± 9.652) | | |
| Week 24: Vitality (n = 22, 20) | 3.78 (± 7.112) | -1.93 (± 11.697) | | |
| Week 28: Vitality (n = 23, 19) | 6.20 (± 7.489) | 0.16 (± 6.679) | | |
| Week 36: Vitality (n = 21, 19) | 7.07 (± 7.060) | 1.41 (± 5.635) | | |
| Week 44: Vitality (n = 21, 16) | 6.08 (± 8.375) | -0.93 (± 12.497) | | |
| Week 52: Vitality (n = 21, 16) | 7.21 (± 8.690) | 0.37 (± 11.474) | | |
| Week 4: Social Functioning (SF) (n = 27, 23) | 3.71 (± 7.939) | 1.74 (± 7.499) | | |
| Week 8: SF (n = 26, 21) | 4.82 (± 8.327) | 2.63 (± 9.979) | | |
| Week 12: SF (n = 25, 20) | 4.01 (± 9.154) | 1.76 (± 7.325) | | |
| Week 16: SF (n = 25, 20) | 5.21 (± 11.069) | 0.75 (± 7.325) | | |
| Week 20: SF (n = 24, 20) | 4.81 (± 10.080) | 3.51 (± 8.150) | | |
| Week 24: SF (n = 22, 20) | 4.56 (± 8.602) | 0.00 (± 10.912) | | |
| Week 28: SF (n = 23, 19) | 3.49 (± 8.476) | 3.17 (± 9.631) | | |
| Week 36: SF (n = 21, 19) | 7.16 (± 10.703) | 5.01 (± 7.285) | | |
| Week 44: SF (n = 21, 16) | 6.45 (± 8.988) | 0.63 (± 11.561) | | |
| Week 52: SF (n = 21, 16) | 7.16 (± 8.621) | 2.82 (± 9.681) | | |
| Week 4: Role-Emotional (RE) (n = 27, 23) | -0.77 (± 12.454) | 3.48 (± 12.985) | | |
| Week 8: RE (n = 26, 21) | 3.08 (± 11.457) | 1.99 (± 13.239) | | |
| Week 12: RE (n = 25, 20) | -0.42 (± 12.076) | 0.52 (± 13.188) | | |

| | | | | |
|---|-----------------|------------------|--|--|
| Week 16: RE (n = 25, 20) | 3.76 (± 10.586) | -0.00 (± 11.465) | | |
| Week 20: RE (n = 24, 20) | 3.48 (± 11.058) | 0.35 (± 11.569) | | |
| Week 24: RE (n = 22, 20) | 2.85 (± 11.753) | -1.22 (± 16.025) | | |
| Week 28: RE (n = 23, 19) | 3.63 (± 11.853) | 1.10 (± 11.725) | | |
| Week 36: RE (n = 21, 19) | 5.47 (± 10.066) | 0.73 (± 16.518) | | |
| Week 44: RE (n = 21, 16) | 4.15 (± 12.293) | 3.26 (± 16.354) | | |
| Week 52: RE (n = 21, 16) | 6.14 (± 11.385) | 0.43 (± 19.234) | | |
| Week 4: Mental Health (MH) (n = 27, 23) | 3.0 (± 8.514) | 0.57 (± 8.420) | | |
| Week 8: MH (n = 26, 21) | 2.82 (± 10.643) | 1.49 (± 6.950) | | |
| Week 12: MH (n = 25, 20) | 3.14 (± 10.786) | 4.45 (± 7.690) | | |
| Week 16: MH (n = 25, 20) | 4.29 (± 8.337) | 5.36 (± 6.379) | | |
| Week 20: MH (n = 24, 20) | 3.49 (± 10.926) | 6.41 (± 7.984) | | |
| Week 24: MH (n = 22, 20) | 2.62 (± 8.730) | 2.61 (± 13.149) | | |
| Week 28: MH (n = 23, 19) | 2.84 (± 9.816) | 6.06 (± 7.350) | | |
| Week 36: MH (n = 21, 19) | 5.98 (± 8.111) | 5.64 (± 8.988) | | |
| Week 44: MH (n = 21, 16) | 4.11 (± 8.969) | 1.14 (± 11.891) | | |
| Week 52: MH (n = 21, 16) | 5.73 (± 7.473) | 4.25 (± 11.257) | | |

Statistical analyses

No statistical analyses for this end point

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

| | |
|-----------------|---|
| End point title | Change from Baseline in EQ-5D-5L (EuroQol 5D) questionnaire |
|-----------------|---|

End point description:

Patient Reported Outcome: The EQ-5D-5L is a widely used, self-administered questionnaire designed to assess health status in adults. The measure is divided into 2 distinct sections. The 1st section includes 1 item addressing each of 5 dimensions (mobility, self-care, usual activity, pain/discomfort, and anxiety/depression). Patients rate each of these items either "no problem", "slight problems", "moderate problems", "severe problems", or "extreme problems/unable." A composite health index is then defined by combining the levels for each dimension. The 2nd section of the questionnaire measures self-rated (global) health status utilizing a vertically oriented VAS where 100 represents the "best possible health state" and 0 represents the "worst possible health state." The higher the score, the more favorable the outcome. Respondents were asked to rate their current health by placing a mark along this continuum.

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

End point timeframe:

Baseline, Weeks 4, 8, 12, 16, 20, 24, 28, 36, 44 & 52

| End point values | Secukinumab | Placebo | | |
|--------------------------------------|------------------|------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 27 | 25 | | |
| Units: scores on a scale | | | | |
| arithmetic mean (standard deviation) | | | | |
| Week 4 (n = 27, 23) | 11.26 (± 16.819) | 1.87 (± 21.467) | | |
| Week 8 (n = 26, 21) | 5.58 (± 16.650) | 5.52 (± 29.646) | | |
| Week 12 (n = 25, 20) | 4.64 (± 19.598) | 3.30 (± 22.850) | | |
| Week 16 (n = 25, 20) | 7.000 (± 19.530) | 4.40 (± 27.354) | | |
| Week 20 (n = 24, 20) | 7.88 (± 19.077) | 6.30 (± 25.041) | | |
| Week 24 (n = 23, 20) | 6.39 (± 17.598) | -1.00 (± 29.902) | | |
| Week 28 (n = 23, 19) | 4.43 (± 17.840) | 10.37 (± 21.670) | | |
| Week 36 (n = 21, 19) | 6.90 (± 17.972) | 5.32 (± 28.825) | | |
| Week 44 (n = 21, 16) | 6.38 (± 19.505) | 12.69 (± 21.941) | | |
| Week 52 (n = 21, 16) | 11.62 (± 16.877) | 10.81 (± 24.109) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Change from Baseline in Erythrocyte Sedimentation Rate (ESR)

| | |
|-----------------|--|
| End point title | Change from Baseline in Erythrocyte Sedimentation Rate (ESR) |
|-----------------|--|

End point 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 mm/hr. A higher rate is consistent with inflammation.

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

End point timeframe:

Baseline, Week 28, Week 52

| End point values | Secukinumab | Placebo | | |
|--------------------------------------|--------------------|--------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 27 | 25 | | |
| Units: mm/hr | | | | |
| arithmetic mean (standard deviation) | | | | |
| Week 28 (n = 23, 18) | 4.043 (± 16.1934) | 14.667 (± 23.9141) | | |
| Week 52 (n = 21, 16) | -3.286 (± 10.6167) | 10.000 (± 14.8728) | | |

Statistical analyses

No statistical analyses for this end point

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

| | |
|-----------------|--|
| End point title | Change from Baseline in C-Reactive Protein (CRP) Level |
|-----------------|--|

End point 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.

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

End point timeframe:

Baseline, Week 28, Week 52

| End point values | Secukinumab | Placebo | | |
|--------------------------------------|-------------------|-------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 27 | 25 | | |
| Units: mg/L | | | | |
| arithmetic mean (standard deviation) | | | | |
| Week 28 (n = 23, 19) | 4.426 (± 9.6836) | 5.216 (± 8.9820) | | |
| Week 52 (n = 21, 16) | -1.433 (± 8.7909) | 4.650 (± 14.3691) | | |

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Adverse Events were reported from first dose of study treatment and co-administered Prednisolone treatment until end of treatment (48 weeks) plus 4 weeks (52 weeks).

Adverse event reporting additional description:

Consistent with EudraCT disclosure specifications, Novartis has reported under the Serious adverse events field "number of deaths resulting from adverse events" all those deaths, resulting from serious adverse events that are deemed to be causally related to treatment by the investigator.

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

Dictionary used

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

| | |
|--------------------|------|
| Dictionary version | 24.0 |
|--------------------|------|

Reporting groups

| | |
|-----------------------|-------------|
| Reporting group title | Secukinumab |
|-----------------------|-------------|

Reporting group description:

Secukinumab

| | |
|-----------------------|--------------|
| Reporting group title | All subjects |
|-----------------------|--------------|

Reporting group description:

All subjects

| | |
|-----------------------|---------|
| Reporting group title | Placebo |
|-----------------------|---------|

Reporting group description:

Placebo

| Serious adverse events | Secukinumab | All subjects | Placebo |
|---|-----------------|------------------|------------------|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 6 / 27 (22.22%) | 17 / 52 (32.69%) | 11 / 25 (44.00%) |
| number of deaths (all causes) | 1 | 2 | 1 |
| number of deaths resulting from adverse events | 1 | 2 | 1 |
| Investigations | | | |
| Inflammatory marker increased | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 1 / 1 | 1 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Neoplasms benign, malignant and unspecified (incl cysts and polyps) | | | |
| Squamous cell carcinoma of lung | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Injury, poisoning and procedural complications | | | |

| | | | |
|---|----------------|----------------|----------------|
| Face injury | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Fall | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 2 / 52 (3.85%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 2 | 0 / 1 |
| deaths causally related to treatment / all | 1 / 1 | 1 / 1 | 0 / 0 |
| Femur fracture | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Fibula fracture | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Pelvic fracture | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 2 / 52 (3.85%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 2 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Spinal compression fracture | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Vascular disorders | | | |
| Deep vein thrombosis | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Haematoma | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Cardiac disorders | | | |

| | | | |
|---|----------------|----------------|----------------|
| Atrial fibrillation | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Atrial tachycardia | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Cardiac failure | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 2 / 52 (3.85%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 2 | 0 / 4 | 0 / 2 |
| deaths causally related to treatment / all | 1 / 1 | 1 / 1 | 0 / 0 |
| Tachyarrhythmia | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Nervous system disorders | | | |
| Cerebrovascular accident | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Dizziness | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 1 / 1 | 1 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Facial paralysis | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Intracranial aneurysm | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Neurological symptom | | | |

| | | | |
|--|----------------|----------------|----------------|
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Syncope | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| General disorders and administration site conditions | | | |
| General physical health deterioration | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Pyrexia | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Gastrointestinal disorders | | | |
| Faecaloma | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Gastrointestinal pain | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Melaena | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 1 / 1 | 1 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Noninfective sialoadenitis | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |

| | | | |
|---|----------------|----------------|----------------|
| Respiratory, thoracic and mediastinal disorders | | | |
| Asphyxia | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 1 / 1 | 1 / 1 |
| Aspiration | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 1 / 1 | 1 / 1 |
| Chronic obstructive pulmonary disease | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Pulmonary embolism | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Musculoskeletal and connective tissue disorders | | | |
| Spinal stenosis | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 2 / 52 (3.85%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 2 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 1 / 1 | 1 / 1 |
| Infections and infestations | | | |
| Arthritis bacterial | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 1 / 1 | 1 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Erysipelas | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 1 / 1 | 1 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Urinary tract infection | | | |

| | | | |
|---|----------------|----------------|----------------|
| subjects affected / exposed | 0 / 27 (0.00%) | 1 / 52 (1.92%) | 1 / 25 (4.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Metabolism and nutrition disorders | | | |
| Fluid retention | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 1 / 52 (1.92%) | 0 / 25 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |

Frequency threshold for reporting non-serious adverse events: 5 %

| Non-serious adverse events | Secukinumab | All subjects | Placebo |
|---|------------------|------------------|------------------|
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 25 / 27 (92.59%) | 48 / 52 (92.31%) | 23 / 25 (92.00%) |
| Investigations | | | |
| Blood pressure increased | | | |
| subjects affected / exposed | 0 / 27 (0.00%) | 2 / 52 (3.85%) | 2 / 25 (8.00%) |
| occurrences (all) | 0 | 2 | 2 |
| Gamma-glutamyltransferase increased | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 3 / 52 (5.77%) | 2 / 25 (8.00%) |
| occurrences (all) | 1 | 3 | 2 |
| C-reactive protein increased | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 3 / 52 (5.77%) | 2 / 25 (8.00%) |
| occurrences (all) | 1 | 3 | 2 |
| Injury, poisoning and procedural complications | | | |
| Bone contusion | | | |
| subjects affected / exposed | 2 / 27 (7.41%) | 2 / 52 (3.85%) | 0 / 25 (0.00%) |
| occurrences (all) | 2 | 2 | 0 |
| Rib fracture | | | |
| subjects affected / exposed | 2 / 27 (7.41%) | 2 / 52 (3.85%) | 0 / 25 (0.00%) |
| occurrences (all) | 2 | 2 | 0 |
| Fall | | | |
| subjects affected / exposed | 2 / 27 (7.41%) | 2 / 52 (3.85%) | 0 / 25 (0.00%) |
| occurrences (all) | 3 | 3 | 0 |
| Skin laceration | | | |

| | | | |
|---|-----------------------|------------------------|----------------------|
| subjects affected / exposed occurrences (all) | 1 / 27 (3.70%) 1 | 3 / 52 (5.77%) 4 | 2 / 25 (8.00%) 3 |
| Thoracic vertebral fracture subjects affected / exposed occurrences (all) | 0 / 27 (0.00%) 0 | 2 / 52 (3.85%) 2 | 2 / 25 (8.00%) 2 |
| Tooth fracture subjects affected / exposed occurrences (all) | 1 / 27 (3.70%) 1 | 3 / 52 (5.77%) 3 | 2 / 25 (8.00%) 2 |
| Vascular disorders | | | |
| Haematoma subjects affected / exposed occurrences (all) | 1 / 27 (3.70%) 1 | 4 / 52 (7.69%) 4 | 3 / 25 (12.00%) 3 |
| Giant cell arteritis subjects affected / exposed occurrences (all) | 1 / 27 (3.70%) 1 | 3 / 52 (5.77%) 3 | 2 / 25 (8.00%) 2 |
| Hypertension subjects affected / exposed occurrences (all) | 6 / 27 (22.22%) 6 | 14 / 52 (26.92%) 15 | 8 / 25 (32.00%) 9 |
| Nervous system disorders | | | |
| Dizziness subjects affected / exposed occurrences (all) | 3 / 27 (11.11%) 7 | 3 / 52 (5.77%) 7 | 0 / 25 (0.00%) 0 |
| Headache subjects affected / exposed occurrences (all) | 4 / 27 (14.81%) 10 | 7 / 52 (13.46%) 13 | 3 / 25 (12.00%) 3 |
| Polyneuropathy subjects affected / exposed occurrences (all) | 2 / 27 (7.41%) 3 | 2 / 52 (3.85%) 3 | 0 / 25 (0.00%) 0 |
| Sciatica subjects affected / exposed occurrences (all) | 1 / 27 (3.70%) 1 | 3 / 52 (5.77%) 3 | 2 / 25 (8.00%) 2 |
| Tension headache subjects affected / exposed occurrences (all) | 1 / 27 (3.70%) 1 | 3 / 52 (5.77%) 3 | 2 / 25 (8.00%) 2 |
| General disorders and administration site conditions | | | |

| | | | |
|---|---------------------|----------------------|----------------------|
| Fatigue subjects affected / exposed occurrences (all) | 2 / 27 (7.41%) 2 | 3 / 52 (5.77%) 3 | 1 / 25 (4.00%) 1 |
| Oedema peripheral subjects affected / exposed occurrences (all) | 2 / 27 (7.41%) 2 | 6 / 52 (11.54%) 6 | 4 / 25 (16.00%) 4 |
| Eye disorders | | | |
| Glaucoma subjects affected / exposed occurrences (all) | 2 / 27 (7.41%) 2 | 4 / 52 (7.69%) 4 | 2 / 25 (8.00%) 2 |
| Vision blurred subjects affected / exposed occurrences (all) | 1 / 27 (3.70%) 1 | 3 / 52 (5.77%) 3 | 2 / 25 (8.00%) 2 |
| Gastrointestinal disorders | | | |
| Dental caries subjects affected / exposed occurrences (all) | 2 / 27 (7.41%) 2 | 2 / 52 (3.85%) 2 | 0 / 25 (0.00%) 0 |
| Diarrhoea subjects affected / exposed occurrences (all) | 2 / 27 (7.41%) 2 | 4 / 52 (7.69%) 4 | 2 / 25 (8.00%) 2 |
| Haemorrhoidal haemorrhage subjects affected / exposed occurrences (all) | 0 / 27 (0.00%) 0 | 2 / 52 (3.85%) 2 | 2 / 25 (8.00%) 2 |
| Nausea subjects affected / exposed occurrences (all) | 0 / 27 (0.00%) 0 | 2 / 52 (3.85%) 2 | 2 / 25 (8.00%) 2 |
| Skin and subcutaneous tissue disorders | | | |
| Alopecia subjects affected / exposed occurrences (all) | 2 / 27 (7.41%) 2 | 3 / 52 (5.77%) 3 | 1 / 25 (4.00%) 1 |
| Skin ulcer subjects affected / exposed occurrences (all) | 2 / 27 (7.41%) 2 | 2 / 52 (3.85%) 2 | 0 / 25 (0.00%) 0 |
| Rash subjects affected / exposed occurrences (all) | 2 / 27 (7.41%) 3 | 4 / 52 (7.69%) 5 | 2 / 25 (8.00%) 2 |
| Endocrine disorders | | | |

| | | | |
|---|----------------------|------------------------|----------------------|
| Cushingoid subjects affected / exposed occurrences (all) | 1 / 27 (3.70%) 1 | 3 / 52 (5.77%) 3 | 2 / 25 (8.00%) 2 |
| Musculoskeletal and connective tissue disorders | | | |
| Arthralgia subjects affected / exposed occurrences (all) | 3 / 27 (11.11%) 4 | 6 / 52 (11.54%) 7 | 3 / 25 (12.00%) 3 |
| Back pain subjects affected / exposed occurrences (all) | 0 / 27 (0.00%) 0 | 5 / 52 (9.62%) 5 | 5 / 25 (20.00%) 5 |
| Bursitis subjects affected / exposed occurrences (all) | 3 / 27 (11.11%) 3 | 4 / 52 (7.69%) 4 | 1 / 25 (4.00%) 1 |
| Muscle spasms subjects affected / exposed occurrences (all) | 4 / 27 (14.81%) 4 | 5 / 52 (9.62%) 5 | 1 / 25 (4.00%) 1 |
| Osteoporosis subjects affected / exposed occurrences (all) | 2 / 27 (7.41%) 2 | 3 / 52 (5.77%) 3 | 1 / 25 (4.00%) 1 |
| Osteoarthritis subjects affected / exposed occurrences (all) | 3 / 27 (11.11%) 3 | 5 / 52 (9.62%) 6 | 2 / 25 (8.00%) 3 |
| Infections and infestations | | | |
| Gastroenteritis subjects affected / exposed occurrences (all) | 1 / 27 (3.70%) 1 | 3 / 52 (5.77%) 3 | 2 / 25 (8.00%) 2 |
| Nasopharyngitis subjects affected / exposed occurrences (all) | 5 / 27 (18.52%) 5 | 10 / 52 (19.23%) 10 | 5 / 25 (20.00%) 5 |
| Oral candidiasis subjects affected / exposed occurrences (all) | 4 / 27 (14.81%) 4 | 5 / 52 (9.62%) 5 | 1 / 25 (4.00%) 1 |
| Respiratory tract infection subjects affected / exposed occurrences (all) | 2 / 27 (7.41%) 2 | 3 / 52 (5.77%) 3 | 1 / 25 (4.00%) 1 |
| Rhinitis | | | |

| | | | |
|------------------------------------|-----------------|-----------------|----------------|
| subjects affected / exposed | 2 / 27 (7.41%) | 2 / 52 (3.85%) | 0 / 25 (0.00%) |
| occurrences (all) | 2 | 2 | 0 |
| Urinary tract infection | | | |
| subjects affected / exposed | 4 / 27 (14.81%) | 6 / 52 (11.54%) | 2 / 25 (8.00%) |
| occurrences (all) | 6 | 8 | 2 |
| Metabolism and nutrition disorders | | | |
| Diabetes mellitus | | | |
| subjects affected / exposed | 1 / 27 (3.70%) | 3 / 52 (5.77%) | 2 / 25 (8.00%) |
| occurrences (all) | 1 | 3 | 2 |

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

| Date | Amendment |
|------------------|--|
| 15 March 2019 | Accepted patient ultrasound/MR/images for the corresponding sub-studies taken up to 6 weeks prior to Randomization. Added measurement of HbA1c to assess all relevant domains of the GTI. questionnaire. |
| 13 May 2019 | Added extension phase to assess the effect of secukinumab after completed steroid tapering. Added an additional secondary endpoint to assess the proportion of patients receiving prednisolone ≤ 5 mg/day at Week 19, Week 28 and Week 52. |
| 29 November 2019 | Added an additional imaging assessment in Week 50 (ultrasound and/or MRA). Shifted the GTI endpoint to the exploratory endpoint section. |

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

Due to EudraCT system limitations, which EMA is aware of, data using 999 as data points in this record are not an accurate representation of the clinical trial results. Please use <https://www.novctrd.com/CtrdWeb/home.nov> for complete trial results.

Notes: