



Clinical trial results:

STUDY OF THE EFFICACY AND SAFETY OF A PAD™ CALCIPOTRIOL CREAM IN THE PSORIASIS PLAQUE TEST

Summary

EudraCT number	2015-003893-34
Trial protocol	FR
Global end of trial date	27 September 2016

Results information

Result version number	v1 (current)
This version publication date	28 June 2020
First version publication date	28 June 2020

Trial information

Trial identification

Sponsor protocol code	MC2-16-C1
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Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	MC2 Therapeutics Ltd.
Sponsor organisation address	C/O Agern Allé 24-26, Hørsholm, Denmark, 2970
Public contact	Senior Project Manager, Clinical Operations, MC2 Therapeutics Ltd., 45 20157033, isa@mc2therapeutics.com
Scientific contact	Senior Project Manager, Clinical Operations, MC2 Therapeutics Ltd., 45 20157033, isa@mc2therapeutics.com

Notes:

Paediatric regulatory details

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

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	27 September 2016
Is this the analysis of the primary completion data?	Yes
Primary completion date	27 September 2016
Global end of trial reached?	Yes
Global end of trial date	27 September 2016
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The primary objective is to evaluate the efficacy of a PAD Calcipotriol cream MC2-01 (calcipotriol) compared to two calcipotriol reference formulations (Daivonex® cream and Daivonex® ointment) in patients with plaque psoriasis

Protection of trial subjects:

The Risk/benefit ratio assessment was based on a 4-week psoriasis study on 33 patients with psoriasis plaque. This study showed that the three MC1-01 formulations were safe and well tolerated.

The patient were treated with once daily application of the investigational medical products, six days a week (every day except Sunday) for 4 weeks. Each application site was of approximately 3 cm² on one or more psoriatic plaques of identical severity (similar baseline Total Plaque Score (TPS) $\geq$ 5.

Monitoring of Adverse Events and local tolerance assessment was done twice weekly. During and following a patient's participation in the trial, the investigator was to ensure adequate medical care to patients for any adverse events, as applicable.

Background therapy: -

Evidence for comparator:

The 3 comparator products were all approved topical cream or ointments containing either calcipotriol or calcipotriol/betamethasone.

Actual start date of recruitment	19 April 2016
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	France: 24
Worldwide total number of subjects	24
EEA total number of subjects	24

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	0

months)	
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	24
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

All subjects in the study was selected from an internal database of potential candidates at the clinic. All subject has had previously accepted to be contacted in case of potential participation in a study.

Pre-assignment

Screening details:

A signed informed consent form was obtained prior to performing any study related activities. Prior to the baseline a washout period up to 21 days had to be completed if the subject was treated or has recently been treated with anti-psoriatic treatments or other relevant medications.

Period 1

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

Blinding implementation details:

All 6 products were provided to an unblinded person in charge of product application. The products were labelled from A - F. The same person was also provided with a randomization list, indicated the allocation of the 6 products to each of the 6 test sites.

The subject, Investigator, monitor and assessor were all kept blinded to the product allocation.

Arms

Arm title	Test sites
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Arm description:

Each patient received repeatedly applications with 6 products:

- MC2-01 (calcipotriol) cream
- MC2-01 (vehicle)
- MC2-01 (Calcipotriol/betamethasone dipropionate) cream
- Daivobet (Calcipotriol/betamethasone dipropionate) ointment
- Daivonex® (calcipotriol) cream
- Daivonex® (calcipotriol) ointment

The 6 products was randomly applied by a qualified person, under non-occlusive conditions, using a sticker to define the areas of products application, once daily, except Sundays, for a total of 24 applications.

Arm type	Experimental
Investigational medicinal product name	MC2-01 (calcipotriol) cream
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cream
Routes of administration	Topical use

Dosage and administration details:

MC2-01 cream contains calcipotriol (50µg/g). The dose regimen was 50 µl repeatedly topical (cutaneous to the skin) applications to a predefined test site with an area of 2 cm in diameter, once daily, except Sundays, for a total of 24 applications. The application was covered with a non-occlusive gaze dressing.

Investigational medicinal product name	MC2-01 vehicle
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cream
Routes of administration	Topical use

Dosage and administration details:

MC2-01 cream does not contain any active ingredient. The dose regimen was 50 µl repeatedly topical

(cutaneous to the skin) applications to a predefined test site with an area of 2 cm in diameter, once daily, except Sundays, for a total of 24 applications. The application was covered with a non-occlusive gaze dressing.

Investigational medicinal product name	MC2-01 (Calcipotriol/betamethasone dipropionate) cream
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cream
Routes of administration	Topical use

Dosage and administration details:

MC2-01 cream contains calcipotriol / betamethasone dipropionate (50µg/g / 0.5mg/g). The dose regimen was 50 µl repeatedly topical (cutaneous to the skin) applications to a predefined test site with an area of 2 cm in diameter, once daily, except Sundays, for a total of 24 applications. The application was covered with a non-occlusive gaze dressing.

Investigational medicinal product name	Daivobet® ointment
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cream
Routes of administration	Topical use

Dosage and administration details:

Daivobet® ointment contains calcipotriol / betamethasone dipropionate (50µg/g / 0.5mg/g). The dose regimen was 50 µl repeatedly topical (cutaneous to the skin) applications to a predefined test site with an area of 2 cm in diameter, once daily, except Sundays, for a total of 24 applications. The application was covered with a non-occlusive gaze dressing.

Investigational medicinal product name	Daivonex® cream
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cream
Routes of administration	Topical use

Dosage and administration details:

Daivonex® cream contains calcipotriol (50µg/g). The dose regimen was 50 µl repeatedly topical (cutaneous to the skin) applications to a predefined test site with an area of 2 cm in diameter, once daily, except Sundays, for a total of 24 applications. The application was covered with a non-occlusive gaze dressing.

Investigational medicinal product name	Daivonex® ointment
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cream
Routes of administration	Topical use

Dosage and administration details:

Daivonex® ointment contains calcipotriol (50µg/g). The dose regimen was 50 µl repeatedly topical (cutaneous to the skin) applications to a predefined test site with an area of 2 cm in diameter, once daily, except Sundays, for a total of 24 applications. The application was covered with a non-occlusive gaze dressing.

Number of subjects in period 1	Test sites
Started	24
Completed	24

Baseline characteristics

Reporting groups

Reporting group title	Test phase
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Reporting group description: -

Reporting group values	Test phase	Total	
Number of subjects	24	24	
Age categorical			
Units: Subjects			
Adults (18-64 years)	24	24	
Gender categorical			
Units: Subjects			
Female	9	9	
Male	15	15	
FitzPatrick Skin Type			
Units: Subjects			
Skintype I	0	0	
Skintype II	2	2	
Skintype III	22	22	
Skintype IV	0	0	

End points

End points reporting groups

Reporting group title	Test sites
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Reporting group description:

Each patient received repeatedly applications with 6 products:

- MC2-01 (calcipotriol) cream
- MC2-01 (vehicle)
- MC2-01 (Calcipotriol/betamethasone dipropionate) cream
- Daivobet (Calcipotriol/betamethasone dipropionate) ointment
- Daivonex® (calcipotriol) cream
- Daivonex® (calcipotriol) ointment

The 6 products was randomly applied by a qualified person, under non-occlusive conditions, using a sticker to define the areas of products application, once daily, except Sundays, for a total of 24 applications.

Subject analysis set title	MC2-01 (calcipotriol) cream
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Subject analysis set type	Full analysis
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Subject analysis set description:

All 24 randomized subjects were included in the Full Analysis Set and analyzed for absolute change in Total Clinical score (TCS) from baseline of End of Trial.

Subject analysis set title	MC2-01 vehicle
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Subject analysis set type	Full analysis
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Subject analysis set description:

All 24 randomized subjects were included in the Full Analysis Set and analyzed for absolute change in Total Clinical score (TCS) from baseline of End of Trial.

Subject analysis set title	MC2-01 (Calcipotriol/betamethasone dipropionate) cream
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Subject analysis set type	Full analysis
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Subject analysis set description:

All 24 randomized subjects were included in the Full Analysis Set and analyzed for absolute change in Total Clinical score (TCS) from baseline of End of Trial.

Subject analysis set title	Daivobet® ointment
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Subject analysis set type	Full analysis
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Subject analysis set description:

All 24 randomized subjects were included in the Full Analysis Set and analyzed for absolute change in Total Clinical score (TCS) from baseline of End of Trial.

Subject analysis set title	Daivonex® cream
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Subject analysis set type	Full analysis
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Subject analysis set description:

All 24 randomized subjects were included in the Full Analysis Set and analyzed for absolute change in Total Clinical score (TCS) from baseline of End of Trial.

Subject analysis set title	Daivonex® ointment
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Subject analysis set type	Full analysis
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Subject analysis set description:

All 24 randomized subjects were included in the Full Analysis Set and analyzed for absolute change in Total Clinical score (TCS) from baseline of End of Trial.

Primary: TCS score

End point title	TCS score
End point description: Absolute change in Trial Clinical Score (TCS).	
End point type	Primary
End point timeframe: Absolute change from baseline to end of trial.	

End point values	MC2-01 (calcipotriol) cream	MC2-01 vehicle	MC2-01 (Calcipotriol/be tamethasone dipropionate) cream	Daivobet® ointment
Subject group type	Subject analysis set	Subject analysis set	Subject analysis set	Subject analysis set
Number of subjects analysed	24	24	24	24
Units: Score				
arithmetic mean (standard deviation)	-2.5 (± 1.3)	-1.2 (± 1.0)	-5.1 (± 1.2)	-5.5 (± 1.1)

End point values	Daivonex® cream	Daivonex® ointment		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	24	24		
Units: Score				
arithmetic mean (standard deviation)	-2.7 (± 2.0)	-3.8 (± 1.5)		

Statistical analyses

Statistical analysis title	Absolute change in TCS
Statistical analysis description: The primary endpoint is the absolute change in Total Clinical Score (TCS) of clinical signs (intensity of erythema, scaling and infiltration) from baseline to End of Treatment (EOT) was analyzed using a two-way ANOVA with subjects and treatments as factors. Treatment differences will be tested using Tukey's honestly significant difference method for correcting p-values. Ninety five percent (95%) confidence interval of differences between treatments will be calculated.	
Comparison groups	MC2-01 (calcipotriol) cream v MC2-01 vehicle v MC2-01 (Calcipotriol/betamethasone dipropionate) cream v Daivobet® ointment v Daivonex® cream v Daivonex® ointment
Number of subjects included in analysis	144
Analysis specification	Pre-specified
Analysis type	superiority ^[1]
P-value	≤ 0.05
Method	ANOVA

Confidence interval	
level	95 %
sides	2-sided

Notes:

[1] - 24 subject were each treated with different treatments at 6 individual test sites, which add up to 144 test sites in total

Adverse events

Adverse events information

Timeframe for reporting adverse events:

AEs were collected/assessed from the time the informed consent form was signed. AEs assessed to reasonably possibly related to the trial medication had to be followed until it was resolved or until the medical condition of the subject was stable.

Assessment type	Non-systematic
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Dictionary used

Dictionary name	MedDRA
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Dictionary version	19
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Reporting groups

Reporting group title	Test sites
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Reporting group description:

Each patient received repeatedly applications with 6 products:

- MC2-01 (calcipotriol) cream
- MC2-01 (vehicle)
- MC2-01 (Calcipotriol/betamethasone dipropionate) cream
- Daivobet (Calcipotriol/betamethasone dipropionate) ointment
- Daivonex® (calcipotriol) cream
- Daivonex® (calcipotriol) ointment

The 6 products was randomly applied by a qualified person, under non-occlusive, using a sticker to define the areas of products application, once daily, except Sundays, for a total of 24 applications.

Reporting of AEs are done by SOC and preferred terms.

Serious adverse events	Test sites		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 24 (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	Test sites		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	7 / 24 (29.17%)		
Injury, poisoning and procedural complications			
Fall			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Nervous system disorders			

Syncope subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
General disorders and administration site conditions Fewer subjects affected / exposed occurrences (all)	2 / 24 (8.33%) 2		
Gastrointestinal disorders Abdominal pain subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Respiratory, thoracic and mediastinal disorders Sore Throat subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Musculoskeletal and connective tissue disorders Shoulder pain subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Infections and infestations Common cold subjects affected / exposed occurrences (all) Flu-like symptoms subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1 1 / 24 (4.17%) 1		
Metabolism and nutrition disorders Hypoglycaemia subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported