



## Clinical trial results:

### A Phase 2, Multicenter, Randomized, Double-blind, Placebo-controlled, Parallel-group, Study Evaluating the Efficacy and Safety of Ustekinumab (STELARA®) and CNTO 1959 Administered Subcutaneously in Subjects With Active Rheumatoid Arthritis Despite Concomitant Methotrexate Therapy

#### Summary

EudraCT number	2011-001122-18
Trial protocol	HU CZ BG
Global end of trial date	05 May 2014

#### Results information

Result version number	v2 (current)
This version publication date	15 July 2016
First version publication date	31 July 2015
Version creation reason	• Correction of full data set Review of data

#### Trial information

##### Trial identification

Sponsor protocol code	CNTO1275ARA2001
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##### Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01645280
WHO universal trial number (UTN)	-

Notes:

#### Sponsors

Sponsor organisation name	Janssen-Cilag International NV
Sponsor organisation address	Turnhoutseweg 30, 2340, Beerse, Belgium,
Public contact	Clinical Registry Group, Janssen-Cilag International NV, ClinicalTrialsEU@its.jnj.com
Scientific contact	Clinical Registry Group, Janssen-Cilag International NV, ClinicalTrialsEU@its.jnj.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?	
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	

Notes:

## Results analysis stage

Analysis stage	Final
Date of interim/final analysis	05 May 2014
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	05 May 2014
Was the trial ended prematurely?	No

Notes:

## General information about the trial

Main objective of the trial:

The primary objective of the study was to evaluate the efficacy of ustekinumab and CNTO 1959 in reducing signs and symptoms of disease in subjects with active Rheumatoid Arthritis [RA] despite concomitant methotrexate (MTX) therapy, and to evaluate the safety of ustekinumab and CNTO 1959 in this population.

Protection of trial subjects:

This study was conducted in accordance with the ethical principles that have their origin in the Declaration of Helsinki and that are consistent with Good Clinical Practices and applicable regulatory requirements. Known instances of nonconformance were documented and are not considered to have had an impact on the overall conclusions of this study. The study protocol and amendment were reviewed by an Independent Ethics Committee (IEC) or Institutional Review Board (IRB). Safety assessments included monitoring and recording all adverse effects [AE] and serious adverse effects [SAE], laboratory evaluations (hematology, blood chemistry, urinalysis and immunogenicity), vital signs, body weight, electro cardio gram [ECG] and injection site reactions through Week 48.

Background therapy:

Stable dose of Methotrexate

Evidence for comparator: -

Actual start date of recruitment	02 July 2012
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	Argentina: 23
Country: Number of subjects enrolled	Bulgaria: 9
Country: Number of subjects enrolled	Chile: 6
Country: Number of subjects enrolled	Colombia: 43
Country: Number of subjects enrolled	Czech Republic: 1
Country: Number of subjects enrolled	Hungary: 20
Country: Number of subjects enrolled	Poland: 35
Country: Number of subjects enrolled	Russian Federation: 86
Country: Number of subjects enrolled	Singapore: 4
Country: Number of subjects enrolled	Ukraine: 46
Country: Number of subjects enrolled	United States: 1
Worldwide total number of subjects	274
EEA total number of subjects	65

Notes:

<b>Subjects enrolled per age group</b>	
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)	235
From 65 to 84 years	39
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details: -

### Pre-assignment

Screening details:

A total of 501 subjects were screened of which 274 subjects were randomized, and 273 participants were treated.

### Period 1

Period 1 title	Overall Study (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

### Arms

Are arms mutually exclusive?	Yes
<b>Arm title</b>	Placebo + Methotrexate (MTX)

Arm description:

Placebo at Weeks 0, 4, 12, 16, 20, 28 unless early escape at Week 16. Subjects who early escape at Week 16 received ustekinumab 90 mg at Weeks 16, 20, and 28.

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Placebo injection at Weeks 0, 4, 12, 16, 20, 28 unless early escape at Week 16. Subjects who early escape at Week 16 received ustekinumab 90 mg at Weeks 16, 20, and 28.

<b>Arm title</b>	Ustekinumab 90 mg Every 8 Weeks + Methotrexate
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Arm description:

Participants randomized to receive Ustekinumab 90 milligram (mg) subcutaneously at Week 0, 4 and then every 8 weeks (Week 12, 20 and 28).

Arm type	Experimental
Investigational medicinal product name	Ustekinumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Ustekinumab 90 mg injected subcutaneously at Weeks 0, 4, 12, 20, and 28. Placebo injection at Week 16 to keep the blind.

<b>Arm title</b>	Ustekinumab 90 mg Every 12 Weeks + Methotrexate
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Arm description:

Participants randomized to receive Ustekinumab 90 milligram (mg) subcutaneously at Week 0, 4 and then every 12 weeks (Week 16 and 28).

Arm type	Experimental
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Investigational medicinal product name	Ustekinumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Ustekinumab 90 mg injected subcutaneously at Weeks 0, 4, 16, and 28. Placebo injection at weeks 12 and 20 to keep the blind.

<b>Arm title</b>	CNT01959 50 mg Every 8 Weeks + Methotrexate
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Arm description:

Participants randomized to receive CNT01959 50 mg subcutaneously at Week 0, 4 and then every 8 weeks (Week 12, 20 and 28).

Arm type	Experimental
Investigational medicinal product name	CNT0 1959
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder for solution for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

CNT01959 50 mg injected subcutaneously at Weeks 0, 4, 12, 20, and 28. Placebo injection at Week 16 to keep the blind.

<b>Arm title</b>	CNT01959 200 mg Every 8 Weeks + Methotrexate
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Arm description:

Participants randomized to receive CNT01959 200 mg subcutaneously at Week 0, 4 and then every 8 weeks (Week 12, 20 and 28).

Arm type	Experimental
Investigational medicinal product name	CNT0 1959
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder for solution for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

CNT0 1959 200 mg injected subcutaneously at Weeks 0, 4, 12, 20 and 28. Placebo injection at Week 16 to keep the blind.

Number of subjects in period 1	Placebo + Methotrexate (MTX)	Ustekinumab 90 mg Every 8 Weeks + Methotrexate	Ustekinumab 90 mg Every 12 Weeks + Methotrexate
Started	55	55	55
Completed	50	51	50
Not completed	5	4	5
Consent withdrawn by subject	-	-	1
Adverse event, non-fatal	2	1	3
Death	-	1	-
Unspecified	1	-	-
Lack of efficacy	2	2	1

<b>Number of subjects in period 1</b>	CNT01959 50 mg Every 8 Weeks +	CNT01959 200 mg Every 8 Weeks +
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	Methotrexate	Methotrexate
Started	55	54
Completed	51	50
Not completed	4	4
Consent withdrawn by subject	1	-
Adverse event, non-fatal	2	-
Death	-	-
Unspecified	-	-
Lack of efficacy	1	4

## Baseline characteristics

### Reporting groups

Reporting group title	Placebo + Methotrexate (MTX)
Reporting group description: Placebo at Weeks 0, 4, 12, 16, 20, 28 unless early escape at Week 16. Subjects who early escape at Week 16 received ustekinumab 90 mg at Weeks 16, 20, and 28.	
Reporting group title	Ustekinumab 90 mg Every 8 Weeks + Methotrexate
Reporting group description: Participants randomized to receive Ustekinumab 90 milligram (mg) subcutaneously at Week 0, 4 and then every 8 weeks (Week 12, 20 and 28).	
Reporting group title	Ustekinumab 90 mg Every 12 Weeks + Methotrexate
Reporting group description: Participants randomized to receive Ustekinumab 90 milligram (mg) subcutaneously at Week 0, 4 and then every 12 weeks (Week 16 and 28).	
Reporting group title	CNT01959 50 mg Every 8 Weeks + Methotrexate
Reporting group description: Participants randomized to receive CNT01959 50 mg subcutaneously at Week 0, 4 and then every 8 weeks (Week 12, 20 and 28).	
Reporting group title	CNT01959 200 mg Every 8 Weeks + Methotrexate
Reporting group description: Participants randomized to receive CNT01959 200 mg subcutaneously at Week 0, 4 and then every 8 weeks (Week 12, 20 and 28).	

Reporting group values	Placebo + Methotrexate (MTX)	Ustekinumab 90 mg Every 8 Weeks + Methotrexate	Ustekinumab 90 mg Every 12 Weeks + Methotrexate
Number of subjects	55	55	55
Title for AgeCategorical Units: subjects			
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	51	47	44
From 65 to 84 years	4	8	11
85 years and over	0	0	0
Title for AgeContinuous Units: years			
arithmetic mean	51.1	50.8	51.4
standard deviation	± 10.57	± 13.01	± 13.59
Title for Gender Units: subjects			
Female	48	46	47
Male	7	9	8

Reporting group values	CNT01959 50 mg Every 8 Weeks + Methotrexate	CNT01959 200 mg Every 8 Weeks + Methotrexate	Total
Number of subjects	55	54	274
Title for AgeCategorical Units: subjects			
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0

Adults (18-64 years)	50	43	235
From 65 to 84 years	5	11	39
85 years and over	0	0	0
Title for AgeContinuous Units: years arithmetic mean standard deviation	49.9 ± 12.85	54.6 ± 11.34	-
Title for Gender Units: subjects			
Female	45	42	228
Male	10	12	46



## End points

### End points reporting groups

Reporting group title	Placebo + Methotrexate (MTX)
Reporting group description: Placebo at Weeks 0, 4, 12, 16, 20, 28 unless early escape at Week 16. Subjects who early escape at Week 16 received ustekinumab 90 mg at Weeks 16, 20, and 28.	
Reporting group title	Ustekinumab 90 mg Every 8 Weeks + Methotrexate
Reporting group description: Participants randomized to receive Ustekinumab 90 milligram (mg) subcutaneously at Week 0, 4 and then every 8 weeks (Week 12, 20 and 28).	
Reporting group title	Ustekinumab 90 mg Every 12 Weeks + Methotrexate
Reporting group description: Participants randomized to receive Ustekinumab 90 milligram (mg) subcutaneously at Week 0, 4 and then every 12 weeks (Week 16 and 28).	
Reporting group title	CNT01959 50 mg Every 8 Weeks + Methotrexate
Reporting group description: Participants randomized to receive CNT01959 50 mg subcutaneously at Week 0, 4 and then every 8 weeks (Week 12, 20 and 28).	
Reporting group title	CNT01959 200 mg Every 8 Weeks + Methotrexate
Reporting group description: Participants randomized to receive CNT01959 200 mg subcutaneously at Week 0, 4 and then every 8 weeks (Week 12, 20 and 28).	
Subject analysis set title	Intent-to-treat (ITT)
Subject analysis set type	Intention-to-treat
Subject analysis set description: The intent-to-treat (ITT) population included all randomized participants. For early escape, subjects were considered as non-responders for subsequent visits through Week 28.	

### Primary: Percentage of Participants With American College of Rheumatology 20 (ACR 20) Response at Week 28

End point title	Percentage of Participants With American College of Rheumatology 20 (ACR 20) Response at Week 28
End point description: The ACR 20 responders are participants with at least 20 percent (%) improvement from Baseline for tender joint count (TJC), swollen joint count (SJC), and at least 3 of the 5 remaining core set measures: 1) patient's assessment of arthritis pain-visual analog scale, 2) patient's global assessment of disease activity-visual analog scale, 3) physician's global assessment of disease activity-visual analog scale, 4) patient's assessment of physical function as measured by health assessment questionnaire-disability index (HAQ-Di), 5) C-reactive protein (CRP).	
End point type	Primary
End point timeframe: Week 28	

End point values	Placebo + Methotrexate (MTX)	Ustekinumab 90 mg Every 8 Weeks + Methotrexate	Ustekinumab 90 mg Every 12 Weeks + Methotrexate	CNT01959 50 mg Every 8 Weeks + Methotrexate
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	55	55	55	55
Units: percentage of participants				
number (not applicable)	40	52.7	54.5	38.2

<b>End point values</b>	CNT01959 200 mg Every 8 Weeks + Methotrexate			
Subject group type	Reporting group			
Number of subjects analysed	54			
Units: percentage of participants				
number (not applicable)	44.4			

## Statistical analyses

<b>Statistical analysis title</b>	Statistical analysis 1
Comparison groups	Ustekinumab 90 mg Every 8 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	110
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.184
Method	Cochran-Mantel-Haenszel

<b>Statistical analysis title</b>	Statistical analysis 2
Comparison groups	Ustekinumab 90 mg Every 12 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	110
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.13
Method	Cochran-Mantel-Haenszel

<b>Statistical analysis title</b>	Statistical analysis 3
Comparison groups	CNT01959 200 mg Every 8 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	109
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.642
Method	Cochran-Mantel-Haenszel

<b>Statistical analysis title</b>	Statistical analysis 4
Comparison groups	CNT01959 50 mg Every 8 Weeks + Methotrexate v Placebo +

	Methotrexate (MTX)
Number of subjects included in analysis	110
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.832
Method	Cochran-Mantel-Haenszel

### Secondary: Change From Baseline in Disease Activity Index Score 28 (DAS28; Using C-reactive Protein [CRP]) Score at Week 28

End point title	Change From Baseline in Disease Activity Index Score 28 (DAS28; Using C-reactive Protein [CRP]) Score at Week 28
End point description: The DAS28 calculated from the number of swollen joints (SJC) and painful joints (PJC) using the 28 joints count, CRP milligram per liter (mg/L) and patient's global assessment (PGA) of disease activity (participant rated arthritis activity assessment with transformed scores ranging 0 to 100 mm); higher scores indicated greater disease activity). DAS28 $\leq$ 3.2 = low disease activity, DAS28 $>$ 3.2 to 5.1 = moderate to high disease activity.	
End point type	Secondary
End point timeframe: From Baseline to Week 28	

End point values	Placebo + Methotrexate (MTX)	Ustekinumab 90 mg Every 8 Weeks + Methotrexate	Ustekinumab 90 mg Every 12 Weeks + Methotrexate	CNT01959 50 mg Every 8 Weeks + Methotrexate
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	55	54	55	55
Units: units on scale				
least squares mean (standard error)	-0.9353 ( $\pm$ 0.17414)	-1.5256 ( $\pm$ 0.1853)	-1.4964 ( $\pm$ 0.18349)	-1.4164 ( $\pm$ 0.17329)

End point values	CNT01959 200 mg Every 8 Weeks + Methotrexate			
Subject group type	Reporting group			
Number of subjects analysed	54			
Units: units on scale				
least squares mean (standard error)	-1.2126 ( $\pm$ 0.17055)			

### Statistical analyses

Statistical analysis title	Statistical analysis 1
Comparison groups	Ustekinumab 90 mg Every 8 Weeks + Methotrexate v Placebo + Methotrexate (MTX)

Number of subjects included in analysis	109
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.019
Method	ANCOVA

<b>Statistical analysis title</b>	Statistical analysis 2
Comparison groups	Ustekinumab 90 mg Every 12 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	110
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.025
Method	ANCOVA

<b>Statistical analysis title</b>	Statistical analysis 3
Comparison groups	CNT01959 200 mg Every 8 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	109
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.248
Method	ANCOVA

<b>Statistical analysis title</b>	Statistical analysis 4
Comparison groups	CNT01959 50 mg Every 8 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	110
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.045
Method	ANCOVA

## **Secondary: Percentage of Participants With American College of Rheumatology 20 (ACR 20) Response at Week 12**

End point title	Percentage of Participants With American College of Rheumatology 20 (ACR 20) Response at Week 12
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### **End point description:**

The ACR 20 responders are participants with at least 20 percent (%) improvement from Baseline for tender joint count (TJC), swollen joint count (SJC), and at least 3 of the 5 remaining core set measures: 1) Patient's Assessment of Arthritis Pain-Visual Analog Scale, 2) Patient's Global Assessment of Disease Activity-Visual Analog Scale, 3) Physician's Global Assessment of Disease Activity-Visual Analog Scale, 4) Patient's Assessment of Physical Function as measured by Health Assessment Questionnaire-Disability Index (HAQ-DI), 5) C-reactive Protein (CRP).

End point type	Secondary
End point timeframe:	
Week 12	

End point values	Placebo + Methotrexate (MTX)	Ustekinumab 90 mg Every 8 Weeks + Methotrexate	Ustekinumab 90 mg Every 12 Weeks + Methotrexate	CNT01959 50 mg Every 8 Weeks + Methotrexate
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	55	54	55	55
Units: percentage of participants				
number (not applicable)	29.1	37	34.5	20

End point values	CNT01959 200 mg Every 8 Weeks + Methotrexate			
Subject group type	Reporting group			
Number of subjects analysed	54			
Units: percentage of participants				
number (not applicable)	33.3			

### Statistical analyses

Statistical analysis title	Statistical analysis 1
Comparison groups	Ustekinumab 90 mg Every 8 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	109
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.381
Method	Cochran-Mantel-Haenszel

Statistical analysis title	Statistical analysis 2
Comparison groups	Ustekinumab 90 mg Every 12 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	110
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.543
Method	Cochran-Mantel-Haenszel

<b>Statistical analysis title</b>	Statistical analysis 3
Comparison groups	CNT01959 200 mg Every 8 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	109
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.629
Method	Cochran-Mantel-Haenszel

<b>Statistical analysis title</b>	Statistical analysis 4
Comparison groups	CNT01959 50 mg Every 8 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	110
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.273
Method	Cochran-Mantel-Haenszel

### **Secondary: Change From Baseline in Health Assessment Questionnaire - Disability Index (HAQ-DI) Score at Week 28**

End point title	Change From Baseline in Health Assessment Questionnaire - Disability Index (HAQ-DI) Score at Week 28
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End point description:

The Health Assessment Questionnaire-Disability Index (HAQ-DI): participant-reported assessment of ability to perform tasks in 8 categories of daily living activities: dress/groom; arise; eat; walk; reach; grip; hygiene; and common activities over past week. Each item scored on 4-point scale from 0 to 3: 0=no difficulty; 1=some difficulty; 2=much difficulty; 3=unable to do. Overall score was computed as the sum of domain scores and divided by the number of domains answered. Total possible score range 0-3 where 0 = least difficulty and 3 = extreme difficulty.

End point type	Secondary
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End point timeframe:

Baseline and Week 28

<b>End point values</b>	Placebo + Methotrexate (MTX)	Ustekinumab 90 mg Every 8 Weeks + Methotrexate	Ustekinumab 90 mg Every 12 Weeks + Methotrexate	CNT01959 50 mg Every 8 Weeks + Methotrexate
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	55	54	55	55
Units: units on scale				
least squares mean (standard error)	-0.2951 (± 0.07454)	-0.4805 (± 0.07205)	-0.4412 (± 0.07153)	-0.3969 (± 0.07695)

<b>End point values</b>	CNT01959 200 mg Every 8 Weeks + Methotrexate			
Subject group type	Reporting group			
Number of subjects analysed	54			
Units: units on scale				
least squares mean (standard error)	-0.4105 ( $\pm$ 0.07562)			

## Statistical analyses

<b>Statistical analysis title</b>	Statistical analysis 1
Comparison groups	Ustekinumab 90 mg Every 8 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	109
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.06
Method	ANCOVA

<b>Statistical analysis title</b>	Statistical analysis 2
Comparison groups	Ustekinumab 90 mg Every 12 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	110
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.134
Method	ANCOVA

<b>Statistical analysis title</b>	Statistical analysis 3
Comparison groups	CNT01959 200 mg Every 8 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	109
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.28
Method	ANCOVA

<b>Statistical analysis title</b>	Statistical analysis 4
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Comparison groups	CNT01959 50 mg Every 8 Weeks + Methotrexate v Placebo + Methotrexate (MTX)
Number of subjects included in analysis	110
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.345
Method	ANCOVA



## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

Through week 48

Assessment type	Systematic
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### Dictionary used

Dictionary name	MedDRA
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Dictionary version	16.0
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### Reporting groups

Reporting group title	Placebo+MTX
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Reporting group description:

Placebo at Weeks 0, 4, 12, 16, 20 and 28 unless early escape at Week 16.

Reporting group title	Placebo (Early Escape)
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Reporting group description:

Participants in placebo group who early escaped at Weeks 16 and received ustekinumab 90 milligram (mg) subcutaneously at Week 16, 20 and 28.

Reporting group title	Ustekinumab 90 mg Every 8 Weeks + MTX
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Reporting group description:

Participants received ustekinumab 90 milligram (mg) subcutaneously at Weeks 0, 4 and then every 8 weeks (Week 12, 20 and 28).

Reporting group title	Ustekinumab 90 mg Every 12 Weeks + MTX
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Reporting group description:

Participants received ustekinumab 90 milligram (mg) subcutaneously at Weeks 0, 4 and then every 12 weeks (Week 16 and 28).

Reporting group title	CNT01959 50 mg Every 8 Weeks + MTX
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Reporting group description:

Participants received CNT01959 50 mg subcutaneously at Weeks 0, 4 and then every 8 weeks (Week 12, 20 and 28).

Reporting group title	CNT01959 200 mg Every 8 Weeks + MTX
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Reporting group description:

Participants received CNT01959 200 mg subcutaneously at Weeks 0, 4 and then every 8 weeks (Week 12, 20 and 28).

Serious adverse events	Placebo+MTX	Placebo (Early Escape)	Ustekinumab 90 mg Every 8 Weeks + MTX
Total subjects affected by serious adverse events			
subjects affected / exposed	3 / 55 (5.45%)	1 / 16 (6.25%)	4 / 54 (7.41%)
number of deaths (all causes)	0	0	1
number of deaths resulting from adverse events	0	0	0
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Breast Cancer Stage I			
subjects affected / exposed	0 / 55 (0.00%)	0 / 16 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Squamous cell carcinoma of lung subjects affected / exposed	0 / 55 (0.00%)	0 / 16 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Injury, poisoning and procedural complications			
Concussion			
subjects affected / exposed	0 / 55 (0.00%)	0 / 16 (0.00%)	1 / 54 (1.85%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Vascular disorders			
Shock			
subjects affected / exposed	0 / 55 (0.00%)	0 / 16 (0.00%)	1 / 54 (1.85%)
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 Unstable			
subjects affected / exposed	1 / 55 (1.82%)	0 / 16 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nervous system disorders			
Sciatica			
subjects affected / exposed	0 / 55 (0.00%)	0 / 16 (0.00%)	1 / 54 (1.85%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Transient Ischaemic Attack			
subjects affected / exposed	0 / 55 (0.00%)	0 / 16 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Blood and lymphatic system disorders			
Anaemia			
subjects affected / exposed	0 / 55 (0.00%)	0 / 16 (0.00%)	1 / 54 (1.85%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrointestinal disorders			
Ileus			

subjects affected / exposed	0 / 55 (0.00%)	0 / 16 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Musculoskeletal and connective tissue disorders			
Rheumatoid arthritis			
subjects affected / exposed	1 / 55 (1.82%)	1 / 16 (6.25%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
Appendicitis			
subjects affected / exposed	1 / 55 (1.82%)	0 / 16 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Lobar Pneumonia			
subjects affected / exposed	0 / 55 (0.00%)	0 / 16 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Urinary tract infection			
subjects affected / exposed	0 / 55 (0.00%)	0 / 16 (0.00%)	1 / 54 (1.85%)
occurrences causally related to treatment / all	0 / 0	0 / 0	1 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastroenteritis			
subjects affected / exposed	0 / 55 (0.00%)	0 / 16 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

<b>Serious adverse events</b>	Ustekinumab 90 mg Every 12 Weeks + MTX	CNT01959 50 mg Every 8 Weeks + MTX	CNT01959 200 mg Every 8 Weeks + MTX
Total subjects affected by serious adverse events			
subjects affected / exposed	3 / 55 (5.45%)	0 / 55 (0.00%)	3 / 54 (5.56%)
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)			
Breast Cancer Stage I			

subjects affected / exposed	0 / 55 (0.00%)	0 / 55 (0.00%)	1 / 54 (1.85%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Squamous cell carcinoma of lung			
subjects affected / exposed	1 / 55 (1.82%)	0 / 55 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Injury, poisoning and procedural complications			
Concussion			
subjects affected / exposed	0 / 55 (0.00%)	0 / 55 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Vascular disorders			
Shock			
subjects affected / exposed	0 / 55 (0.00%)	0 / 55 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Cardiac disorders			
Angina Unstable			
subjects affected / exposed	0 / 55 (0.00%)	0 / 55 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nervous system disorders			
Sciatica			
subjects affected / exposed	0 / 55 (0.00%)	0 / 55 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Transient Ischaemic Attack			
subjects affected / exposed	1 / 55 (1.82%)	0 / 55 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Blood and lymphatic system disorders			
Anaemia			

subjects affected / exposed	0 / 55 (0.00%)	0 / 55 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Gastrointestinal disorders</b>			
Ileus			
subjects affected / exposed	1 / 55 (1.82%)	0 / 55 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Musculoskeletal and connective tissue disorders</b>			
Rheumatoid arthritis			
subjects affected / exposed	0 / 55 (0.00%)	0 / 55 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Infections and infestations</b>			
Appendicitis			
subjects affected / exposed	0 / 55 (0.00%)	0 / 55 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Lobar Pneumonia			
subjects affected / exposed	0 / 55 (0.00%)	0 / 55 (0.00%)	1 / 54 (1.85%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Urinary tract infection			
subjects affected / exposed	0 / 55 (0.00%)	0 / 55 (0.00%)	0 / 54 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastroenteritis			
subjects affected / exposed	0 / 55 (0.00%)	0 / 55 (0.00%)	1 / 54 (1.85%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

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

<b>Non-serious adverse events</b>	Placebo+MTX	Placebo (Early Escape)	Ustekinumab 90 mg Every 8 Weeks + MTX
Total subjects affected by non-serious adverse events subjects affected / exposed	18 / 55 (32.73%)	6 / 16 (37.50%)	20 / 54 (37.04%)
Investigations Aspartate Aminotransferase Increased subjects affected / exposed occurrences (all)	1 / 55 (1.82%) 1	1 / 16 (6.25%) 1	0 / 54 (0.00%) 0
Vascular disorders Hypertension subjects affected / exposed occurrences (all)	3 / 55 (5.45%) 3	1 / 16 (6.25%) 1	4 / 54 (7.41%) 4
Nervous system disorders Headache subjects affected / exposed occurrences (all)	3 / 55 (5.45%) 3	1 / 16 (6.25%) 1	2 / 54 (3.70%) 3
Blood and lymphatic system disorders Anaemia subjects affected / exposed occurrences (all)	1 / 55 (1.82%) 1	0 / 16 (0.00%) 0	3 / 54 (5.56%) 3
General disorders and administration site conditions Asthenia subjects affected / exposed occurrences (all)	0 / 55 (0.00%) 0	1 / 16 (6.25%) 1	2 / 54 (3.70%) 2
Gastrointestinal disorders Dyspepsia subjects affected / exposed occurrences (all)	1 / 55 (1.82%) 1	1 / 16 (6.25%) 1	0 / 54 (0.00%) 0
Skin and subcutaneous tissue disorders Photosensitivity Reaction subjects affected / exposed occurrences (all)	0 / 55 (0.00%) 0	1 / 16 (6.25%) 1	0 / 54 (0.00%) 0
Musculoskeletal and connective tissue disorders Rheumatoid Arthritis subjects affected / exposed occurrences (all)  Back Pain	1 / 55 (1.82%) 1	1 / 16 (6.25%) 1	2 / 54 (3.70%) 2

subjects affected / exposed occurrences (all)	1 / 55 (1.82%) 1	0 / 16 (0.00%) 0	0 / 54 (0.00%) 0
<b>Infections and infestations</b>			
Influenza			
subjects affected / exposed	3 / 55 (5.45%)	0 / 16 (0.00%)	1 / 54 (1.85%)
occurrences (all)	4	0	2
Nasopharyngitis			
subjects affected / exposed	3 / 55 (5.45%)	1 / 16 (6.25%)	5 / 54 (9.26%)
occurrences (all)	3	1	8
Bronchitis			
subjects affected / exposed	1 / 55 (1.82%)	0 / 16 (0.00%)	2 / 54 (3.70%)
occurrences (all)	1	0	2
Pharyngitis			
subjects affected / exposed	0 / 55 (0.00%)	1 / 16 (6.25%)	0 / 54 (0.00%)
occurrences (all)	0	1	0
Urinary Tract Infection			
subjects affected / exposed	0 / 55 (0.00%)	1 / 16 (6.25%)	1 / 54 (1.85%)
occurrences (all)	0	1	1

<b>Non-serious adverse events</b>	Ustekinumab 90 mg Every 12 Weeks + MTX	CNT01959 50 mg Every 8 Weeks + MTX	CNT01959 200 mg Every 8 Weeks + MTX
Total subjects affected by non-serious adverse events			
subjects affected / exposed	17 / 55 (30.91%)	14 / 55 (25.45%)	21 / 54 (38.89%)
<b>Investigations</b>			
Aspartate Aminotransferase Increased			
subjects affected / exposed	1 / 55 (1.82%)	1 / 55 (1.82%)	0 / 54 (0.00%)
occurrences (all)	1	1	0
<b>Vascular disorders</b>			
Hypertension			
subjects affected / exposed	2 / 55 (3.64%)	1 / 55 (1.82%)	1 / 54 (1.85%)
occurrences (all)	2	1	1
<b>Nervous system disorders</b>			
Headache			
subjects affected / exposed	5 / 55 (9.09%)	2 / 55 (3.64%)	3 / 54 (5.56%)
occurrences (all)	5	2	3
<b>Blood and lymphatic system disorders</b>			

Anaemia subjects affected / exposed occurrences (all)	0 / 55 (0.00%) 0	1 / 55 (1.82%) 1	3 / 54 (5.56%) 3
General disorders and administration site conditions Asthenia subjects affected / exposed occurrences (all)	1 / 55 (1.82%) 1	1 / 55 (1.82%) 1	1 / 54 (1.85%) 1
Gastrointestinal disorders Dyspepsia subjects affected / exposed occurrences (all)	0 / 55 (0.00%) 0	0 / 55 (0.00%) 0	0 / 54 (0.00%) 0
Skin and subcutaneous tissue disorders Photosensitivity Reaction subjects affected / exposed occurrences (all)	0 / 55 (0.00%) 0	0 / 55 (0.00%) 0	0 / 54 (0.00%) 0
Musculoskeletal and connective tissue disorders Rheumatoid Arthritis subjects affected / exposed occurrences (all)  Back Pain subjects affected / exposed occurrences (all)	5 / 55 (9.09%) 7  0 / 55 (0.00%) 0	2 / 55 (3.64%) 2  3 / 55 (5.45%) 4	4 / 54 (7.41%) 4  1 / 54 (1.85%) 1
Infections and infestations Influenza subjects affected / exposed occurrences (all)  Nasopharyngitis subjects affected / exposed occurrences (all)  Bronchitis subjects affected / exposed occurrences (all)  Pharyngitis subjects affected / exposed occurrences (all)  Urinary Tract Infection	3 / 55 (5.45%) 3  4 / 55 (7.27%) 6  2 / 55 (3.64%) 2  1 / 55 (1.82%) 1	3 / 55 (5.45%) 3  3 / 55 (5.45%) 6  2 / 55 (3.64%) 2  1 / 55 (1.82%) 1	3 / 54 (5.56%) 4  4 / 54 (7.41%) 7  4 / 54 (7.41%) 5  0 / 54 (0.00%) 0



subjects affected / exposed	1 / 55 (1.82%)	0 / 55 (0.00%)	0 / 54 (0.00%)
occurrences (all)	1	0	0

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
29 March 2012	The length of study was reduced to a 28-week placebo-controlled period with 20-week follow-up period. The hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV) testings were added at the screening. The total blood volume was updated to include the additional laboratory testing added to the protocol. The treatment failure criteria were updated to include all reasons for discontinuation of study agent (such as due to adverse events [AEs]). A 12-lead ECG was added to the Week 28 safety evaluations. Instructions were added to the protocol to avoid unblinding by the Principal Investigator because of serious adverse events (SAEs) related to disease progression. Added that ribonucleic acid (RNA) would be measured from whole blood as well as serum in the study. The unit 10-cm was removed in reference to Visual Analogue Scale (VAS) since an electronic patient-reported outcome e-PRO) device was to be used to collect the VAS in the study. Preplanned surgery/procedure(s) row was removed from the time and events schedule since this row did not pertain to this study.

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.

No notable study limitations were identified by the Sponsor.

Notes: