



Clinical trial results:

A Multicenter, Phase 3, Randomized, Double-Blind, Placebo-Controlled Study Evaluating The Efficacy and Safety of Bimekizumab in The Treatment of Subjects With Active Psoriatic Arthritis

Summary

| | |
|--------------------------|------------------|
| EudraCT number | 2017-002804-29 |
| Trial protocol | DE GB CZ IT HU |
| Global end of trial date | 14 February 2022 |

Results information

| | |
|--------------------------------|------------------|
| Result version number | v1 (current) |
| This version publication date | 26 February 2023 |
| First version publication date | 26 February 2023 |

Trial information

Trial identification

| | |
|-----------------------|--------|
| Sponsor protocol code | PA0011 |
|-----------------------|--------|

Additional study identifiers

| | |
|------------------------------------|-------------|
| ISRCTN number | - |
| ClinicalTrials.gov id (NCT number) | NCT03896581 |
| WHO universal trial number (UTN) | - |

Notes:

Sponsors

| | |
|------------------------------|---|
| Sponsor organisation name | UCB Biopharma SRL |
| Sponsor organisation address | Allée de la Recherche 60, Brussels, Belgium, |
| Public contact | Clin Trial Reg & Results Disclosure, UCB BIOSCIENCES GmbH, clinicaltrials@ucb.com |
| Scientific contact | Clin Trial Reg & Results Disclosure, UCB BIOSCIENCES GmbH, clinicaltrials@ucb.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 | 04 March 2022 |
| Is this the analysis of the primary completion data? | Yes |
| Primary completion date | 08 December 2021 |
| Global end of trial reached? | Yes |
| Global end of trial date | 14 February 2022 |
| Was the trial ended prematurely? | No |

Notes:

General information about the trial

Main objective of the trial:

Demonstrate the clinical efficacy of bimekizumab administered subcutaneously compared with placebo in the treatment of tumor necrosis factor alpha-inadequate responders (TNF α -IR) participants with active Psoriatic Arthritis (PsA), as assessed by the American College of Rheumatology 50% improvement response.

Protection of trial subjects:

Participants were closely monitored and were expected to be treated for any worsening as per investigator judgement. Moreover, rescue medication could be added if participant was not having benefit of therapy, as per investigator discretion.

Background therapy:

No background therapy.

Evidence for comparator: -

| | |
|---|---------------|
| Actual start date of recruitment | 28 March 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 | Australia: 1 |
| Country: Number of subjects enrolled | Canada: 9 |
| Country: Number of subjects enrolled | Czechia: 27 |
| Country: Number of subjects enrolled | Germany: 22 |
| Country: Number of subjects enrolled | Hungary: 8 |
| Country: Number of subjects enrolled | Italy: 4 |
| Country: Number of subjects enrolled | Japan: 12 |
| Country: Number of subjects enrolled | Poland: 113 |
| Country: Number of subjects enrolled | Russian Federation: 102 |
| Country: Number of subjects enrolled | United Kingdom: 2 |
| Country: Number of subjects enrolled | United States: 100 |
| Worldwide total number of subjects | 400 |
| EEA total number of subjects | 174 |

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) | 337 |
| From 65 to 84 years | 62 |
| 85 years and over | 1 |

Subject disposition

Recruitment

Recruitment details:

The study started to enroll study participants in March 2019 and concluded in February 2022.

Pre-assignment

Screening details:

Participant Flow refers to the Randomized Set.

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, Assessor, Subject |

Arms

Are arms mutually exclusive? Yes

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

Arm description:

Participants received placebo as a subcutaneous (sc) injection every 4 weeks (Q4W) for up to 16 weeks.

| | |
|--|--|
| Arm type | Placebo |
| Investigational medicinal product name | Placebo |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Solution for injection in pre-filled syringe |
| Routes of administration | Subcutaneous use |

Dosage and administration details:

Participants received placebo Q4W at prespecified time points.

| | |
|------------------|-------------------|
| Arm title | Bimekizumab 160mg |
|------------------|-------------------|

Arm description:

Participants received bimekizumab (BKZ) 160 milligrams (mg) as a sc injection Q4W for up to 16 weeks.

| | |
|--|--|
| Arm type | Experimental |
| Investigational medicinal product name | Bimekizumab |
| Investigational medicinal product code | UCB4940 |
| Other name | |
| Pharmaceutical forms | Solution for injection in pre-filled syringe |
| Routes of administration | Subcutaneous use |

Dosage and administration details:

Participants received BKZ 160 mg Q4W at prespecified time points.

| Number of subjects in period 1 | Placebo | Bimekizumab 160mg |
|---------------------------------------|---------|-------------------|
| Started | 133 | 267 |
| Completed | 125 | 263 |
| Not completed | 8 | 4 |
| Consent withdrawn by subject | 4 | 1 |

| | | |
|---|---|---|
| Adverse event, non-fatal | - | 2 |
| Other (Covid-19 Pandemic Circumstances) | 1 | - |
| Lost to follow-up | 1 | - |
| Lack of efficacy | 2 | 1 |

Baseline characteristics

Reporting groups

| | |
|--|-------------------|
| Reporting group title | Placebo |
| Reporting group description: | |
| Participants received placebo as a subcutaneous (sc) injection every 4 weeks (Q4W) for up to 16 weeks. | |
| Reporting group title | Bimekizumab 160mg |
| Reporting group description: | |
| Participants received bimekizumab (BKZ) 160 milligrams (mg) as a sc injection Q4W for up to 16 weeks. | |

| Reporting group values | Placebo | Bimekizumab 160mg | Total |
|--|----------|-------------------|-------|
| Number of subjects | 133 | 267 | 400 |
| Age Categorical Units: participants | | | |
| <=18 years | 0 | 0 | 0 |
| Between 18 and 65 years | 111 | 226 | 337 |
| >=65 years | 22 | 41 | 63 |
| Age Continuous Units: years | | | |
| arithmetic mean | 51.30 | 50.13 | - |
| standard deviation | ± 12.876 | ± 12.382 | - |
| Sex: Female, Male Units: participants | | | |
| Female | 73 | 137 | 210 |
| Male | 60 | 130 | 190 |

End points

End points reporting groups

| | |
|--|-------------------|
| Reporting group title | Placebo |
| Reporting group description: | |
| Participants received placebo as a subcutaneous (sc) injection every 4 weeks (Q4W) for up to 16 weeks. | |
| Reporting group title | Bimekizumab 160mg |
| Reporting group description: | |
| Participants received bimekizumab (BKZ) 160 milligrams (mg) as a sc injection Q4W for up to 16 weeks. | |

Primary: Percentage of Participants with American College of Rheumatology 50 (ACR50) response

| | |
|------------------------|--|
| End point title | Percentage of Participants with American College of Rheumatology 50 (ACR50) response |
| End point description: | ACR50 response rate:50% or greater improvement of arthritis from Baseline. Those who met 3 conditions for improvement from Baseline met ACR50 response criteria: 1.Tender joint count (0-68 joints) ≥ 50% improvement; 2. Swollen joint count (0-66 joints) ≥ 50% improvement; and 3.≥ 50% improvement in at least 3 of the 5 below: Physician global assessment of disease activity [visual analog scale (VAS)(0-100 mm; no symptoms to severe)], Patient global assessment of disease activity [VAS-(0-100 mm; no limitation of normal activities to very poor)], Patient assessment of pain [VAS-(0-100 mm;no pain to most severe)], Health Assessment Questionnaire - Disability Index for degree of difficulty (20 queries from 8 domains of daily living activities scored 0-3, 0=less disability) High-sensitivity C-reactive protein (hsCRP). Analysis set:Randomized Set (RS). Non-responders: Those who missed ACR50 data at Week 16 or who discontinued study before Week 16 regardless of data present or not. |
| End point type | Primary |
| End point timeframe: | From Baseline to Week 16 |

| End point values | Placebo | Bimekizumab 160mg | | |
|-----------------------------------|-----------------|-------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 133 | 267 | | |
| Units: percentage of participants | | | | |
| number (not applicable) | 6.8 | 43.4 | | |

Statistical analyses

| | |
|----------------------------|-----------------------------|
| Statistical analysis title | Statistical Analysis 1 |
| Comparison groups | Placebo v Bimekizumab 160mg |

| | |
|---|----------------------|
| Number of subjects included in analysis | 400 |
| Analysis specification | Pre-specified |
| Analysis type | superiority |
| P-value | < 0.001 |
| Method | Regression, Logistic |
| Parameter estimate | Odds ratio (OR) |
| Point estimate | 11.139 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | 5.402 |
| upper limit | 22.969 |

Secondary: Change from Baseline in Health Assessment Questionnaire-Disability Index (HAQ-DI) at Week 16

| | |
|-----------------|--|
| End point title | Change from Baseline in Health Assessment Questionnaire-Disability Index (HAQ-DI) at Week 16 |
|-----------------|--|

End point description:

HAQ-DI contains 20 items that measured the degree of difficulty experienced in the following 8 categories of the daily living activities: dressing and grooming (2 items), arising (2 items), eating (3 items), walking (2 items), hygiene (3 items), reach (2 items), grip (3 items), and common daily activities (3 items). Each question was scored 0-3 (0 = without any difficulty, 1 = with some difficulty, 2 = with much difficulty, and 3 = unable to do). The overall HAQ-DI total score was calculated by dividing the sum of the highest category scores (0 to 24) by the number of categories with at least 1 question answered. Score ranges from 0 (no difficulty) to 3 (maximum difficulty). A lower HAQ-DI score indicated an improvement in function. A negative value in change from baseline indicated an improvement. RS consisted of all enrolled participants who had been randomized. Missing data and non-missing data preceded by a study treatment discontinuation were imputed using multiple imputation.

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

End point timeframe:

Baseline and Week 16

| End point values | Placebo | Bimekizumab 160mg | | |
|----------------------------------|--------------------|--------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 133 | 267 | | |
| Units: score on a scale | | | | |
| arithmetic mean (standard error) | -0.0701 (± 0.0432) | -0.3751 (± 0.0286) | | |

Statistical analyses

| | |
|----------------------------|-----------------------------|
| Statistical analysis title | Statistical Analysis 1 |
| Comparison groups | Placebo v Bimekizumab 160mg |

| | |
|---|-----------------------------------|
| Number of subjects included in analysis | 400 |
| Analysis specification | Pre-specified |
| Analysis type | superiority |
| P-value | < 0.001 |
| Method | ANCOVA |
| Parameter estimate | Least square (LS) mean difference |
| Point estimate | -0.326 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | -0.42 |
| upper limit | -0.233 |

Secondary: Psoriasis Area Severity Index 90 (PASI90) response at Week 4 in the subgroup of participants with psoriasis (PSO) involving at least 3% body surface area (BSA) at Baseline

| | |
|-----------------|---|
| End point title | Psoriasis Area Severity Index 90 (PASI90) response at Week 4 in the subgroup of participants with psoriasis (PSO) involving at least 3% body surface area (BSA) at Baseline |
|-----------------|---|

End point description:

The PASI90 response assessments are based on at least 90% improvement in PASI score from Baseline. Body divided into 4 areas: head, arms, trunk to groin, and legs to top of buttocks. Assignment of an average score for redness, thickness, and scaling for each of the 4 body areas with a score of 0 (clear) to 4 (very marked). Determining the percentage of skin covered with PSO for each of the body areas and converting to a 0 to 6 scale. Final PASI= average redness, thickness, and scaliness of the psoriatic skin lesions, multiplied by the involved psoriasis area score of respective section, and weighted by the percentage of the person's affected skin for respective section. The minimum possible PASI score is 0= no disease, the maximum score is 72= maximal disease. Subset of study participants in Randomized Set with psoriasis involving at least 3% BSA at Baseline. Non-responders: Missing PASI90 data at Week 4 or who discontinued study by Week 4 regardless of data present or not.

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

End point timeframe:

From Baseline to Week 4

| End point values | Placebo | Bimekizumab 160mg | | |
|-----------------------------------|-----------------|-------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 88 | 176 | | |
| Units: percentage of participants | | | | |
| number (not applicable) | 0 | 26.7 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Psoriasis Area Severity Index 90 response at Week 16 in the subgroup of participants with psoriasis involving at least 3% body surface area at Baseline

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|-----------------|---|
| End point title | Psoriasis Area Severity Index 90 response at Week 16 in the |
|-----------------|---|

subgroup of participants with psoriasis involving at least 3% body surface area at Baseline

End point description:

The PASI90 response assessments are based on at least 90% improvement in PASI score from Baseline. Body divided into 4 areas: head, arms, trunk to groin, and legs to top of buttocks. Assignment of an average score for redness, thickness, and scaling for each of the 4 body areas with a score of 0 (clear) to 4 (very marked). Determining the percentage of skin covered with PSO for each of the body areas and converting to a 0 to 6 scale. Final PASI= average redness, thickness, and scaliness of the psoriatic skin lesions, multiplied by the involved psoriasis area score of respective section, and weighted by the percentage of the person's affected skin for respective section. The minimum possible PASI score is 0= no disease, the maximum score is 72= maximal disease. Subset of study participants in Randomized Set with psoriasis involving at least 3% BSA at Baseline. Non-responders: Missing PASI90 data at Week 16 or who discontinued study by Week 16 regardless of data present or not.

End point type Secondary

End point timeframe:

From Baseline to Week 16

| End point values | Placebo | Bimekizumab 160mg | | |
|-----------------------------------|-----------------|-------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 88 | 176 | | |
| Units: percentage of participants | | | | |
| number (not applicable) | 6.8 | 68.8 | | |

Statistical analyses

| | |
|---|-----------------------------|
| Statistical analysis title | Statistical Analysis 1 |
| Comparison groups | Placebo v Bimekizumab 160mg |
| Number of subjects included in analysis | 264 |
| Analysis specification | Pre-specified |
| Analysis type | superiority |
| P-value | < 0.001 |
| Method | Regression, Logistic |
| Parameter estimate | Odds ratio (OR) |
| Point estimate | 30.237 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | 12.365 |
| upper limit | 73.94 |

Secondary: Change from Baseline in the Short Form 36-item Health Survey (SF-36) Physical Component Summary (PCS) score at Week 16

End point title Change from Baseline in the Short Form 36-item Health Survey (SF-36) Physical Component Summary (PCS) score at Week 16

End point description:

The SF-36 (version 2, standard recall) is a 36-item generic HRQoL instrument that uses a recall period of 4 weeks. The questionnaire has 36 questions composing the scale that represent 8 domains: 1)

physical functioning, 2) role physical, 3) bodily pain, 4) general health, 5) vitality, 6) social functioning, 7) role emotional, and 8) mental health. The scores for the 8 domains were combined into two summary scores: the physical component summary (PCS) score and the mental component summary (MCS) score. Domains 1 to 4 primarily contribute to the PCS score of the SF-36. Domains 5-8 primarily contribute to the MCS score of the SF-36. Each of the 8 domain scores and the component summary score range from 0=worst to 100=best. Higher scores represent better health status. A positive change in value indicated improvement from baseline. Randomized Set consisted of all enrolled participants who had been randomized.

| | |
|----------------------|-----------|
| End point type | Secondary |
| End point timeframe: | |
| Baseline and Week 16 | |

| End point values | Placebo | Bimekizumab 160mg | | |
|----------------------------------|----------------------|----------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 133 | 267 | | |
| Units: score on a scale | | | | |
| arithmetic mean (standard error) | 1.413 (\pm 0.714) | 7.258 (\pm 0.531) | | |

Statistical analyses

| Statistical analysis title | Statistical Analysis 1 |
|---|-----------------------------|
| Comparison groups | Placebo v Bimekizumab 160mg |
| Number of subjects included in analysis | 400 |
| Analysis specification | Pre-specified |
| Analysis type | superiority |
| P-value | < 0.001 |
| Method | ANCOVA |
| Parameter estimate | LS mean difference |
| Point estimate | 6.037 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | 4.386 |
| upper limit | 7.688 |

Secondary: Minimal Disease Activity (MDA) at Week 16

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|-----------------|---|
| End point title | Minimal Disease Activity (MDA) at Week 16 |
|-----------------|---|

End point description:

MDA is a measure to indicate disease remission and is based on a composite score of 7 domains. A participant is considered as having achieved the MDA if participant fulfills at least 5 of following 7 criteria: Tender joint count (0-68 joints) \leq 1; Swollen joint count (0-66 joints) \leq 1; PASI \leq 1 for participants with psoriasis covering BSA \leq 3% [PASI evaluates severity and extent of psoriasis. In PASI, body is divided into four parts and each area is assessed for erythema, induration and scaling, each rated on a scale of 0 to 4. The total score ranges from 0 (no disease) to 72 (maximal disease)]; Patient's Assessment of Arthritis Pain \leq 15 [using VAS on a scale of 0 (no pain) to 100 (serious pain)]; Patient's Global Assessment of Disease Activity \leq 20 [using VAS on a scale of 0 (very well) to 100 (very poor)]; HAQ-DI score \leq 0.5; Leeds Enthesitis Index score \leq 1 for participants with enthesitis at

baseline. Randomized Set consisted of all enrolled participants who had been randomized.

| | |
|----------------------|-----------|
| End point type | Secondary |
| End point timeframe: | |
| Week 16 | |

| End point values | Placebo | Bimekizumab 160mg | | |
|-----------------------------------|-----------------|----------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 133 | 267 | | |
| Units: percentage of participants | | | | |
| number (not applicable) | 6.0 | 44.2 | | |

Statistical analyses

| | |
|---|-----------------------------|
| Statistical analysis title | Statistical Analysis 1 |
| Comparison groups | Placebo v Bimekizumab 160mg |
| Number of subjects included in analysis | 400 |
| Analysis specification | Pre-specified |
| Analysis type | superiority |
| P-value | < 0.001 |
| Method | Regression, Logistic |
| Parameter estimate | Odds ratio (OR) |
| Point estimate | 13.089 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | 6.119 |
| upper limit | 27.999 |

Secondary: Percentage of participants with American College of Rheumatology 70 (ACR70) response

| | |
|-----------------|--|
| End point title | Percentage of participants with American College of Rheumatology 70 (ACR70) response |
|-----------------|--|

End point description:

ACR70 response rate:70% or greater improvement of arthritis from Baseline. Those who met 3 conditions for improvement from Baseline met ACR70 response criteria: 1.Tender joint count (0-68 joints) \geq 70% improvement; 2. Swollen joint count (0-66 joints) \geq 70% improvement; and 3. \geq 70% improvement in at least 3 of the 5 below: Physician global assessment of disease activity [visual analog scale (VAS)(0-100 mm; no symptoms to severe)], Patient global assessment of disease activity [VAS-(0-100 mm; no limitation of normal activities to very poor)], Patient assessment of pain [VAS-(0-100 mm;no pain to most severe)], Health Assessment Questionnaire - Disability Index for degree of difficulty (20 queries from 8 domains of daily living activities scored 0-3, 0=less disability) High-sensitivity C-reactive protein (hsCRP). Analysis set:Randomized Set. Non-responders: Those who missed ACR70 data at Week 16 or who discontinued study before Week 16 regardless of data present or not.

| | |
|--------------------------|-----------|
| End point type | Secondary |
| End point timeframe: | |
| From Baseline to Week 16 | |

| End point values | Placebo | Bimekizumab 160mg | | |
|-----------------------------------|-----------------|----------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 133 | 267 | | |
| Units: percentage of participants | | | | |
| number (not applicable) | 0.8 | 26.6 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of participants with American College of Rheumatology 20 (ACR20) response

| | |
|------------------------|---|
| End point title | Percentage of participants with American College of Rheumatology 20 (ACR20) response |
| End point description: | ACR20 response rate:20% or greater improvement of arthritis from Baseline. Those who met 3 conditions for improvement from Baseline met ACR20 response criteria: 1.Tender joint count (0-68 joints) ≥ 20% improvement; 2. Swollen joint count (0-66 joints) ≥ 20% improvement; and 3.≥ 20% improvement in at least 3 of the 5 below: Physician global assessment of disease activity [visual analog scale (VAS)(0-100 mm; no symptoms to severe)], Patient global assessment of disease activity [VAS-(0-100 mm; no limitation of normal activities to very poor)], Patient assessment of pain [VAS-(0-100 mm;no pain to most severe)], Health Assessment Questionnaire - Disability Index for degree of difficulty (20 queries from 8 domains of daily living activities scored 0-3, 0=less disability) High-sensitivity C-reactive protein (hsCRP). Analysis set:Randomized Set. Non-responders: Those who missed ACR20 data at Week 16 or who discontinued study before Week 16 regardless of data present or not. |
| End point type | Secondary |
| End point timeframe: | From Baseline to Week 16 |

| End point values | Placebo | Bimekizumab 160mg | | |
|-----------------------------------|-----------------|----------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 133 | 267 | | |
| Units: percentage of participants | | | | |
| number (not applicable) | 15.8 | 67.0 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Investigator Global Assessment (IGA) response defined as score of 0 (clear) or 1 (almost clear) and at least a 2-grade reduction from Baseline at Week 4 in the subset of participants with psoriatic skin lesions at Baseline

| | |
|-----------------|--|
| End point title | Investigator Global Assessment (IGA) response defined as score of 0 (clear) or 1 (almost clear) and at least a 2-grade reduction from Baseline at Week 4 in the subset of participants with psoriatic skin lesions at Baseline |
|-----------------|--|

End point description:

IGA assessed the overall severity of PSO using a 5-point scale with scores 0=clear (No signs of PSO; post-inflammatory hyperpigmentation may be present), 1=almost clear (No thickening; normal to pink coloration; no to minimal focal scaling), 2=mild (Just detectable to mild thickening; pink to light red coloration; predominately fine scaling), 3=moderate (Clearly distinguishable to moderate thickening; dull to bright red, moderate scaling), and 4=severe (Severe thickening with hard edges; bright to deep dark red coloration; severe/coarse scaling covering almost all or all lesions). The IGA response score of 0 (clear) or 1 (almost clear) indicated at least 2-category improvement relative to Baseline. Subset of study participants in Randomized Set with psoriatic skin lesions at Baseline. Non-responders: Participants who had missing data at the Week 4 or who discontinued study treatment before or at the Week 4 regardless of whether they had data or not.

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

End point timeframe:

Baseline and Week 4

| End point values | Placebo | Bimekizumab 160mg | | |
|-----------------------------------|-----------------|-------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 82 | 163 | | |
| Units: percentage of participants | | | | |
| number (not applicable) | 1.2 | 30.7 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Investigator Global Assessment (IGA) response defined as score of 0 (clear) or 1 (almost clear) AND at least a 2-grade reduction from Baseline at Week 16 in the subset of participants with psoriatic skin lesions at Baseline

| | |
|-----------------|---|
| End point title | Investigator Global Assessment (IGA) response defined as score of 0 (clear) or 1 (almost clear) AND at least a 2-grade reduction from Baseline at Week 16 in the subset of participants with psoriatic skin lesions at Baseline |
|-----------------|---|

End point description:

IGA assessed the overall severity of PSO using a 5-point scale with scores 0=clear (No signs of PSO; post-inflammatory hyperpigmentation may be present), 1=almost clear (No thickening; normal to pink coloration; no to minimal focal scaling), 2=mild (Just detectable to mild thickening; pink to light red coloration; predominately fine scaling), 3=moderate (Clearly distinguishable to moderate thickening; dull to bright red, moderate scaling), and 4=severe (Severe thickening with hard edges; bright to deep dark red coloration; severe/coarse scaling covering almost all or all lesions). The IGA response score of 0 (clear) or 1 (almost clear) indicated at least 2-category improvement relative to Baseline. Subset of study participants in Randomized Set with psoriatic skin lesions at Baseline. Non-responders: Participants who had missing data at the Week 16 or who discontinued study treatment before or at the Week 16 regardless of whether they had data or not.

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

End point timeframe:

Baseline and Week 16

| End point values | Placebo | Bimekizumab 160mg | | |
|-----------------------------------|-----------------|----------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 82 | 163 | | |
| Units: percentage of participants | | | | |
| number (not applicable) | 3.7 | 60.7 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Change from Baseline in the Patient's Assessment of Arthritis Pain (PtAAP) at Week 16

| | | | | |
|------------------------|---|--|--|--|
| End point title | Change from Baseline in the Patient's Assessment of Arthritis Pain (PtAAP) at Week 16 | | | |
| End point description: | The PtAAP Visual Analog Scale (VAS) is part of the American College of Rheumatology core set of measures in arthritis. Participants assessed their arthritis pain using a VAS on a scale of 0 (very well) to 100 (very poor). A negative change from baseline indicates improvement. Randomized Set consisted of all enrolled participants who had been randomized. | | | |
| End point type | Secondary | | | |
| End point timeframe: | Baseline and Week 16 | | | |

| End point values | Placebo | Bimekizumab 160mg | | |
|----------------------------------|-----------------|----------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 133 | 267 | | |
| Units: score on a scale | | | | |
| arithmetic mean (standard error) | -4.5 (± 2.1) | -27.7 (± 1.7) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Change from Baseline in Psoriatic Arthritis Impact of Disease-12 (PsAID-12) total score at Week 16

| | | | | |
|------------------------|--|--|--|--|
| End point title | Change from Baseline in Psoriatic Arthritis Impact of Disease-12 (PsAID-12) total score at Week 16 | | | |
| End point description: | The PsAID-12 is a patient-reported outcome measure for assessing the impact of Psoriatic Arthritis (PsA) in 12 physical and psychological domains, including pain, fatigue, skin problems, work and/or leisure activities, functional capacity, discomfort, sleep disturbance, coping, anxiety/fear/uncertainty, | | | |

embarrassment and/or shame, social participation, and depression. Each domain was assessed with a single question using a 0 to 10 numerical rating scale. Each domain score was multiplied by a weighting factor and the results were then summed to provide the total score. The total score ranged from 0 to 10, with higher scores indicating a worse status. A negative change from baseline indicates improvement. Randomized Set consisted of all enrolled participants who had been randomized.

| | |
|----------------------|-----------|
| End point type | Secondary |
| End point timeframe: | |
| Baseline and Week 16 | |

| End point values | Placebo | Bimekizumab 160mg | | |
|----------------------------------|-----------------|----------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 133 | 267 | | |
| Units: score on a scale | | | | |
| arithmetic mean (standard error) | -0.32 (± 0.16) | -2.24 (± 0.13) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Participants with treatment-emergent adverse events (TEAEs) during the study

| | |
|-----------------|--|
| End point title | Number of Participants with treatment-emergent adverse events (TEAEs) during the study |
|-----------------|--|

End point description:

An Adverse Event (AE) is any untoward medical occurrence in a patient or clinical investigation subject administered a pharmaceutical product, which does not necessarily have a causal relationship with this treatment. An AE could therefore be any unfavorable and unintended sign, symptom, or disease temporally associated with the use of a medicinal (investigational) product, whether or not related to the medicinal (investigational) product. TEAEs were defined as any AEs with an onset date on or after the date of first IMP administration and up to 20 weeks after the last (most recent) dose of IMP. The Safety Set consisted of all participants who received at least 1 dose of the IMP.

| | |
|---|-----------|
| End point type | Secondary |
| End point timeframe: | |
| From Baseline until Safety Follow-Up (up to 37 weeks) | |

| End point values | Placebo | Bimekizumab 160mg | | |
|-----------------------------|-----------------|----------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 132 | 267 | | |
| Units: participants | 44 | 108 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Participants with treatment-emergent serious adverse events (SAEs) during the study

| | |
|-----------------|---|
| End point title | Number of Participants with treatment-emergent serious adverse events (SAEs) during the study |
|-----------------|---|

End point description:

A serious adverse event (SAE) is any untoward medical occurrence that at any dose: Results in death, Is life-threatening, Requires in patient hospitalization or prolongation of existing hospitalization; Is a congenital anomaly or birth defect; Is an infection that requires treatment parenteral antibiotics, Other important medical events which based on medical or scientific judgement may jeopardize the patients, or may require medical or surgical intervention to prevent any of the above. TEAEs were defined as any AEs with an onset date on or after the date of first IMP administration and up to 20 weeks after the last (most recent) dose of IMP. The Safety Set consisted of all participants who received at least 1 dose of the IMP.

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

End point timeframe:

From Baseline until Safety Follow-Up (up to 37 weeks)

| End point values | Placebo | Bimekizumab 160mg | | |
|-----------------------------|-----------------|-------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 132 | 267 | | |
| Units: participants | 0 | 5 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Participants with treatment-emergent adverse events (TEAEs) leading to withdrawal from investigational medicinal product (IMP) during the study

| | |
|-----------------|---|
| End point title | Number of Participants with treatment-emergent adverse events (TEAEs) leading to withdrawal from investigational medicinal product (IMP) during the study |
|-----------------|---|

End point description:

An Adverse Event (AE) is any untoward medical occurrence in a patient or clinical investigation subject administered a pharmaceutical product, which does not necessarily have a causal relationship with this treatment. An AE could therefore be any unfavorable and unintended sign, symptom, or disease temporally associated with the use of a medicinal (investigational) product, whether or not related to the medicinal (investigational) product. TEAEs were defined as any AEs with an onset date on or after the date of first IMP administration and up to 20 weeks after the last (most recent) dose of IMP. The Safety Set consisted of all participants who received at least 1 dose of the IMP.

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

End point timeframe:

From Baseline until Safety Follow-Up (up to 37 weeks)

| End point values | Placebo | Bimekizumab 160mg | | |
|-----------------------------|-----------------|----------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 132 | 267 | | |
| Units: participants | 0 | 2 | | |

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

From Baseline until Safety Follow-Up (up to 37 weeks)

Adverse event reporting additional description:

Treatment-emergent adverse events (TEAEs) were defined as any AEs with an onset date on or after the date of first IMP administration and up to 20 weeks after the last (most recent) dose of IMP. TEAEs were analyzed for Safety Set.

| | |
|-----------------|----------------|
| Assessment type | Non-systematic |
|-----------------|----------------|

Dictionary used

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

| | |
|--------------------|------|
| Dictionary version | 19.0 |
|--------------------|------|

Reporting groups

| | |
|-----------------------|-------------------|
| Reporting group title | Bimekizumab 160mg |
|-----------------------|-------------------|

Reporting group description:

Participants received bimekizumab 160 mg as a sc injection Q4W for up to 16 weeks.

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

Reporting group description:

Participants received placebo as a sc injection Q4W for up to 16 weeks.

| Serious adverse events | Bimekizumab 160mg | Placebo | |
|---|-------------------|-----------------|--|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 5 / 267 (1.87%) | 0 / 132 (0.00%) | |
| number of deaths (all causes) | 0 | 0 | |
| number of deaths resulting from adverse events | 0 | 0 | |
| Injury, poisoning and procedural complications | | | |
| Joint injury | | | |
| subjects affected / exposed | 1 / 267 (0.37%) | 0 / 132 (0.00%) | |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | |
| Nervous system disorders | | | |
| Toxic encephalopathy | | | |
| subjects affected / exposed | 1 / 267 (0.37%) | 0 / 132 (0.00%) | |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | |
| Gastrointestinal disorders | | | |
| Intestinal obstruction | | | |

| | | | |
|---|-----------------|-----------------|--|
| subjects affected / exposed | 1 / 267 (0.37%) | 0 / 132 (0.00%) | |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | |
| Infections and infestations | | | |
| Bronchitis | | | |
| subjects affected / exposed | 1 / 267 (0.37%) | 0 / 132 (0.00%) | |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | |
| Pneumonia | | | |
| subjects affected / exposed | 1 / 267 (0.37%) | 0 / 132 (0.00%) | |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | |

Frequency threshold for reporting non-serious adverse events: 2 %

| Non-serious adverse events | Bimekizumab 160mg | Placebo | |
|---|----------------------|-------------------|--|
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 34 / 267 (12.73%) | 15 / 132 (11.36%) | |
| Vascular disorders | | | |
| Hypertension | | | |
| subjects affected / exposed | 3 / 267 (1.12%) | 3 / 132 (2.27%) | |
| occurrences (all) | 3 | 3 | |
| Infections and infestations | | | |
| Corona virus infection | | | |
| subjects affected / exposed | 5 / 267 (1.87%) | 6 / 132 (4.55%) | |
| occurrences (all) | 5 | 6 | |
| Nasopharyngitis | | | |
| subjects affected / exposed | 10 / 267 (3.75%) | 1 / 132 (0.76%) | |
| occurrences (all) | 11 | 1 | |
| Urinary tract infection | | | |
| subjects affected / exposed | 5 / 267 (1.87%) | 3 / 132 (2.27%) | |
| occurrences (all) | 6 | 3 | |
| Upper respiratory tract infection | | | |
| subjects affected / exposed | 6 / 267 (2.25%) | 2 / 132 (1.52%) | |
| occurrences (all) | 6 | 2 | |

| | | | |
|--|----------------------|----------------------|--|
| Oral candidiasis subjects affected / exposed occurrences (all) | 7 / 267 (2.62%) 9 | 0 / 132 (0.00%) 0 | |
|--|----------------------|----------------------|--|

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

| Date | Amendment |
|---------------|--|
| 14 May 2020 | Protocol amendment 1 was implemented to update the completed and ongoing studies information, clarify study procedures, add re-screening rules, update the description of IMP, change the statistical hierarchy, and update the statistical section. |
| 01 April 2021 | Protocol Amendment 2 was implemented to modify the secondary variables and fixed sequence testing procedure, update the statistical section, and make other procedural clarifications. |

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported