



## Clinical trial results:

### A 6 Month Phase 2, Multi-Center, Open-label, Single Arm Study to Evaluate the Safety and Efficacy of Treatment With Canakinumab in Pediatric Patients With Colchicine Intolerant or Colchicine Resistant Familial Mediterranean Fever

#### Summary

EudraCT number	2015-003522-13
Trial protocol	Outside EU/EEA
Global end of trial date	26 February 2012

#### Results information

Result version number	v1 (current)
This version publication date	12 November 2016
First version publication date	12 November 2016

#### Trial information

##### Trial identification

Sponsor protocol code	CACZ885D2204
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##### Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01148797
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,
Scientific contact	Clinical Disclosure Office, Novartis Pharma AG, +41 613241111,

Notes:

##### Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

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**Results analysis stage**

Analysis stage	Final
Date of interim/final analysis	26 February 2012
Is this the analysis of the primary completion data?	No
Global end of trial reached?	Yes
Global end of trial date	26 February 2012
Was the trial ended prematurely?	No

Notes:

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**General information about the trial**

Main objective of the trial:

To measure the effect of canakinumab on the frequency of FMF attacks defined as percentage of patients with at least 50% reduction in the attack frequency during a 3 month Treatment period.

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	29 December 2010
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

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**Population of trial subjects****Subjects enrolled per country**

Country: Number of subjects enrolled	Israel: 7
Worldwide total number of subjects	7
EEA total number of subjects	0

Notes:

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**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)	5
Adolescents (12-17 years)	2
Adults (18-64 years)	0
From 65 to 84 years	0
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details: -

### Pre-assignment

Screening details:

Informed consent was obtained from each patient in writing before screening. The study was described by the investigator, who answered any questions, and written information was also provided.

### Period 1

Period 1 title	Overall trial (overall period)
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

### Arms

Arm title	Canakinumab
Arm description: -	
Arm type	Experimental
Investigational medicinal product name	Canakinumab 150 mg
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Subjects weighing <40 kg received 2 mg/kg canakinumab monthly administered s.c. ( 150 mg for patients ≥ 40 kg). The dose could be increased to 4 mg/kg for patients < 40 kg at the second dosing (300 mg for patients ≥ 40 kg) in case an attack occurred between Baseline and visit 7 on Day 29.

Number of subjects in period 1	Canakinumab
Started	7
Completed	7

## Baseline characteristics

### Reporting groups

Reporting group title	Canakinumab
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Reporting group description: -

Reporting group values	Canakinumab	Total	
Number of subjects	7	7	
Age categorical			
Units: Subjects			
Children (2-11 years)	5	5	
Adolescents (12-17 years)	2	2	
Age continuous			
Units: years			
arithmetic mean	9.9		
standard deviation	± 3	-	
Gender categorical			
Units: Subjects			
Female	2	2	
Male	5	5	

## End points

### End points reporting groups

Reporting group title	Canakinumab
Reporting group description: -	

### Primary: Percentage of patients with more than 50% reduction in attack frequency

End point title	Percentage of patients with more than 50% reduction in attack frequency <sup>[1]</sup>
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End point description:

End point type	Primary
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End point timeframe:

Baseline up to 84 days

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: Statistical analyses have not been reported for this primary end point.

End point values	Canakinumab			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: percent				
number (not applicable)				
Reduction<50%	14.3			
Reduction>=50%	85.7			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Attack frequency comparison at pre-treatment and treatment period

End point title	Attack frequency comparison at pre-treatment and treatment period
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End point description:

End point type	Secondary
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End point timeframe:

Baseline through treatment (84 days).

End point values	Canakinumab			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: attack rate				
arithmetic mean (standard deviation)				
Pre-treatment	7.98 (± 3.65)			
Treatment	1.11 (± 1.45)			
Absolute change from pre-treat - end of treatment	-6.86 (± 4.31)			
Percent change from pre-treat to end of treatment	-80.48 (± 31.88)			

## Statistical analyses

No statistical analyses for this end point

## Secondary: Percentage of patients with Familial Mediterranean Fever (FMF) attacks during the post-treatment period

End point title	Percentage of patients with Familial Mediterranean Fever (FMF) attacks during the post-treatment period
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End point description:

End point type	Secondary
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End point timeframe:

Day 57 to End of Study (EOS)

End point values	Canakinumab			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: percent				
number (not applicable)				
No. of attacks = 0	28.6			
No. of attacks = 1	57.1			
No. of attacks = 3	14.3			

## Statistical analyses

No statistical analyses for this end point

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

Adverse events are collected from First Patient First Visit (FPFV) until Last Patient Last Visit (LPLV). All adverse events reported in this record are from date of First Patient First Treatment until Last Patient Last Visit.

Assessment type	Systematic
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### Dictionary used

Dictionary name	MedDRA
Dictionary version	15.1

### Reporting groups

Reporting group title	Canakinumab
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Reporting group description:

Canakinumab

Serious adverse events	Canakinumab		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 7 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		

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

Non-serious adverse events	Canakinumab		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	4 / 7 (57.14%)		
General disorders and administration site conditions			
Fatigue			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	2		
Injection site pain			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Non-cardiac chest pain			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Ear and labyrinth disorders			

Vertigo subjects affected / exposed occurrences (all)	1 / 7 (14.29%) 1		
Eye disorders Laceration and eyelid edema subjects affected / exposed occurrences (all)	1 / 7 (14.29%) 1		
Gastrointestinal disorders Diarrhea subjects affected / exposed occurrences (all)	1 / 7 (14.29%) 1		
Respiratory, thoracic and mediastinal disorders Oropharyngeal pain subjects affected / exposed occurrences (all)	1 / 7 (14.29%) 3		
Skin and subcutaneous tissue disorders Pruritus subjects affected / exposed occurrences (all)  Rash subjects affected / exposed occurrences (all)	1 / 7 (14.29%) 1  1 / 7 (14.29%) 1		
Infections and infestations Hordeolum subjects affected / exposed occurrences (all)  Streptococcal infection subjects affected / exposed occurrences (all)	1 / 7 (14.29%) 1  1 / 7 (14.29%) 1		



## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
10 February 2011	<ol style="list-style-type: none"><li>1. Visits and Assessments Schedule – there were a few discrepancies between the Table and the protocol text.</li><li>2. Study Design Figure: There were some details missing from the schema.</li><li>3. The limitation of a minimum of 14 day-attack free interval between attacks was deleted, due to nonconformity with the study population.</li><li>4. SAE follow-up period was extended from 4 to 8 weeks after EOS visit, due to long half life of canakinumab.</li><li>5. There were a few abbreviations used without detailing.</li><li>6. There were a few typing errors and spelling mistakes.</li></ol>

Notes:

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### Interruptions (globally)

Were there any global interruptions to the trial? No

### Limitations and caveats

None reported