



## Clinical trial results:

**A three-part randomized, double-blind, placebo-controlled study to investigate the efficacy and safety of secukinumab treatment in Juvenile Idiopathic arthritis subtypes of psoriatic and enthesitis-related arthritis.**

### Summary

EudraCT number	2016-003761-26
Trial protocol	DE GB ES BE PL IT
Global end of trial date	09 November 2020

### Results information

Result version number	v1 (current)
This version publication date	23 May 2021
First version publication date	23 May 2021

### Trial information

#### Trial identification

Sponsor protocol code	CAIN457F2304
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#### Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03031782
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)	Yes
EMA paediatric investigation plan number(s)	EMEA-000380-PIP02-09
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?	Yes

Notes:

## Results analysis stage

Analysis stage	Final
Date of interim/final analysis	12 March 2021
Is this the analysis of the primary completion data?	No
Global end of trial reached?	Yes
Global end of trial date	09 November 2020
Was the trial ended prematurely?	No

Notes:

## General information about the trial

Main objective of the trial:

To demonstrate that the time to flare in TP2 is longer with secukinumab for combined ERA and JPsA groups than with placebo

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	23 May 2017
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	Belgium: 4
Country: Number of subjects enrolled	Germany: 16
Country: Number of subjects enrolled	United Kingdom: 8
Country: Number of subjects enrolled	Italy: 2
Country: Number of subjects enrolled	Poland: 4
Country: Number of subjects enrolled	Russian Federation: 18
Country: Number of subjects enrolled	South Africa: 5
Country: Number of subjects enrolled	Spain: 6
Country: Number of subjects enrolled	Turkey: 17
Country: Number of subjects enrolled	United States: 6
Worldwide total number of subjects	86
EEA total number of subjects	32

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)	25
Adolescents (12-17 years)	61
Adults (18-64 years)	0
From 65 to 84 years	0
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details:

86 subjects entered TP1

### Pre-assignment

Screening details:

AIN457 treatment group was all subjects who did not take any placebo before or during the period.

Placebo in TP2 refers to all subjects who took placebo in TP2 and secukinumab in other periods. For ease of reading,

### Period 1

Period 1 title	Treatment Period 1
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

Blinding implementation details:

Open-label: 86 subjects were enrolled in TP1 and 83 subjects (96.5%) of them completed TP1. The reason for discontinuing during TP1 was lack of efficacy (3 subjects). Eight (8) subjects who were JIA ACR 30 non-responders at the end of TP1, hence were discontinued and had their early termination visit. 75 JIA ACR 30 responders in TP1 were randomized to secukinumab (37 subjects) or placebo (38 subjects).

### Arms

Arm title	AIN457 TP1
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Arm description:

secukinumab in all 3 periods

Arm type	Experimental
Investigational medicinal product name	secukinumab
Investigational medicinal product code	AIN457
Other name	Open-label
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Secukinumab 75 mg or 150 mg subcutaneous injection

Number of subjects in period 1	AIN457 TP1
Started	86
Completed	83
Not completed	3
Lack of efficacy	3

**Period 2**

Period 2 title	Treatment Period 2
Is this the baseline period?	No
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator, Monitor, Data analyst, Carer, Assessor

## Blinding implementation details:

Of these 75, 67 (89.3%) completed TP2, and 8 discontinued during TP2 (6 subjects [16.2%] in the secukinumab, and 2 [5.3%] in placebo group). Of the 6 who discontinued, 3 discontinued due to subject/guardian decision, and 1 each discontinued due to AE, lack of efficacy and physician decision. Both subjects in placebo group who discontinued during TP2, discontinued due to AEs. Subjects without disease flare remained in TP2 for duration of study and completed without entering TP3 (35 subjects).

**Arms**

Are arms mutually exclusive?	No
<b>Arm title</b>	AIN457 TP2

## Arm description:

secukinumab in all 3 periods

Arm type	Experimental
Investigational medicinal product name	secukinumab
Investigational medicinal product code	AIN457
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

## Dosage and administration details:

Secukinumab 75 mg or 150 mg subcutaneous injection

<b>Arm title</b>	Placebo TP2
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## Arm description:

Placebo for treatment period 2

Arm type	Placebo
Investigational medicinal product name	Placebo TP2
Investigational medicinal product code	Placebo
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

## Dosage and administration details:

75 mg or 150 mg subcutaneous injection

<b>Number of subjects in period 2</b>	AIN457 TP2	Placebo TP2
Started	37	38
Completed	31	36
Not completed	6	2
Physician decision	1	-
Consent withdrawn by subject	3	-
Adverse event, non-fatal	1	2
Lack of efficacy	1	-

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**Period 3**

Period 3 title	Treatment Period 3
Is this the baseline period?	No
Allocation method	Not applicable
Blinding used	Not blinded

## Blinding implementation details:

Open-label: 32 subjects entered TP3. Of these, 26 completed TP3 and 6 discontinued prior to week 104. 3 discontinued TP3 due to AEs. The 32 subjects who entered TP3 included 2 who were erroneously switched into TP3 but had no flare at TP2. These 2 were considered as not having flared for efficacy analysis. 1 subject flared on Day 127 at TP2 discontinuation visit; and was discontinued due to SAE and did not enter TP3. Subject was considered as having flared for efficacy analysis for time to flare

**Arms**

<b>Arm title</b>	AIN457 TP3
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## Arm description:

secukinumab in all 3 periods

Arm type	Experimental
Investigational medicinal product name	secukinumab
Investigational medicinal product code	AIN457
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

## Dosage and administration details:

Secukinumab 75 mg or 150 mg subcutaneous injection

<b>Number of subjects in period 3</b>	AIN457 TP3
Started	11
Completed	10
Not completed	1
Consent withdrawn by subject	1

## Baseline characteristics

### Reporting groups

Reporting group title	AIN457 TP1
Reporting group description: secukinumab in all 3 periods	

Reporting group values	AIN457 TP1	Total	
Number of subjects	86	86	
Age Categorical			
Units: participants			
<=18 years	86	86	
Between 18 and 65 years	0	0	
>=65 years	0	0	
Age Continuous			
Mean age of participants in years ERA + JPsA = Total			
Units: years			
arithmetic mean	13.1		
standard deviation	± 3.13	-	
Sex: Female, Male			
ERA + JPsA = Total			
Units:			
JIA Category: ERA Female	11	11	
JIA Category: JPsA Female	18	18	
JIA Category: ERA Male	41	41	
JIA Category: JPsA Male	16	16	
Race (NIH/OMB)			
ERA + JPsA = Total Unknown or Not Reported Row also means "Other" (none of the above)			
Units: Subjects			
JIA Category: ERA American Indian/Alaska Native	0	0	
JIA Category: JPsA American Indian/Alaska Native	0	0	
JIA Category: ERA Asian	0	0	
JIA Category: JPsA Asian	1	1	
JIA Category: ERA Hawaiian/Pacific Islander	0	0	
JIA Category: JPsA Hawaiian/Pacific Islander	0	0	
JIA Category: ERA Black or African American	0	0	
JIA Category: JPsA Black or African American	0	0	
JIA Category: ERA White	51	51	
JIA Category: JPsA White	31	31	
JIA Category: ERA More than one race	0	0	
JIA Category: JPsA More than one race	0	0	
JIA Category: ERA Unknown or Not Reported	1	1	

JIA Category: JPsA Unknown or Not Reported	2	2	
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Age Continuous			
Mean age of participants in years ERA + JPsA = Total			
Units: years			
arithmetic mean	13.1		
standard deviation	± 3.13	-	

### Subject analysis sets

Subject analysis set title	AIN457 in TP1
Subject analysis set type	Full analysis

Subject analysis set description:

to week 12

TP1 open-label: Secukinumab 75 mg or 150 mg based on the body weight (<50 kg or >= 50 kg) was administered s.c. At Week 12 (end of TP1), subject's response to study drug was determined (responders entered TP2 and non-responders entered post-treatment follow-up)

Subject analysis set title	AIN457 in TP2
Subject analysis set type	Full analysis

Subject analysis set description:

TP2 treatment withdrawal: Secukinumab (AIN457 - pre-filled syringe) for patients with a minimum American college of Rheumatology (ACR) 30 response at end of Treatment Period 1

Subject analysis set title	Placebo in TP2
Subject analysis set type	Full analysis

Subject analysis set description:

Placebo s.c. in double-blind Treatment Period 2: all subjects who took placebo in TP2 and AIN457 in other period/s with minimum ACR30 at end of TP1

Reporting group values	AIN457 in TP1	AIN457 in TP2	Placebo in TP2
Number of subjects	86	37	38
Age Categorical			
Units: participants			
<=18 years	86	37	38
Between 18 and 65 years	0	0	0
>=65 years	0	0	0
Age Continuous			
Mean age of participants in years ERA + JPsA = Total			
Units: years			
arithmetic mean	13.7	14.0	13.0
standard deviation	± 2.62	± 2.46	± 2.94
Sex: Female, Male			
ERA + JPsA = Total			
Units:			
JIA Category: ERA Female	11	4	4
JIA Category: JPsA Female	18	9	7
JIA Category: ERA Male	41	18	18
JIA Category: JPsA Male	16	6	9
Race (NIH/OMB)			
ERA + JPsA = Total Unknown or Not Reported Row also means "Other" (none of the above)			
Units: Subjects			

JIA Category: ERA American Indian/Alaska Native	0	0	0
JIA Category: JPsA American Indian/Alaska Native	0	0	0
JIA Category: ERA Asian	0	0	0
JIA Category: JPsA Asian	1	0	1
JIA Category: ERA Hawaiian/Pacific Islander	0	0	0
JIA Category: JPsA Hawaiian/Pacific Islander	0	0	0
JIA Category: ERA Black or African American	0	0	0
JIA Category: JPsA Black or African American	0	0	0
JIA Category: ERA White	51	22	21
JIA Category: JPsA White	31	14	14
JIA Category: ERA More than one race	0	0	0
JIA Category: JPsA More than one race	0	0	0
JIA Category: ERA Unknown or Not Reported	1	0	1
JIA Category: JPsA Unknown or Not Reported	2	1	1
Age Continuous			
Mean age of participants in years ERA + JPsA = Total			
Units: years			
arithmetic mean	12.2	13.1	10.6
standard deviation	± 3.66	± 3.14	± 3.70

## End points

### End points reporting groups

Reporting group title	AIN457 TP1
Reporting group description: secukinumab in all 3 periods	
Reporting group title	AIN457 TP2
Reporting group description: secukinumab in all 3 periods	
Reporting group title	Placebo TP2
Reporting group description: Placebo for treatment period 2	
Reporting group title	AIN457 TP3
Reporting group description: secukinumab in all 3 periods	
Subject analysis set title	AIN457 in TP1
Subject analysis set type	Full analysis
Subject analysis set description: to week 12 TP1 open-label: Secukinumab 75 mg or 150 mg based on the body weight (<50 kg or >= 50 kg) was administered s.c. At Week 12 (end of TP1), subject's response to study drug was determined (responders entered TP2 and non-responders entered post-treatment follow-up)	
Subject analysis set title	AIN457 in TP2
Subject analysis set type	Full analysis
Subject analysis set description: TP2 treatment withdrawal: Secukinumab (AIN457 - pre-filled syringe) for patients with a minimum American college of Rheumatology (ACR) 30 response at end of Treatment Period 1	
Subject analysis set title	Placebo in TP2
Subject analysis set type	Full analysis
Subject analysis set description: Placebo s.c. in double-blind Treatment Period 2: all subjects who took placebo in TP2 and AIN457 in other period/s with minimum ACR30 at end of TP1	

### Primary: Number of flares per participant in Treatment Period 2 - total

End point title	Number of flares per participant in Treatment Period 2 - total
End point description: Survival analysis of time to flare in treatment period 2 (TP2) FAS2  ERA + JPsA = total	
End point type	Primary
End point timeframe: From Week 12 until max Week 104	

End point values	AIN457 in TP2	Placebo in TP2		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	37	38		
Units: days				
number (not applicable)	0.27	0.55		

## Statistical analyses

<b>Statistical analysis title</b>	Flares per participant in TP2
Statistical analysis description: Survival analysis of time to flare - TP2 (FAS2)	
Comparison groups	AIN457 in TP2 v Placebo in TP2
Number of subjects included in analysis	75
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	Logrank
Parameter estimate	Cox proportional hazard
Point estimate	0.28
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.13
upper limit	0.63

## Secondary: Percent of participants with Juvenile idiopathic arthritis (JIA) American college of rheumatology (ACR) 30/50/70/90/100 response at week 12 - by JIA category

End point title	Percent of participants with Juvenile idiopathic arthritis (JIA) American college of rheumatology (ACR) 30/50/70/90/100 response at week 12 - by JIA category
End point description: Summary of JIA ACR 30/50/70/90/100 for all subjects and each JIA category – TP1 (FAS1)  The adapted ACR Pediatric 30/50/70/90/100 criteria was used to determine efficacy defined as improvement from baseline of at least 30/50/70/90/100% respectively in at least 3 of the following 6 components - Physician's Global Assessment of disease activity on a 0-100 mm VAS from 0 mm = no disease activity to 100 mm = very severe disease activity. - Parent's or patient's Global Assessment of Subject's overall wellbeing on a 0-100 mm VAS from 0 mm= very well to 100 mm= very poor. - Functional ability: Childhood Health Assessment Questionnaire (CHAQ©) - Number of joints with active arthritis using the ACR definition (The ACR definition of active arthritis is any joint with swelling, or in the absence of swelling, limitation of motion accompanied by either pain on motion or tenderness not due to deformity) - Number of joints with limitation of motion - Laboratory measure of inflammation: CRP (mg/L)	
End point type	Secondary
End point timeframe: baseline, week 12	

<b>End point values</b>	AIN457 TP1	AIN457 in TP1		
Subject group type	Reporting group	Subject analysis set		
Number of subjects analysed	86 <sup>[1]</sup>	86		
Units: percent of participants				
number (confidence interval 95%)				
ACR 30 ERA	86.3 (73.1 to 93.8)	86.3 (73.1 to 93.8)		
ACR 50 ERA	80.4 (66.5 to 89.7)	80.4 (66.5 to 89.7)		
ACR 70 ERA	66.7 (52.0 to 78.9)	66.7 (52.0 to 78.9)		
ACR 90 ERA	33.3 (21.1 to 48.0)	33.3 (21.1 to 48.0)		
ACR 100 ERA	27.5 (16.3 to 42.0)	27.5 (16.3 to 42.0)		
ACR 30 JPsA	96.9 (82.0 to 99.8)	96.9 (82.0 to 99.8)		
ACR 50 JPsA	96.9 (82.0 to 99.8)	96.9 (82.0 to 99.8)		
ACR 70 JPsA	75.0 (56.2 to 87.9)	75.0 (56.2 to 87.9)		
ACR 90 JPsA	50.0 (32.2 to 67.8)	50.0 (32.2 to 67.8)		
ACR 100 JPsA	21.9 (9.9 to 40.4)	21.9 (9.9 to 40.4)		

Notes:

[1] - ERA + JPsA=Total, 52+34=86

## Statistical analyses

No statistical analyses for this end point

### Secondary: Percent of Participants with Juvenile idiopathic arthritis (JIA) American college of rheumatology (ACR) 30/50/70/90/100 response at week 12 - total

End point title	Percent of Participants with Juvenile idiopathic arthritis (JIA) American college of rheumatology (ACR) 30/50/70/90/100 response at week 12 - total
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End point description:

Summary of JIA ACR 30/50/70/90/100 for all subjects – TP1 (FAS1)

The adapted ACR Pediatric 30/50/70/90/100 criteria was used to determine efficacy defined as improvement from baseline of at least 30/50/70/90/100% respectively in at least 3 of the following 6 components

- Physician's Global Assessment of disease activity on a 0-100 mm VAS from 0 mm = no disease activity to 100 mm = very severe disease activity.
- Parent's or patient's Global Assessment of Subject's overall wellbeing on a 0-100 mm VAS from 0 mm= very well to 100 mm= very poor.
- Functional ability: Childhood Health Assessment Questionnaire (CHAQ©)
- Number of joints with active arthritis using the ACR definition (The ACR definition of active arthritis is any joint with swelling, or in the absence of swelling, limitation of motion accompanied by either pain on motion or tenderness not due to deformity)
- Number of joints with limitation of motion
- Laboratory measure of inflammation: CRP (mg/L)

End point type	Secondary
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End point timeframe:

baseline, week 12

<b>End point values</b>	AIN457 TP1	AIN457 in TP1		
Subject group type	Reporting group	Subject analysis set		
Number of subjects analysed	86	86		
Units: percent of participants				
number (confidence interval 95%)				
ACR 30	90.4 (81.4 to 95.4)	90.4 (81.4 to 95.4)		
ACR 50	86.7 (77.1 to 92.9)	86.7 (77.1 to 92.9)		
ACR 70	69.9 (58.7 to 79.2)	69.9 (58.7 to 79.2)		
ACR 90	39.8 (29.4 to 51.1)	39.8 (29.4 to 51.1)		
ACR 100	25.3 (16.7 to 36.2)	25.3 (16.7 to 36.2)		

### Statistical analyses

No statistical analyses for this end point

### Secondary: Percent Change from baseline for JIA ACR core components in TP1

End point title	Percent Change from baseline for JIA ACR core components in TP1
End point description:	
Summary of JIA ACR core components for all subjects and each JIA category – Treatment period 1	
Negative percent change indicates improvement	
Physician global assessment of disease activity (VAS mm) 0 (no disease activity) - 100 (very severe); Parent or subject global assessment of overall well-being (VAS mm) 0 (very well) - 100 (very poor); CHAQ (Childhood Health Assessment Questionnaire) 0 - 3 (most severe); Number of joints with active arthritis 0 - 73; Number of joints with limited range of motion 0 - 69.	
End point type	Secondary
End point timeframe:	
baseline, week 12	

<b>End point values</b>	AIN457 in TP1			
Subject group type	Subject analysis set			
Number of subjects analysed	86			
Units: percent change				
arithmetic mean (standard deviation)				
physician global assessment of disease activity	-77.4 (± 22.67)			
parent/subject global assessment of well-being	-53.1 (± 58.43)			

functional ability (CHAQ)	-53.776 ( $\pm$ 70.5034)			
number of joints with active arthritis	-79.3 ( $\pm$ 34.86)			
number of joints with limited range of motion	-72.5 ( $\pm$ 38.19)			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Percent Change in C-reactive protein standardized value (mg/L)

End point title	Percent Change in C-reactive protein standardized value (mg/L)
End point description: Median Percent Change from baseline for C-reactive protein standardized value (mg/L)	
End point type	Secondary
End point timeframe: baseline, week 12	

<b>End point values</b>	AIN457 in TP1			
Subject group type	Subject analysis set			
Number of subjects analysed	82			
Units: percent change				
median (standard deviation)	-13.587 ( $\pm$ 227.6901)			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Change from baseline Juvenile Arthritis Disease Activity Score (JADAS) score

End point title	Change from baseline Juvenile Arthritis Disease Activity Score (JADAS) score
End point description: JADAS change from baseline for all subjects in Treatment period 1. JADAS-27 (Juvenile Arthritis Disease Activity Score in 27 joints) ranges from 0 to 57 and JADAS-71 ranges from 0 to 101 (higher scores indicate more disease activity).	
End point type	Secondary
End point timeframe: 12 weeks	

<b>End point values</b>	AIN457 in TP1			
Subject group type	Subject analysis set			
Number of subjects analysed	86			
Units: score				
arithmetic mean (standard deviation)				
JADAS-27	-10.487 ( $\pm$ 7.2262)			
JADAS-71	-13.403 ( $\pm$ 9.7300)			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Change from baseline in total enthesitis count - TP1 (FAS1)

End point title	Change from baseline in total enthesitis count - TP1 (FAS1)
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End point description:

Enthesitis swollen joint count range is 0-16. Zero is worst, and 16 is best

A total of 16 enthesial sites were assessed for the presence or absence of tenderness of enthesitis. This is the mean (SD) enthesitis count (range 0-16) for FAS subjects

A zero score for wither would mean they have no enthesitis, so a zero score is better for the patient

End point type	Secondary
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End point timeframe:

Baseline and week 12

<b>End point values</b>	AIN457 in TP1			
Subject group type	Subject analysis set			
Number of subjects analysed	83			
Units: enthesitis count				
arithmetic mean (standard deviation)	-1.8 ( $\pm$ 2.31)			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Change from baseline in total dactylitis count

End point title	Change from baseline in total dactylitis count
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End point description:

Summary of total dactylitis count for all subjects and each JIA category – TP1 (FAS1)

Total dactylitis count ranges from 0 to 20. A zero score would mean they have no dactylitis, so a zero score is better for the patient

Mean (SD) total dactylitis count of the number of fingers and toes

End point type	Secondary
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End point timeframe:  
baseline, week 12

<b>End point values</b>	AIN457 in TP1			
Subject group type	Subject analysis set			
Number of subjects analysed	78			
Units: dactylitis count				
arithmetic mean (standard deviation)	-0.8 ( $\pm$ 1.83)			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Number of participants with anti-secukinumab antibodies

End point title	Number of participants with anti-secukinumab antibodies
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End point description:

Blood samples for immunogenicity (anti-AIN457 antibodies) were taken pre-dose at the scheduled time points. In addition, if a subject discontinued from the study at any time, he/she provided a sample at the last visit. All blood samples were taken by either direct venipuncture or an indwelling cannula inserted in a forearm vein. An Electrochemiluminescence method was used for the detection of potential anti-secukinumab antibody formation.

No treatment emergent anti-drug antibodies (ADA) were detected in any sample of subjects of the secukinumab treatment groups. One subject was ADA-positive at Baseline only and negative during treatment.

End point type	Secondary
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End point timeframe:  
104 weeks

<b>End point values</b>	AIN457 in TP1			
Subject group type	Subject analysis set			
Number of subjects analysed	86			
Units: participants	0			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Secukinumab serum concentration

End point title	Secukinumab serum concentration
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End point description:

Summary of pharmacokinetic concentrations – Treatment period 1

End point type	Secondary
End point timeframe: baseline, week 12	

<b>End point values</b>	AIN457 in TP1			
Subject group type	Subject analysis set			
Number of subjects analysed	86			
Units: mcg/mL				
arithmetic mean (standard deviation)				
<50 kg	30.9 (± 12.9)			
≥50 kg	34.6 (± 11.2)			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Number of participants with inactive disease status for all subjects – TP1 (FAS1)

End point title	Number of participants with inactive disease status for all subjects – TP1 (FAS1)
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End point description:

Summary of inactive disease status for all subjects – TP1 (FAS1)

Clinical inactive disease definition was adapted from the JIA ACR criteria.

All were required to be met:

- No joints with active arthritis
- No uveitis
- CRP value within normal limits for the laboratory where tested or, if elevated, not attributable to JIA
- Physician's global assessment of disease activity score ≤ 10mm
- Duration of morning stiffness attributable to JIA ≤15 min

End point type	Secondary
End point timeframe: week 12	

<b>End point values</b>	AIN457 in TP1			
Subject group type	Subject analysis set			
Number of subjects analysed	83			
Units: participants				
number (confidence interval 95%)	30 (26.1 to 47.5)			

## **Statistical analyses**

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No statistical analyses for this end point

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

Adverse events (AEs) were collected from first dose of study treatment until end of study treatment plus 12 weeks post treatment, up to maximum duration of 116 weeks.

Adverse event reporting additional description:

AEs are any untoward sign or symptom that occurred during the study treatment period

Assessment type	Systematic
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### Dictionary used

Dictionary name	MedDRA
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Dictionary version	23.1
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### Reporting groups

Reporting group title	AIN457
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Reporting group description:

AIN457

Reporting group title	Placebo in TP2
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Reporting group description:

Placebo in TP2

Reporting group title	Total
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Reporting group description:

Total

<b>Serious adverse events</b>	AIN457	Placebo in TP2	Total
Total subjects affected by serious adverse events			
subjects affected / exposed	7 / 48 (14.58%)	4 / 38 (10.53%)	11 / 86 (12.79%)
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)			
Cholesteatoma			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Injury, poisoning and procedural complications			
Abdominal injury			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
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			
Crohn's disease			

subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences causally related to treatment / all	1 / 1	0 / 0	1 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Food poisoning			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory, thoracic and mediastinal disorders			
Adenoidal hypertrophy			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Musculoskeletal and connective tissue disorders			
Juvenile psoriatic arthritis			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences causally related to treatment / all	0 / 0	1 / 1	1 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
Acute sinusitis			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Appendicitis			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Folliculitis			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pilonidal cyst			

subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Pneumonia</b>			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Postoperative wound infection</b>			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Tonsillitis</b>			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

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

<b>Non-serious adverse events</b>	AIN457	Placebo in TP2	Total
<b>Total subjects affected by non-serious adverse events</b>			
subjects affected / exposed	44 / 48 (91.67%)	35 / 38 (92.11%)	79 / 86 (91.86%)
<b>Neoplasms benign, malignant and unspecified (incl cysts and polyps)</b>			
<b>Papilloma</b>			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
<b>Skin papilloma</b>			
subjects affected / exposed	3 / 48 (6.25%)	0 / 38 (0.00%)	3 / 86 (3.49%)
occurrences (all)	3	0	3
<b>Vascular disorders</b>			
<b>Cyanosis</b>			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
<b>Hot flush</b>			

subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
General disorders and administration site conditions			
Administration site reaction			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	2	2
Fatigue			
subjects affected / exposed	1 / 48 (2.08%)	2 / 38 (5.26%)	3 / 86 (3.49%)
occurrences (all)	2	2	4
Feeling hot			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Injection site erythema			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Injection site pain			
subjects affected / exposed	2 / 48 (4.17%)	1 / 38 (2.63%)	3 / 86 (3.49%)
occurrences (all)	23	1	24
Injection site pruritus			
subjects affected / exposed	1 / 48 (2.08%)	1 / 38 (2.63%)	2 / 86 (2.33%)
occurrences (all)	1	1	2
Injection site reaction			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Medical device pain			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Non-cardiac chest pain			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Pain			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Peripheral swelling			

subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 2	1 / 38 (2.63%) 1	2 / 86 (2.33%) 3
Pyrexia subjects affected / exposed occurrences (all)	6 / 48 (12.50%) 10	6 / 38 (15.79%) 10	12 / 86 (13.95%) 20
Immune system disorders Mite allergy subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Seasonal allergy subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Social circumstances Sexual abuse subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Reproductive system and breast disorders Dysmenorrhoea subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	2 / 38 (5.26%) 2	2 / 86 (2.33%) 2
Gynaecomastia subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Menstruation irregular subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Scrotal pain subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	1 / 38 (2.63%) 1	2 / 86 (2.33%) 2
Testicular pain subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 3	0 / 38 (0.00%) 0	1 / 86 (1.16%) 3
Varicocele subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Respiratory, thoracic and mediastinal disorders			

Asthma			
subjects affected / exposed	2 / 48 (4.17%)	0 / 38 (0.00%)	2 / 86 (2.33%)
occurrences (all)	2	0	2
Cough			
subjects affected / exposed	8 / 48 (16.67%)	5 / 38 (13.16%)	13 / 86 (15.12%)
occurrences (all)	10	6	16
Dyspnoea			
subjects affected / exposed	1 / 48 (2.08%)	1 / 38 (2.63%)	2 / 86 (2.33%)
occurrences (all)	2	4	6
Epistaxis			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Haemoptysis			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Oropharyngeal pain			
subjects affected / exposed	7 / 48 (14.58%)	5 / 38 (13.16%)	12 / 86 (13.95%)
occurrences (all)	11	13	24
Pharyngeal erythema			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Productive cough			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Respiratory disorder			
subjects affected / exposed	2 / 48 (4.17%)	1 / 38 (2.63%)	3 / 86 (3.49%)
occurrences (all)	2	1	3
Rhinitis allergic			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Rhinorrhoea			
subjects affected / exposed	1 / 48 (2.08%)	1 / 38 (2.63%)	2 / 86 (2.33%)
occurrences (all)	1	3	4
Psychiatric disorders			
Anxiety			

subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Depressed mood			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Distractibility			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Euphoric mood			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Intentional self-injury			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	2	2
Mental disorder			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Post-traumatic stress disorder			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Investigations			
Alanine aminotransferase increased			
subjects affected / exposed	4 / 48 (8.33%)	0 / 38 (0.00%)	4 / 86 (4.65%)
occurrences (all)	4	0	4
Aspartate aminotransferase increased			
subjects affected / exposed	3 / 48 (6.25%)	1 / 38 (2.63%)	4 / 86 (4.65%)
occurrences (all)	3	1	4
Blood alkaline phosphatase increased			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Blood calcium increased			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Blood creatinine increased			

subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Blood glucose increased subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Blood phosphorus increased subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Blood pressure systolic increased subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Blood triglycerides increased subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Blood uric acid increased subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Body temperature increased subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
C-reactive protein increased subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 2	1 / 86 (1.16%) 2
Eosinophil count increased subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Hepatic enzyme increased subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Liver function test increased subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Lymphocyte count decreased subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Neutrophil count decreased			

subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	1 / 38 (2.63%) 1	2 / 86 (2.33%) 2
Platelet count increased subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Transaminases increased subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	2 / 38 (5.26%) 2	3 / 86 (3.49%) 3
Weight increased subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
White blood cell count decreased subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 2	0 / 38 (0.00%) 0	1 / 86 (1.16%) 2
White blood cells urine positive subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Injury, poisoning and procedural complications			
Arthropod bite subjects affected / exposed occurrences (all)	2 / 48 (4.17%) 2	2 / 38 (5.26%) 2	4 / 86 (4.65%) 4
Concussion subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Contusion subjects affected / exposed occurrences (all)	2 / 48 (4.17%) 3	4 / 38 (10.53%) 5	6 / 86 (6.98%) 8
Fall subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	2 / 38 (5.26%) 3	2 / 86 (2.33%) 3
Foot fracture subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Gingival injury			

subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Hand fracture			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Injection related reaction			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Joint injury			
subjects affected / exposed	1 / 48 (2.08%)	4 / 38 (10.53%)	5 / 86 (5.81%)
occurrences (all)	1	5	6
Ligament rupture			
subjects affected / exposed	1 / 48 (2.08%)	1 / 38 (2.63%)	2 / 86 (2.33%)
occurrences (all)	1	1	2
Ligament sprain			
subjects affected / exposed	3 / 48 (6.25%)	3 / 38 (7.89%)	6 / 86 (6.98%)
occurrences (all)	5	3	8
Muscle strain			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Overdose			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Radius fracture			
subjects affected / exposed	0 / 48 (0.00%)	3 / 38 (7.89%)	3 / 86 (3.49%)
occurrences (all)	0	4	4
Road traffic accident			
subjects affected / exposed	1 / 48 (2.08%)	1 / 38 (2.63%)	2 / 86 (2.33%)
occurrences (all)	1	1	2
Skin abrasion			
subjects affected / exposed	2 / 48 (4.17%)	1 / 38 (2.63%)	3 / 86 (3.49%)
occurrences (all)	3	1	4
Skin laceration			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Sunburn			

subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Tendon injury subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Thermal burn subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Venomous sting subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
<b>Congenital, familial and genetic disorders</b>			
Gilbert's syndrome subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Hydrocele subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
<b>Cardiac disorders</b>			
Sinus bradycardia subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Tachycardia subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Ventricular extrasystoles subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
<b>Nervous system disorders</b>			
Dizziness subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Epilepsy subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Headache			

subjects affected / exposed occurrences (all)	6 / 48 (12.50%) 12	6 / 38 (15.79%) 7	12 / 86 (13.95%) 19
Nerve compression subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Tremor subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Visual field defect subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 2	1 / 86 (1.16%) 2
<b>Blood and lymphatic system disorders</b>			
Anaemia subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Iron deficiency anaemia subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	1 / 38 (2.63%) 2	2 / 86 (2.33%) 3
Leukopenia subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	2 / 38 (5.26%) 2	2 / 86 (2.33%) 2
Lymph node pain subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 2	1 / 86 (1.16%) 2
Lymphopenia subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 3	1 / 86 (1.16%) 3
Neutropenia subjects affected / exposed occurrences (all)	2 / 48 (4.17%) 2	2 / 38 (5.26%) 2	4 / 86 (4.65%) 4
Splenomegaly subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Ear and labyrinth disorders Ear disorder			

subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Ear pain subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 2	2 / 38 (5.26%) 2	3 / 86 (3.49%) 4
Vertigo subjects affected / exposed occurrences (all)	2 / 48 (4.17%) 3	1 / 38 (2.63%) 4	3 / 86 (3.49%) 7
Eye disorders			
Conjunctivitis allergic subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	1 / 38 (2.63%) 1	2 / 86 (2.33%) 2
Eye haematoma subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Eye pain subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Myopia subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Ocular hyperaemia subjects affected / exposed occurrences (all)	2 / 48 (4.17%) 2	0 / 38 (0.00%) 0	2 / 86 (2.33%) 2
Uveitis subjects affected / exposed occurrences (all)	2 / 48 (4.17%) 3	0 / 38 (0.00%) 0	2 / 86 (2.33%) 3
Gastrointestinal disorders			
Abdominal distension subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Abdominal pain subjects affected / exposed occurrences (all)	2 / 48 (4.17%) 2	6 / 38 (15.79%) 8	8 / 86 (9.30%) 10
Abdominal pain upper			

subjects affected / exposed	3 / 48 (6.25%)	2 / 38 (5.26%)	5 / 86 (5.81%)
occurrences (all)	4	6	10
Aphthous ulcer			
subjects affected / exposed	4 / 48 (8.33%)	1 / 38 (2.63%)	5 / 86 (5.81%)
occurrences (all)	5	1	6
Constipation			
subjects affected / exposed	1 / 48 (2.08%)	1 / 38 (2.63%)	2 / 86 (2.33%)
occurrences (all)	1	1	2
Diarrhoea			
subjects affected / exposed	11 / 48 (22.92%)	6 / 38 (15.79%)	17 / 86 (19.77%)
occurrences (all)	14	12	26
Dyspepsia			
subjects affected / exposed	2 / 48 (4.17%)	2 / 38 (5.26%)	4 / 86 (4.65%)
occurrences (all)	2	2	4
Dysphagia			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Functional gastrointestinal disorder			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Gastritis			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Gastrooesophageal reflux disease			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Lip disorder			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Malpositioned teeth			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Mouth ulceration			
subjects affected / exposed	2 / 48 (4.17%)	0 / 38 (0.00%)	2 / 86 (2.33%)
occurrences (all)	3	0	3
Nausea			

subjects affected / exposed occurrences (all)	11 / 48 (22.92%) 17	8 / 38 (21.05%) 16	19 / 86 (22.09%) 33
Noninfective gingivitis subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Odynophagia subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Oral mucosal blistering subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Salivary hypersecretion subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Toothache subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	1 / 38 (2.63%) 1	2 / 86 (2.33%) 2
Vomiting subjects affected / exposed occurrences (all)	5 / 48 (10.42%) 9	4 / 38 (10.53%) 12	9 / 86 (10.47%) 21
Hepatobiliary disorders Nonalcoholic fatty liver disease subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	1 / 38 (2.63%) 1	2 / 86 (2.33%) 2
Skin and subcutaneous tissue disorders Acne subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	5 / 38 (13.16%) 5	6 / 86 (6.98%) 6
Alopecia subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	2 / 38 (5.26%) 2	3 / 86 (3.49%) 3
Blister subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Dermatitis			

subjects affected / exposed	1 / 48 (2.08%)	1 / 38 (2.63%)	2 / 86 (2.33%)
occurrences (all)	1	1	2
Dermatitis contact			
subjects affected / exposed	1 / 48 (2.08%)	1 / 38 (2.63%)	2 / 86 (2.33%)
occurrences (all)	2	1	3
Diffuse alopecia			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Dry skin			
subjects affected / exposed	2 / 48 (4.17%)	0 / 38 (0.00%)	2 / 86 (2.33%)
occurrences (all)	2	0	2
Dyshidrotic eczema			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Eczema			
subjects affected / exposed	2 / 48 (4.17%)	1 / 38 (2.63%)	3 / 86 (3.49%)
occurrences (all)	2	1	3
Erythema			
subjects affected / exposed	0 / 48 (0.00%)	2 / 38 (5.26%)	2 / 86 (2.33%)
occurrences (all)	0	3	3
Exfoliative rash			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Hyperhidrosis			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Ingrowing nail			
subjects affected / exposed	0 / 48 (0.00%)	2 / 38 (5.26%)	2 / 86 (2.33%)
occurrences (all)	0	2	2
Pruritus			
subjects affected / exposed	2 / 48 (4.17%)	2 / 38 (5.26%)	4 / 86 (4.65%)
occurrences (all)	3	2	5
Psoriasis			
subjects affected / exposed	0 / 48 (0.00%)	4 / 38 (10.53%)	4 / 86 (4.65%)
occurrences (all)	0	4	4
Rash			

subjects affected / exposed occurrences (all)	2 / 48 (4.17%) 2	2 / 38 (5.26%) 4	4 / 86 (4.65%) 6
Skin erosion subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Skin plaque subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Skin striae subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Urticaria subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	2 / 38 (5.26%) 3	3 / 86 (3.49%) 4
Renal and urinary disorders			
Haematuria subjects affected / exposed occurrences (all)	3 / 48 (6.25%) 5	0 / 38 (0.00%) 0	3 / 86 (3.49%) 5
Proteinuria subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Renal colic subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Musculoskeletal and connective tissue disorders			
Arthralgia subjects affected / exposed occurrences (all)	8 / 48 (16.67%) 17	4 / 38 (10.53%) 7	12 / 86 (13.95%) 24
Arthritis subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	1 / 38 (2.63%) 1	2 / 86 (2.33%) 2
Back pain subjects affected / exposed occurrences (all)	4 / 48 (8.33%) 8	3 / 38 (7.89%) 3	7 / 86 (8.14%) 11
Enthesopathy			

subjects affected / exposed	0 / 48 (0.00%)	2 / 38 (5.26%)	2 / 86 (2.33%)
occurrences (all)	0	2	2
Groin pain			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Intervertebral disc disorder			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Jaw disorder			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Joint effusion			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Joint stiffness			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Joint swelling			
subjects affected / exposed	2 / 48 (4.17%)	0 / 38 (0.00%)	2 / 86 (2.33%)
occurrences (all)	2	0	2
Juvenile psoriatic arthritis			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Muscle contracture			
subjects affected / exposed	1 / 48 (2.08%)	1 / 38 (2.63%)	2 / 86 (2.33%)
occurrences (all)	1	1	2
Muscle spasms			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Musculoskeletal chest pain			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Musculoskeletal pain			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Musculoskeletal stiffness			

subjects affected / exposed	2 / 48 (4.17%)	1 / 38 (2.63%)	3 / 86 (3.49%)
occurrences (all)	2	3	5
<b>Myalgia</b>			
subjects affected / exposed	0 / 48 (0.00%)	2 / 38 (5.26%)	2 / 86 (2.33%)
occurrences (all)	0	2	2
<b>Neck pain</b>			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	2	2
<b>Osteochondrosis</b>			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
<b>Pain in extremity</b>			
subjects affected / exposed	2 / 48 (4.17%)	4 / 38 (10.53%)	6 / 86 (6.98%)
occurrences (all)	5	5	10
<b>Synovial cyst</b>			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
<b>Temporomandibular joint syndrome</b>			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	2	2
<b>Tendonitis</b>			
subjects affected / exposed	2 / 48 (4.17%)	0 / 38 (0.00%)	2 / 86 (2.33%)
occurrences (all)	2	0	2
<b>Infections and infestations</b>			
<b>Acarodermatitis</b>			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	2	0	2
<b>Adenoiditis</b>			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
<b>Bronchitis</b>			
subjects affected / exposed	2 / 48 (4.17%)	0 / 38 (0.00%)	2 / 86 (2.33%)
occurrences (all)	3	0	3
<b>Conjunctivitis</b>			
subjects affected / exposed	3 / 48 (6.25%)	2 / 38 (5.26%)	5 / 86 (5.81%)
occurrences (all)	3	2	5

Enterobiasis			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Folliculitis			
subjects affected / exposed	1 / 48 (2.08%)	1 / 38 (2.63%)	2 / 86 (2.33%)
occurrences (all)	1	1	2
Gastroenteritis			
subjects affected / exposed	2 / 48 (4.17%)	2 / 38 (5.26%)	4 / 86 (4.65%)
occurrences (all)	2	2	4
Gastrointestinal infection			
subjects affected / exposed	1 / 48 (2.08%)	2 / 38 (5.26%)	3 / 86 (3.49%)
occurrences (all)	1	2	3
Gastrointestinal viral infection			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Helminthic infection			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Herpes zoster			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Hordeolum			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Impetigo			
subjects affected / exposed	1 / 48 (2.08%)	3 / 38 (7.89%)	4 / 86 (4.65%)
occurrences (all)	1	5	6
Influenza			
subjects affected / exposed	5 / 48 (10.42%)	0 / 38 (0.00%)	5 / 86 (5.81%)
occurrences (all)	6	0	6
Lower respiratory tract infection			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Nail bed infection			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1

Nail infection			
subjects affected / exposed	1 / 48 (2.08%)	1 / 38 (2.63%)	2 / 86 (2.33%)
occurrences (all)	2	1	3
Nasopharyngitis			
subjects affected / exposed	16 / 48 (33.33%)	11 / 38 (28.95%)	27 / 86 (31.40%)
occurrences (all)	32	25	57
Onychomycosis			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Oral herpes			
subjects affected / exposed	1 / 48 (2.08%)	2 / 38 (5.26%)	3 / 86 (3.49%)
occurrences (all)	1	2	3
Oral viral infection			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Otitis externa			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	2	0	2
Otitis media			
subjects affected / exposed	1 / 48 (2.08%)	3 / 38 (7.89%)	4 / 86 (4.65%)
occurrences (all)	1	3	4
Paronychia			
subjects affected / exposed	3 / 48 (6.25%)	1 / 38 (2.63%)	4 / 86 (4.65%)
occurrences (all)	6	1	7
Pharyngitis			
subjects affected / exposed	6 / 48 (12.50%)	3 / 38 (7.89%)	9 / 86 (10.47%)
occurrences (all)	7	3	10
Pharyngotonsillitis			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Pilonidal cyst			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Pneumonia			
subjects affected / exposed	3 / 48 (6.25%)	0 / 38 (0.00%)	3 / 86 (3.49%)
occurrences (all)	3	0	3

Pulpitis dental			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Respiratory tract infection			
subjects affected / exposed	1 / 48 (2.08%)	4 / 38 (10.53%)	5 / 86 (5.81%)
occurrences (all)	1	4	5
Respiratory tract infection viral			
subjects affected / exposed	0 / 48 (0.00%)	2 / 38 (5.26%)	2 / 86 (2.33%)
occurrences (all)	0	2	2
Rhinitis			
subjects affected / exposed	3 / 48 (6.25%)	5 / 38 (13.16%)	8 / 86 (9.30%)
occurrences (all)	4	6	10
Sinusitis			
subjects affected / exposed	3 / 48 (6.25%)	0 / 38 (0.00%)	3 / 86 (3.49%)
occurrences (all)	3	0	3
Skin infection			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Soft tissue infection			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Staphylococcal infection			
subjects affected / exposed	0 / 48 (0.00%)	1 / 38 (2.63%)	1 / 86 (1.16%)
occurrences (all)	0	1	1
Tinea pedis			
subjects affected / exposed	1 / 48 (2.08%)	0 / 38 (0.00%)	1 / 86 (1.16%)
occurrences (all)	1	0	1
Tonsillitis			
subjects affected / exposed	4 / 48 (8.33%)	3 / 38 (7.89%)	7 / 86 (8.14%)
occurrences (all)	5	7	12
Tracheitis			
subjects affected / exposed	2 / 48 (4.17%)	1 / 38 (2.63%)	3 / 86 (3.49%)
occurrences (all)	2	1	3
Upper respiratory tract infection			
subjects affected / exposed	10 / 48 (20.83%)	9 / 38 (23.68%)	19 / 86 (22.09%)
occurrences (all)	13	17	30

Urinary tract infection subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	1 / 38 (2.63%) 1	2 / 86 (2.33%) 2
Vaginal infection subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 2	1 / 86 (1.16%) 2
Viral infection subjects affected / exposed occurrences (all)	2 / 48 (4.17%) 3	0 / 38 (0.00%) 0	2 / 86 (2.33%) 3
Viral upper respiratory tract infection subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	1 / 38 (2.63%) 1	2 / 86 (2.33%) 2
Vulvovaginal mycotic infection subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1
Metabolism and nutrition disorders			
Decreased appetite subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	1 / 38 (2.63%) 1	2 / 86 (2.33%) 2
Hypercholesterolaemia subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Lactose intolerance subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	1 / 38 (2.63%) 1	1 / 86 (1.16%) 1
Obesity subjects affected / exposed occurrences (all)	1 / 48 (2.08%) 1	0 / 38 (0.00%) 0	1 / 86 (1.16%) 1

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
06 April 2017	To clarify and correct errors in the ILAR diagnostic criteria detailed in Appendix 7
04 June 2020	To adapt protocol to CIVID-19 pandemic related challengest to trial

Notes:

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### 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.

With regard to immunogenicity, no treatment emergent anti-drug antibodies (ADA) were detected in any sample of subjects of the secukinumab treatment groups. One subject (4201005) was ADA-positive at Baseline only and negative during treatment.

Notes: