Clinical trial results:
A randomized, open label multicenter trial to investigate the efficacy of a treat-to-target treatment strategy with secukinumab (AIN457) as a first-line biologic compared to a standard-of-care treatment over 36 weeks in patients with active axial spondyloarthritis (axSpA) - AScalate

Summary

EudraCT number	2018-003882-32
Trial protocol	DE FR
Global end of trial date	22 September 2022

Results information

Result version number	v1
This version publication date	07 October 2023
First version publication date	07 October 2023

Trial information

Trial identification

Sponsor protocol code	CAIN457HDE01

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03906136
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Novartis Pharma AG
Sponsor organisation address	Novartis Campus, 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	22 September 2022
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	22 September 2022
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To demonstrate that the efficacy of the T2T approach (with secukinumab as first-line biologic) is superior to the SOC approach based on the percentage of patients achieving an ASAS40 response at Week 24.

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	04 June 2019
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	France: 59
Country: Number of subjects enrolled	Germany: 245
Worldwide total number of subjects	304
EEA total number of subjects	304

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)	293
From 65 to 84 years	11

85 years and over	0

Subject disposition

Recruitment

Recruitment details:

304 participants were enrolled at sites in Germany (245) and France (59)

Pre-assignment

Screening details:

The study included an 8-week
Screening period.

Period 1

Period 1 title	Overall Study (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	Treat-to-Target (T2T)

Arm description:

Treat To Target approach with secukinumab as first line biologic

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

Dosage and administration details:

adalimumab biosimilar 40 mg

Investigational medicinal product name	secukinumab
Investigational medicinal product code	AIN457
Other name	
Pharmaceutical forms	Solution for injection in pre-filled syringe
Routes of administration	Subcutaneous use

Dosage and administration details:

secukinumab 150 mg, secukinumab 300 mg

Arm title	Standard-of-care (SOC)

Arm description:

Patients received treatment according to local practice standards by their treating physician following the current treatment recommendations.

Arm type	Active comparator
Investigational medicinal product name	treatment according to local practice standards by their treating physician following the current treatment recommendations.
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection in pre-filled syringe
Routes of administration	Subcutaneous use

Dosage and administration details:

treatment according to local practice standards by their treating physician following the current treatment recommendations.

Number of subjects in period 1	Treat-to-Target (T2T)	Standard-of-care (SOC)
Started	155	149
Completed	143	138
Not completed	12	11
Physician decision	1	-
Consent withdrawn by subject	3	7
Adverse event, non-fatal	1	-
Lost to follow-up	7	4

Baseline characteristics

Reporting groups	
Reporting group title	Treat-to-Target (T2T)
Reporting group description:	
Treat To Target approach with secukinumab as first line biologic	
Reporting group title	Standard-of-care (SOC)
Reporting group description:	
Patients received treatment according to local practice standards by their treating physician following the current treatment recommendations.	

Reporting group values	Treat-to-Target (T2T)	Standard-of-care (SOC)	Total
Number of subjects	155	149	304
Age Categorical Units: Participants			
<=18 years	0	0	0
Between 18 and 65 years	149	144	293
>=65 years	6	5	11
Age Continuous Units: Years			
arithmetic mean	40.0	38.6	
standard deviation	± 12.03	± 12.17	-
Sex: Female, Male Units: Participants			
Female	59	51	110
Male	96	98	194
Race/Ethnicity, Customized Units: Subjects			
Asian	1	0	1
Black or African American	0	1	1
White	128	114	242
More than one race	0	1	1
Other	26	33	59

End points

End points reporting groups	
Reporting group title	Treat-to-Target (T2T)
Reporting group description:	
Treat To Target approach with secukinumab as first line biologic	
Reporting group title	Standard-of-care (SOC)
Reporting group description:	
Patients received treatment according to local practice standards by their treating physician following the current treatment recommendations.	

Primary: Percentage of patients achieving an ASAS40 response at Week 24	
End point title	Percentage of patients achieving an ASAS40 response at Week 24
End point description:	
Assessment of SpondyloArthritis International Society criteria (ASAS) consists of 4 domains measured on visual analog scales (VAS): 1. Patient's global assessment; 2. Patient's assessment of back pain; 3. Function represented by Bath Ankylosing Spondylitis Functional Index (BASFI) average of 10 questions; 4. Inflammation represented by mean duration and severity of morning stiffness, on the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI). ASAS40 response is defined as an improvement of ≥40% and ≥2 units on a scale of 0 - 10 in at least three of the four ASAS domains and no worsening at all in the remaining domain. A score of 0 indicates less severity; a score of 10 indicates more severity.	
End point type	Primary
End point timeframe:	
Baseline, Week 24	

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Participants	144	139		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description:	
Week 24	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.119
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.69

Confidence interval	
level	95 %
sides	2-sided
lower limit	0.43
upper limit	1.1

Secondary: Percentage of patients achieving an ASAS40 response at Week 12

End point title	Percentage of patients achieving an ASAS40 response at Week 12

End point description:

Assessment of SpondyloArthritis International Society criteria (ASAS) consists of 4 domains measured on visual analog scales (VAS): 1. Patient's global assessment; 2. Patient's assessment of back pain; 3. Function represented by Bath Ankylosing Spondylitis Functional Index (BASFI) average of 10 questions; 4. Inflammation represented by mean duration and severity of morning stiffness, on the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI). ASAS40 response is defined as an improvement of ≥40% and ≥2 units on a scale of 0 - 10 in at least three of the four ASAS domains and no worsening at all in the remaining domain. A score of 0 indicates less severity; a score of 10 indicates more severity.

End point type	Secondary

End point timeframe:

Baseline, Week 12

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Participants	147	143		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC

Statistical analysis description:

Week 12

Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.029
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.59
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.37
upper limit	0.95

Secondary: Percentage of patients achieving ASAS20 response

End point title	Percentage of patients achieving ASAS20 response

End point description:

Assessment of SpondyloArthritis International Society criteria (ASAS) consist of 4 domains measured on visual analog scales (VAS): 1. Patient's global assessment; 2. Patient's assessment of back pain; 3. Function represented by Bath Ankylosing Spondylitis Functional Index (BASFI) average of 10 questions; 4. Inflammation represented by mean duration and severity of morning stiffness, on the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI). ASAS20 response is defined as an improvement of ≥20% and ≥1 unit on a scale of 0 - 10 in at least three of the four ASAS domains and no worsening at all in the remaining domain. A score of 0 indicates less severity; a score of 10 indicates more severity.

End point type	Secondary

End point timeframe:

Baseline, Weeks 12 and 24

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Participants				
Week 12	147	143		
Week 24	144	139		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC

Statistical analysis description:

Week 12

Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.154
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.71
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.45
upper limit	1.14

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description: Week 24	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.562
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.71
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.54
upper limit	1.39

Secondary: Percentage of patients achieving ASAS partial remission

End point title	Percentage of patients achieving ASAS partial remission

End point description:

Assessment of SpondyloArthritis International Society criteria (ASAS) consist of 6 domains (4 main and 2 additional assessment domains): 1. Patient's global assessment measured on a visual analog scale (VAS); 2. Patient's assessment of back pain, measured on a VAS; 3. Function represented by Bath Ankylosing Spondylitis Functional Index (BASFI) average of 10 questions as measured by VAS; 4. Inflammation represented by mean duration and severity of morning stiffness, on the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) as measured by VAS; 5. Spinal mobility represented by the Bath Ankylosing Spondylitis Metrology Index (BASMI) lateral spinal flexion assessment; 6. C-reactive protein (acute phase reactant).

The ASAS partial remission criteria are defined as a value not above 2 units in each of the four main domains on a scale of 10. A higher score on the VAS signifies higher severity.

End point type	Secondary

End point timeframe:

Baseline, Weeks 12 and 24

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Participants				
Week 12	149	143		
Week 24	146	139		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description:	
Week 24	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.264
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.74
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.44
upper limit	1.25

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description:	
Week 12	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.029
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.55
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.32
upper limit	0.94

Secondary: Percentage of patients meeting the Ankylosing Spondylitis Disease Activity Score (ASDAS) definition of inactive disease

End point title	Percentage of patients meeting the Ankylosing Spondylitis Disease Activity Score (ASDAS) definition of inactive disease

End point description:

Parameters used for the ASDAS include spinal pain (Bath Ankylosing Spondylitis Disease Activity Index, BASDAI question 2), the patient's global assessment of disease activity, peripheral pain/swelling (BASDAI question 3), duration of morning stiffness (BASDAI question 6) and C-reactive Protein or Erythrocyte Sedimentation Rate).
The 3 values selected to separate disease activity states were < 1.3 between inactive disease and low disease activity, < 2.1 between low disease activity and high disease activity, and > 3.5 between high disease activity and very high disease activity. Selected cutoffs for improvement scores were a change of ≥ 1.1 unit for "minimal clinically important improvement" and a change of ≥ 2.0 units for "major improvement".

End point type	Secondary

End point timeframe:
Baseline, Weeks 12 and 24

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Participants				
Week 12	151	141		
Week 24	146	136		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description:	
Week 24	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.103
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.72
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.4
upper limit	1.28

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description:	
Week 12	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.008
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.49

Confidence interval	
level	95 %
sides	2-sided
lower limit	0.4
upper limit	1.28

Secondary: Percentage of patients with ASDAS major improvement

End point title	Percentage of patients with ASDAS major improvement

End point description:

Parameters used for the ASDAS include spinal pain (Bath Ankylosing Spondylitis Disease Activity Index, BASDAI question 2), the patient's global assessment of disease activity, peripheral pain/swelling (BASDAI question 3), duration of morning stiffness (BASDAI question 6) and C-reactive Protein or Erythrocyte Sedimentation Rate).
The 3 values selected to separate disease activity states were < 1.3 between inactive disease and low disease activity, < 2.1 between low disease activity and high disease activity, and > 3.5 between high disease activity and very high disease activity. Selected cutoffs for improvement scores were a change of ≥ 1.1 unit for "minimal clinically important improvement" and a change of ≥ 2.0 units for "major improvement".

End point type	Secondary

End point timeframe:

Baseline, Weeks 12 and 24

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Participants				
Week 12	151	141		
Week 24	146	136		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC

Statistical analysis description:

Week 24

Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.103
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.72

Confidence interval	
level	95 %
sides	2-sided
lower limit	0.41
upper limit	1.29

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description:	
Week 12	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.263
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.72
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.4
upper limit	1.28

Secondary: Percentage of patients with ASDAS low disease activity

End point title	Percentage of patients with ASDAS low disease activity

End point description:

Parameters used for the ASDAS include spinal pain (Bath Ankylosing Spondylitis Disease Activity Index, BASDAI question 2), the patient's global assessment of disease activity, peripheral pain/swelling (BASDAI question 3), duration of morning stiffness (BASDAI question 6) and C-reactive Protein or Erythrocyte Sedimentation Rate).
The 3 values selected to separate disease activity states were < 1.3 between inactive disease and low disease activity, < 2.1 between low disease activity and high disease activity, and > 3.5 between high disease activity and very high disease activity. Selected cutoffs for improvement scores were a change of ≥ 1.1 unit for "minimal clinically important improvement" and a change of ≥ 2.0 units for "major improvement".

End point type	Secondary

End point timeframe:

Baseline, Weeks 12 and 24

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Participants				
Week 12	151	141		
Week 24	146	136		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description: Week 24	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.409
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.82
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.52
upper limit	1.31

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description: Week 12	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.055
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.64
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.4
upper limit	1.01

Secondary: Percentage of patients achieving the Bath Ankylosing Spondylitis Disease Activity Index response 50% (BASDAI 50) at Week 12 and Week 24

End point title	Percentage of patients achieving the Bath Ankylosing Spondylitis Disease Activity Index response 50% (BASDAI 50) at Week 12 and Week 24

End point description:

The BASDAI consists of a 0 through 10 scale (0 being no problem and 10 being the worst problem, captured as a continuous VAS), which is used to answer 6 questions pertaining to the 5 major symptoms of the disease. BASDAI 50 response is defined as at least 50% improvement (decrease) in total BASDAI score.

End point type	Secondary

End point timeframe:

Baseline, Weeks 12 and 24

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Participants				
Week 12	153	144		
Week 24	148	140		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC

Statistical analysis description:

Week 24

Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.968
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.01
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.63
upper limit	1.61

Statistical analysis title	Comparison of T2T versus SOC

Statistical analysis description:

Week 12

Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)

Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.477
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.85
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.53
upper limit	1.34

Secondary: Change from Baseline in Bath Ankylosing Spondylitis Functional Index (BASFI)

End point title	Change from Baseline in Bath Ankylosing Spondylitis Functional Index (BASFI)

End point description:

The Bath Ankylosing Spondylitis Functional Index (BASFI) is a set of 10 questions designed to determine the degree of functional limitation in those patients with AS. The 10 questions were chosen with major input from patients with AS. The first 8 questions consider activities related to functional anatomy. The final 2 questions assess the patients' ability to cope with everyday life. A 0 through 10 scale (captured as a continuous VAS) is used to answer the questions. The mean of the 10 scales gives the BASFI score – a value between 0 and 10. A higher score on the VAS signifies higher severity.

End point type	Secondary

End point timeframe:

Baseline, Weeks 12 and 24

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Scores on a scale				
least squares mean (confidence interval 95%)				
Week 12	-1.69 (-2.01 to -1.37)	-1.99 (-2.31 to 1.66)		
Week 24	-1.97 (-2.28 to 1.65)	-2.33 (-2.66 to 2.01)		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC

Statistical analysis description:

Week 12

Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)

Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.205
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.16
upper limit	0.75

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description:	
Week 24	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.108
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	0.37
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.08
upper limit	0.82

Secondary: Change from Baseline in Bath ankylosing spondylitis metrology index (BASMI)

End point title	Change from Baseline in Bath ankylosing spondylitis metrology index (BASMI)
End point description:	
BASMI measures the range of motion based on five clinical measurements: 1) cervical rotation, 2) tragus to wall distance, 3) lumbar side flexion, 4) lumbar flexion (modified Schober's) and 5) intermalleolar distance. BASMI 0 = indicates mild disease involvement, 1 = moderate disease, and 2 = severe disease involvement. The results for cervical rotation and lumbar side flexion are the means of the left and right measurements. Scoring range 0-10. The higher the BASMI score, the more severe was the subject's limitation of movement.	
End point type	Secondary
End point timeframe:	
Baseline, Weeks 12 and 24	

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Scores on a scale				
least squares mean (confidence interval 95%)				
Week 12	-0.32 (-0.44 to -0.20)	-0.38 (-0.50 to -0.27)		
Week 24	-0.41 (-0.55 to -0.27)	-0.35 (-0.50 to -0.21)		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description: Week 24	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.577
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Point estimate	-0.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.25
upper limit	0.14

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description: Week 12	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.525
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Point estimate	0.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.12
upper limit	0.23

Secondary: Change from Baseline in chest expansion	
End point title	Change from Baseline in chest expansion
End point description: Chest expansion is measured as the cervical rotation angle (in degrees).	
End point type	Secondary
End point timeframe: Baseline, Weeks 12 and 24	

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: degrees				
least squares mean (confidence interval 95%)				
Week 12	0.46 (-0.54 to 1.46)	1.35 (0.33 to 2.38)		
Week 24	0.47 (0.05 to 0.88)	0.57 (0.14 to 1.00)		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description: Week 24	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.745
Method	Regression, Logistic
Parameter estimate	Median difference (net)
Point estimate	-0.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.7
upper limit	0.5

Statistical analysis title	Comparison of T2T versus SOC

Statistical analysis description:	
Week 12	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.22
Method	Mixed models analysis
Parameter estimate	Odds ratio (OR)
Point estimate	-0.89
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.32
upper limit	0.54

Secondary: Change from Baseline in the ASQoL (Ankylosing Spondylitis Quality of Life instrument)

End point title	Change from Baseline in the ASQoL (Ankylosing Spondylitis Quality of Life instrument)

End point description:

The Ankylosing Spondylitis Quality of Life scores (ASQoL) is a self-administered questionnaire designed to assess health-related quality of life in adult patients with Ankylosing Spondylitis. The ASQoL contains 18 items with a dichotomous yes/no response option. A single point is assigned for each "yes" response and no points for each "no" response resulting in overall scores that range from 0 (least severity) to 18 (highest severity). As such, lower score indicate better quality of life. Items include an assessment of mobility/energy, self-care and mood/emotion. The recall period is "at the moment," and the measure requires approximately 6 minutes to complete.

End point type	Secondary

End point timeframe:

Baseline, Weeks 12 and 24

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Scores on a scale				
least squares mean (confidence interval 95%)				
Week 12	-3.52 (-4.13 to 2.91)	-3.39 (-4.02 to 2.76)		
Week 24	-4.21 (-4.88 to 3.53)	-3.84 (-4.53 to 3.15)		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description:	
Week 24	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.451
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Point estimate	-0.37
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.34
upper limit	0.6

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description:	
Week 12	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.768
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Point estimate	-0.13
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.01
upper limit	0.74

Secondary: Change from Baseline in ASAS-HI (Ankylosing Spondyloarthritis International Society Health Index)

End point title	Change from Baseline in ASAS-HI (Ankylosing Spondyloarthritis International Society Health Index)

End point description:

The ASAS-HI is a disease-specific questionnaire that was developed based on the comprehensive International Classification of Functioning, Disability and Health Core Set (also known as the ICF Core Set) for AS. The ASAS HI is a linear composite measure and contains 17 items (dichotomous response option: “I agree” and “I do not agree”), which cover most of the ICF Core Set. The ASAS HI contains items addressing categories of pain, emotional functions, sleep, sexual function, mobility, self-care, and community life. The total sum of the ASAS HI ranges from 0 to 17, with a lower score indicating a better health status. In addition, the Environmental Factor (EF) Item Set contains items addressing categories of support/relationships, attitudes and health services. The EF Item Set contains 9 dichotomous items with an identical response option but without a sum score because of its multidimensional nature.

End point type	Secondary

End point timeframe:
Baseline, Weeks 12 and 24

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Scores on a scale				
least squares mean (confidence interval 95%)				
Week 12	-2.55 (-3.05 to 2.05)	-2.81 (-3.32 to 2.30)		
Week 24	-3.24 (-3.77 to 2.72)	-3.07 (-3.61 to 2.54)		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description: Week 24	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.666
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Point estimate	-0.17
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.92
upper limit	0.58

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description: Week 12	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.477
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Point estimate	0.26

Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.46
upper limit	0.97

Secondary: Change from Baseline in global disease assessment (patient)

End point title	Change from Baseline in global disease assessment (patient)

End point description:

The patient’s global assessment of disease activity was performed using a 100 mm (visual analog scale) VAS ranging from not severe to very severe, after the question "How active was your disease on average during the last week?” A higher score indicates more disease activity.

End point type	Secondary

End point timeframe:

Baseline, Weeks 12 and 24

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Scores on a scale				
least squares mean (confidence interval 95%)				
Week 12	-2.95 (-3.38 to 2.52)	-3.12 (-3.56 to 2.68)		
Week 24	-3.27 (-3.69 to 2.85)	-3.48 (-3.92 to 3.05)		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC

Statistical analysis description:

Week 24

Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.491
Method	Mixed models analysis
Parameter estimate	Median difference (net)
Point estimate	0.21
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.39
upper limit	0.82

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description: Week 12	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.586
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Point estimate	0.17
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.45
upper limit	0.79

Secondary: Change from Baseline in global disease assessment (physician)

End point title	Change from Baseline in global disease assessment (physician)
End point description: The physician’s global assessment of disease activity was performed using 100 mm VAS ranging from no disease activity to maximal disease activity, after the question “Considering all the ways the disease affects your patient, draw a line on the scale for how well his or her condition is today.” To enhance objectivity, the physician must not be aware of the specific patient’s global assessment of disease activity when performing his own assessment on that patient. A higher score indicates more disease activity.	
End point type	Secondary
End point timeframe: Baseline, Weeks 12 and 24	

End point values	Treat-to-Target (T2T)	Standard-of-care (SOC)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	155	149		
Units: Scores on a scale				
least squares mean (confidence interval 90%)				
Week 12	-32.46 (-35.98 to 28.94)	-36.96 (-40.60 to 33.31)		
Week 24	-35.81 (-39.34 to 32.28)	-38.54 (-42.57 to 34.89)		

Statistical analyses

Statistical analysis title	Comparison of T2T versus SOC
Statistical analysis description: Week 24	
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.292
Method	Mixed models analysis
Parameter estimate	Median difference (net)
Point estimate	2.73
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.35
upper limit	7.81

Statistical analysis title	Comparison of T2T versus SOC
Comparison groups	Treat-to-Target (T2T) v Standard-of-care (SOC)
Number of subjects included in analysis	304
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.082
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Point estimate	4.49
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.58
upper limit	9.56

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Adverse Events (AEs) were reported from first dose of study treatment until end of study treatment plus 20 weeks up to approximately 56 weeks.

Adverse event reporting additional description:

As Secukinumab 150 mg could also had been provided in the Standard-of-care arm, the number of patients at risk exceeds the number of patients enrolled in the T2T arm. For AEs that occurred while on other treatment in the SoC arm, the specific treatment information was not collected, and AEs summarized under one arm.

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	25.1

Reporting groups

Reporting group title	Secukinumab 150 mg
Reporting group description: Secukinumab 150 mg	
Reporting group title	Secukinumab 300 mg
Reporting group description: Secukinumab 300 mg	
Reporting group title	Overall
Reporting group description: Overall	
Reporting group title	Other
Reporting group description: Other	
Reporting group title	Adalimumab 40 mg
Reporting group description: Adalimumab 40 mg	

Serious adverse events	Secukinumab 150 mg	Secukinumab 300 mg	Overall
Total subjects affected by serious adverse events			
subjects affected / exposed	10 / 190 (5.26%)	4 / 92 (4.35%)	16 / 303 (5.28%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Basal cell carcinoma			
subjects affected / exposed	1 / 190 (0.53%)	1 / 92 (1.09%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 1	0 / 1	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Fibroadenoma of breast			

subjects affected / exposed	0 / 190 (0.00%)	0 / 92 (0.00%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Injury, poisoning and procedural complications			
Radius fracture			
subjects affected / exposed	0 / 190 (0.00%)	0 / 92 (0.00%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Muscle strain			
subjects affected / exposed	1 / 190 (0.53%)	0 / 92 (0.00%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Scapula fracture			
subjects affected / exposed	0 / 190 (0.00%)	0 / 92 (0.00%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Cardiac disorders			
Angina pectoris			
subjects affected / exposed	1 / 190 (0.53%)	1 / 92 (1.09%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 1	0 / 1	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Tachycardia			
subjects affected / exposed	1 / 190 (0.53%)	0 / 92 (0.00%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Coronary artery disease			
subjects affected / exposed	1 / 190 (0.53%)	1 / 92 (1.09%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 2	0 / 2	0 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nervous system disorders			
Sciatica			
subjects affected / exposed	0 / 190 (0.00%)	0 / 92 (0.00%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Pregnancy, puerperium and perinatal conditions			
Abortion spontaneous			
subjects affected / exposed	1 / 190 (0.53%)	1 / 92 (1.09%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 1	0 / 1	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Immune system disorders			
Immunisation reaction			
subjects affected / exposed	1 / 190 (0.53%)	0 / 92 (0.00%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrointestinal disorders			
Diarrhoea haemorrhagic			
subjects affected / exposed	1 / 190 (0.53%)	0 / 92 (0.00%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Skin and subcutaneous tissue disorders			
Dermatitis atopic			
subjects affected / exposed	0 / 190 (0.00%)	0 / 92 (0.00%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Musculoskeletal and connective tissue disorders			
Ankylosing spondylitis			
subjects affected / exposed	2 / 190 (1.05%)	0 / 92 (0.00%)	2 / 303 (0.66%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Osteoarthritis			
subjects affected / exposed	0 / 190 (0.00%)	0 / 92 (0.00%)	1 / 303 (0.33%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Other	Adalimumab 40 mg	
Total subjects affected by serious adverse events			
subjects affected / exposed	8 / 128 (6.25%)	5 / 116 (4.31%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	

Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Basal cell carcinoma			
subjects affected / exposed	0 / 128 (0.00%)	0 / 116 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Fibroadenoma of breast			
subjects affected / exposed	1 / 128 (0.78%)	1 / 116 (0.86%)	
occurrences causally related to treatment / all	0 / 1	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Injury, poisoning and procedural complications			
Radius fracture			
subjects affected / exposed	1 / 128 (0.78%)	0 / 116 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Muscle strain			
subjects affected / exposed	0 / 128 (0.00%)	0 / 116 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Scapula fracture			
subjects affected / exposed	1 / 128 (0.78%)	1 / 116 (0.86%)	
occurrences causally related to treatment / all	0 / 1	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cardiac disorders			
Angina pectoris			
subjects affected / exposed	0 / 128 (0.00%)	0 / 116 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Tachycardia			
subjects affected / exposed	0 / 128 (0.00%)	0 / 116 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Coronary artery disease			

subjects affected / exposed	0 / 128 (0.00%)	0 / 116 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Nervous system disorders			
Sciatica			
subjects affected / exposed	1 / 128 (0.78%)	1 / 116 (0.86%)	
occurrences causally related to treatment / all	0 / 1	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pregnancy, puerperium and perinatal conditions			
Abortion spontaneous			
subjects affected / exposed	0 / 128 (0.00%)	0 / 116 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Immune system disorders			
Immunisation reaction			
subjects affected / exposed	0 / 128 (0.00%)	1 / 116 (0.86%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Gastrointestinal disorders			
Diarrhoea haemorrhagic			
subjects affected / exposed	0 / 128 (0.00%)	0 / 116 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Skin and subcutaneous tissue disorders			
Dermatitis atopic			
subjects affected / exposed	1 / 128 (0.78%)	0 / 116 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Musculoskeletal and connective tissue disorders			
Ankylosing spondylitis			
subjects affected / exposed	2 / 128 (1.56%)	1 / 116 (0.86%)	
occurrences causally related to treatment / all	0 / 2	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Osteoarthritis			

subjects affected / exposed	1 / 128 (0.78%)	0 / 116 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

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

Non-serious adverse events	Secukinumab 150 mg	Secukinumab 300 mg	Overall
Total subjects affected by non-serious adverse events			
subjects affected / exposed	69 / 190 (36.32%)	38 / 92 (41.30%)	98 / 303 (32.34%)
Nervous system disorders			
Headache			
subjects affected / exposed	12 / 190 (6.32%)	7 / 92 (7.61%)	18 / 303 (5.94%)
occurrences (all)	13	8	20
General disorders and administration site conditions			
Fatigue			
subjects affected / exposed	7 / 190 (3.68%)	3 / 92 (3.26%)	12 / 303 (3.96%)
occurrences (all)	7	3	13
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	16 / 190 (8.42%)	9 / 92 (9.78%)	24 / 303 (7.92%)
occurrences (all)	17	10	25
Nausea			
subjects affected / exposed	12 / 190 (6.32%)	6 / 92 (6.52%)	14 / 303 (4.62%)
occurrences (all)	14	6	16
Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	7 / 190 (3.68%)	6 / 92 (6.52%)	8 / 303 (2.64%)
occurrences (all)	7	6	8
Infections and infestations			
Respiratory tract infection			
subjects affected / exposed	10 / 190 (5.26%)	3 / 92 (3.26%)	10 / 303 (3.30%)
occurrences (all)	12	3	12
Upper respiratory tract infection			
subjects affected / exposed	10 / 190 (5.26%)	6 / 92 (6.52%)	12 / 303 (3.96%)
occurrences (all)	12	8	14
Nasopharyngitis			

subjects affected / exposed	24 / 190 (12.63%)	13 / 92 (14.13%)	31 / 303 (10.23%)
occurrences (all)	28	14	38

Non-serious adverse events	Other	Adalimumab 40 mg	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	36 / 128 (28.13%)	35 / 116 (30.17%)	
Nervous system disorders			
Headache			
subjects affected / exposed	6 / 128 (4.69%)	7 / 116 (6.03%)	
occurrences (all)	6	8	
General disorders and administration site conditions			
Fatigue			
subjects affected / exposed	5 / 128 (3.91%)	6 / 116 (5.17%)	
occurrences (all)	6	6	
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	11 / 128 (8.59%)	8 / 116 (6.90%)	
occurrences (all)	11	9	
Nausea			
subjects affected / exposed	7 / 128 (5.47%)	3 / 116 (2.59%)	
occurrences (all)	8	3	
Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	0 / 128 (0.00%)	3 / 116 (2.59%)	
occurrences (all)	0	3	
Infections and infestations			
Respiratory tract infection			
subjects affected / exposed	3 / 128 (2.34%)	3 / 116 (2.59%)	
occurrences (all)	3	3	
Upper respiratory tract infection			
subjects affected / exposed	3 / 128 (2.34%)	6 / 116 (5.17%)	
occurrences (all)	3	7	
Nasopharyngitis			
subjects affected / exposed	10 / 128 (7.81%)	7 / 116 (6.03%)	
occurrences (all)	14	8	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
10 February 2021	The main purpose of this amendment was to remove the planned IA that became obsolete due to availability of secukinumab data that fully supported the assumptions for the initial sample size calculation.
19 May 2021	The main purpose of this amendment was to incorporate two novel components into the protocol: Patient pain diary and Companion app.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported