



## Clinical trial results:

### A Phase 3, Multicenter, Double-Blind, Randomized, Placebo-Controlled Study Evaluating the Safety and Efficacy of Baricitinib in Combination with Topical Corticosteroids in Adult Patients with Moderate-to-Severe Atopic Dermatitis Who Have Experienced Failure to Cyclosporine or Are Intolerant to, or Have Contraindication to, Cyclosporine

#### Summary

EudraCT number	2017-004574-34
Trial protocol	GB NL FR AT BE PL FI ES IT
Global end of trial date	

#### Results information

Result version number	v1
This version publication date	13 December 2020
First version publication date	13 December 2020

#### Trial information

##### Trial identification

Sponsor protocol code	I4V-MC-JAIN
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##### Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01624259
WHO universal trial number (UTN)	-
Other trial identifiers	Trial Number: 16841

Notes:

#### Sponsors

Sponsor organisation name	Eli Lilly and Company
Sponsor organisation address	Lilly Corporate Center, Indianapolis, IN, United States, 46285
Public contact	Available Mon - Fri 9 AM - 5 PM EST, Eli Lilly and Company, 1 877CTLilly,
Scientific contact	Available Mon - Fri 9 AM - 5 PM EST, Eli Lilly and Company, 1 8772854559,

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	Interim
Date of interim/final analysis	19 September 2019
Is this the analysis of the primary completion data?	Yes
Primary completion date	19 September 2019
Global end of trial reached?	No

Notes:

## General information about the trial

Main objective of the trial:

The purpose of this study is to determine the efficacy and safety of baricitinib in combination with topical corticosteroids in participants with moderate to severe atopic dermatitis who have experienced failure to cyclosporine or are intolerant to, or have contraindication to cyclosporine.

Protection of trial subjects:

This study was conducted in accordance with International Conference on Harmonization (ICH) Good Clinical Practice, and the principles of the Declaration of Helsinki, in addition to following the laws and regulations of the country or countries in which a study is conducted.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	15 May 2018
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	Austria: 10
Country: Number of subjects enrolled	Netherlands: 16
Country: Number of subjects enrolled	Belgium: 26
Country: Number of subjects enrolled	Finland: 7
Country: Number of subjects enrolled	Poland: 41
Country: Number of subjects enrolled	Brazil: 48
Country: Number of subjects enrolled	Italy: 37
Country: Number of subjects enrolled	France: 39
Country: Number of subjects enrolled	Germany: 88
Country: Number of subjects enrolled	Japan: 79
Country: Number of subjects enrolled	Russian Federation: 14
Country: Number of subjects enrolled	Spain: 35
Country: Number of subjects enrolled	United Kingdom: 19
Country: Number of subjects enrolled	Switzerland: 4
Worldwide total number of subjects	463
EEA total number of subjects	318

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)	448
From 65 to 84 years	14
85 years and over	1

## Subject disposition

### Recruitment

Recruitment details:

No Text Available

### Pre-assignment

Screening details:

Results reported are for primary outcome up to Week 16, and additional efficacy and safety at Week 24 per protocol. Data beyond Week 24 will be reported after final analysis.

### 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

Arm description:

Placebo administered orally once daily in combination with topical corticosteroids.

Arm type	Experimental
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

Placebo administered orally once daily.

<b>Arm title</b>	1 mg Baricitinib
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Arm description:

1 mg Baricitinib administered orally once daily in combination with topical corticosteroids. Placebo administered orally to maintain the blind.

Arm type	Experimental
Investigational medicinal product name	Baricitinib
Investigational medicinal product code	
Other name	LY3009104
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

1 mg Baricitinib administered orally once daily.

<b>Arm title</b>	2 mg Baricitinib
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Arm description:

2 mg Baricitinib administered orally once daily in combination with topical corticosteroids. Placebo administered orally to maintain the blind.

Arm type	Experimental
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Investigational medicinal product name	Baricitinib
Investigational medicinal product code	
Other name	LY3009104
Pharmaceutical forms	Tablet
Routes of administration	Oral use
Dosage and administration details: 2 mg Baricitinib administered orally once daily.	
<b>Arm title</b>	4 mg Baricitinib

Arm description:

4 mg Baricitinib administered orally once daily in combination with topical corticosteroids. Placebo administered orally to maintain the blind.

Arm type	Placebo
Investigational medicinal product name	Baricitinib
Investigational medicinal product code	
Other name	LY3009104
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

4 mg Baricitinib administered orally once daily.

<b>Number of subjects in period 1</b>	Placebo	1 mg Baricitinib	2 mg Baricitinib
Started	93	93	185
Received at Least One Dose of Study Drug	93	93	184
Completed	72	80	173
Not completed	21	13	12
Consent withdrawn by subject	4	-	-
Physician decision	-	1	-
Adverse event, non-fatal	1	-	3
Lack of efficacy	16	10	7
Protocol deviation	-	2	2

<b>Number of subjects in period 1</b>	4 mg Baricitinib
Started	92
Received at Least One Dose of Study Drug	92
Completed	85
Not completed	7
Consent withdrawn by subject	-
Physician decision	-
Adverse event, non-fatal	1
Lack of efficacy	6
Protocol deviation	-



## Baseline characteristics

### Reporting groups

Reporting group title	Placebo
Reporting group description: Placebo administered orally once daily in combination with topical corticosteroids.	
Reporting group title	1 mg Baricitinib
Reporting group description: 1 mg Baricitinib administered orally once daily in combination with topical corticosteroids. Placebo administered orally to maintain the blind.	
Reporting group title	2 mg Baricitinib
Reporting group description: 2 mg Baricitinib administered orally once daily in combination with topical corticosteroids. Placebo administered orally to maintain the blind.	
Reporting group title	4 mg Baricitinib
Reporting group description: 4 mg Baricitinib administered orally once daily in combination with topical corticosteroids. Placebo administered orally to maintain the blind.	

Reporting group values	Placebo	1 mg Baricitinib	2 mg Baricitinib
Number of subjects	93	93	185
Age categorical Units: Subjects			
Age continuous Units: years			
arithmetic mean	38.7	38.9	37.3
standard deviation	± 13.6	± 14.0	± 13.6
Gender categorical Units: Subjects			
Female	44	35	52
Male	49	58	133
Ethnicity (NIH/OMB) Units: Subjects			
Hispanic or Latino	11	13	26
Not Hispanic or Latino	54	62	101
Unknown or Not Reported	28	18	58
Race (NIH/OMB) Units: Subjects			
American Indian or Alaska Native	0	0	0
Asian	16	19	36
Native Hawaiian or Other Pacific Islander	0	0	0
Black or African American	3	3	2
White	74	70	145
More than one race	0	1	2
Unknown or Not Reported	0	0	0
Region of Enrollment			

Units: Subjects			
Austria	1	3	2
Netherlands	3	0	9
Belgium	3	5	12
Finland	2	2	2
Poland	10	9	15
Brazil	8	10	20
Italy	11	9	13
France	9	6	16
Germany	15	18	37
Japan	15	16	32
Russia	5	2	5
Spain	7	7	15
United Kingdom	4	5	6
Switzerland	0	1	1

<b>Reporting group values</b>	4 mg Baricitinib	Total	
Number of subjects	92	463	
Age categorical			
Units: Subjects			

Age continuous			
Units: years			
arithmetic mean	38.7		
standard deviation	± 13.3	-	
Gender categorical			
Units: Subjects			
Female	35	166	
Male	57	297	
Ethnicity (NIH/OMB)			
Units: Subjects			
Hispanic or Latino	14	64	
Not Hispanic or Latino	55	272	
Unknown or Not Reported	23	127	
Race (NIH/OMB)			
Units: Subjects			
American Indian or Alaska Native	0	0	
Asian	18	89	
Native Hawaiian or Other Pacific Islander	0	0	
Black or African American	3	11	
White	71	360	
More than one race	0	3	
Unknown or Not Reported	0	0	
Region of Enrollment			
Units: Subjects			
Austria	4	10	
Netherlands	4	16	
Belgium	6	26	
Finland	1	7	
Poland	7	41	



Brazil	10	48	
Italy	4	37	
France	8	39	
Germany	18	88	
Japan	16	79	
Russia	2	14	
Spain	6	35	
United Kingdom	4	19	
Switzerland	2	4	

## End points

### End points reporting groups

Reporting group title	Placebo
Reporting group description: Placebo administered orally once daily in combination with topical corticosteroids.	
Reporting group title	1 mg Baricitinib
Reporting group description: 1 mg Baricitinib administered orally once daily in combination with topical corticosteroids. Placebo administered orally to maintain the blind.	
Reporting group title	2 mg Baricitinib
Reporting group description: 2 mg Baricitinib administered orally once daily in combination with topical corticosteroids. Placebo administered orally to maintain the blind.	
Reporting group title	4 mg Baricitinib
Reporting group description: 4 mg Baricitinib administered orally once daily in combination with topical corticosteroids. Placebo administered orally to maintain the blind.	

### Primary: Percentage of Participants Achieving Eczema Area and Severity Index 75 (EASI75) (Placebo, 2 mg or 4 mg Baricitinib)

End point title	Percentage of Participants Achieving Eczema Area and Severity Index 75 (EASI75) (Placebo, 2 mg or 4 mg Baricitinib) <sup>[1]</sup>
End point description: The EASI assesses objective physician estimates of 2 dimensions of atopic dermatitis - disease extent and clinical signs affected: 0 = 0%; 1 = 1-9%; 2 = 10-29%; 3 = 30-49%; 4 = 50-69%; 5 = 70-89%; 6 = 90-100% and the severity of 4 clinical signs: (1) erythema, (2) edema/papulation, (3) excoriation, and (4) lichenification each on a scale of 0 to 3 (0 = none, absent; 1 = mild; 2 = moderate; 3 = severe) at 4 body sites (head/neck, trunk, upper limbs, and lower limbs). Half scores are allowed between severities 1, 2, and 3. The final EASI score was obtained by weight-averaging these 4 scores and will range from 0 (no disease) to 72 (severe disease). The EASI75 is defined as a ≥ 75% improvement from baseline in the EASI score.	
Analysis Population Description (APD): All participants randomized to placebo, 2 mg or 4 mg of study drug.	
End point type	Primary
End point timeframe: Week 16	

#### Notes:

[1] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period. Justification: Per protocol, outcome measure assessed participants in 2 mg and 4 mg Baricitinib treatment arms.

End point values	Placebo	2 mg Baricitinib	4 mg Baricitinib	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	93	185	92	
Units: percentage of participants				
number (confidence interval 95%)	17.2 (10.9 to 26.1)	27.6 (21.6 to 34.4)	31.5 (22.9 to 41.6)	

## Statistical analyses

<b>Statistical analysis title</b>	EASI75 - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	278
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.071
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.78
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.95
upper limit	3.32

<b>Statistical analysis title</b>	EASI75 - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	185
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.031
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	2.15
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.07
upper limit	4.3

## Secondary: Percentage of Participants Achieving EASI75 (Placebo, 1 mg Baricitinib)

End point title	Percentage of Participants Achieving EASI75 (Placebo, 1 mg Baricitinib) <sup>[2]</sup>
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### End point description:

The EASI assesses objective physician estimates of 2 dimensions of atopic dermatitis - disease extent and clinical signs affected: 0 = 0%; 1 = 1-9%; 2 = 10-29%; 3 = 30-49%; 4 = 50-69%; 5 = 70-89%; 6 = 90-100% and the severity of 4 clinical signs: (1) erythema, (2) edema/papulation, (3) excoriation, and (4) lichenification each on a scale of 0 to 3 (0 = none, absent; 1 = mild; 2 = moderate; 3 = severe) at 4 body sites (head/neck, trunk, upper limbs, and lower limbs). Half scores are allowed between severities 1, 2, and 3. The final EASI score was obtained by weight-averaging these 4 scores and will

range from 0 (no disease) to 72 (severe disease). Missing values were imputed using Non-Responder Imputation (NRI), where non-responders were participants who permanently discontinued, are rescued, or are without at least 1 post-baseline observation.

APD: All participants randomized to placebo or 1 mg of study drug.

End point type	Secondary
End point timeframe:	
Week 16	

Notes:

[2] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Per protocol, outcome measure assessed participants in the placebo and 1 mg Baricitinib treatment arms.

End point values	Placebo	1 mg Baricitinib		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	93	93		
Units: percentage of participants				
number (confidence interval 95%)	17.2 (10.9 to 26.1)	22.6 (15.3 to 32.1)		

## Statistical analyses

Statistical analysis title	EASI75 - 1 mg
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	186
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.427
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.34
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.65
upper limit	2.77

## Secondary: Percentage of Participants Achieving IGA of 0 or 1 with a $\geq 2$ Point Improvement

End point title	Percentage of Participants Achieving IGA of 0 or 1 with a $\geq 2$ Point Improvement
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End point description:

The IGA measures the investigator's global assessment of the participant's overall severity of their AD, based on a static, numeric 5-point scale from 0 (clear skin) to 4 (severe disease). The score is based on an overall assessment of the degree of erythema, papulation/induration, oozing/crusting, and lichenification.

APD: All randomized participants.

End point type	Secondary
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End point timeframe:

Week 16

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	93	93	185	92
Units: percentage of participants				
number (confidence interval 95%)	9.7 (5.2 to 17.4)	12.9 (7.5 to 21.2)	15.1 (10.7 to 21.0)	21.7 (14.5 to 31.2)

### Statistical analyses

<b>Statistical analysis title</b>	IGA of 0 or 1 - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	186
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.513
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.35
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.55
upper limit	3.35

<b>Statistical analysis title</b>	IGA of 0 or 1 - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	278
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.242
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.73
upper limit	3.53

<b>Statistical analysis title</b>	IGA of 0 or 1 - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	185
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.03
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	2.54
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.09
upper limit	5.9

## Secondary: Percentage of Participants Achieving EASI90

End point title	Percentage of Participants Achieving EASI90
End point description:	
<p>The EASI assesses objective physician estimates of 2 dimensions of atopic dermatitis - disease extent and clinical signs affected: 0 = 0%; 1 = 1-9%; 2 = 10-29%; 3 = 30-49%; 4 = 50-69%; 5 = 70-89%; 6 = 90-100% and the severity of 4 clinical signs: (1) erythema, (2) edema/papulation, (3) excoriation, and (4) lichenification each on a scale of 0 to 3 (0 = none, absent; 1 = mild; 2 = moderate; 3 = severe) at 4 body sites (head/neck, trunk, upper limbs, and lower limbs). Half scores are allowed between severities 1, 2, and 3. The final EASI score was obtained by weight-averaging these 4 scores and will range from 0 (no disease) to 72 (severe disease). The EASI90 is defined as a <math>\geq 90\%</math> improvement from baseline in the EASI score.</p>	
APD: All randomized participants.	
End point type	Secondary
End point timeframe:	
Week 16	

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	93	93	185	92
Units: percentage of participants				
number (confidence interval 95%)	6.5 (3.0 to 13.4)	8.6 (4.4 to 16.1)	10.3 (6.7 to 15.5)	14.1 (8.4 to 22.7)

## Statistical analyses

<b>Statistical analysis title</b>	EASI90 - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	186
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.611
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.32
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.45
upper limit	3.83

<b>Statistical analysis title</b>	EASI90 - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	278
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.325
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.59
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.63
upper limit	3.99

<b>Statistical analysis title</b>	EASI90 - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	185
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	2.29
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.85
upper limit	6.14

## Secondary: Percent Change from Baseline in EASI Score

End point title	Percent Change from Baseline in EASI Score
End point description: The EASI assesses objective physician estimates of 2 dimensions of atopic dermatitis - disease extent and clinical signs affected: 0 = 0%; 1 = 1-9%; 2 = 10-29%; 3 = 30-49%; 4 = 50-69%; 5 = 70-89%; 6 = 90-100% and the severity of 4 clinical signs: (1) erythema, (2) edema/papulation, (3) excoriation, and (4) lichenification each on a scale of 0 to 3 (0 = none, absent; 1 = mild; 2 = moderate; 3 = severe) at 4 body sites (head/neck, trunk, upper limbs, and lower limbs). Half scores are allowed between severities 1, 2, and 3. The final EASI score was obtained by weight-averaging these 4 scores and will range from 0 (no disease) to 72 (severe disease). Least Squares Mean (LSM) were calculated using mixed model repeated measures (MMRM) model with treatment, region, baseline disease severity (IGA), visit, and treatment-by-visit-interaction as fixed categorical effects and baseline score and baseline score-by-visit-interaction as fixed continuous effects.	
End point type	Secondary
End point timeframe: Baseline, Week 16	
APD: All randomized participants with Week 16 EASI data.	

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	54	61	144	65
Units: percent change				
least squares mean (standard error)	-42.69 ( $\pm$ 4.135)	-60.34 ( $\pm$ 4.018)	-56.05 ( $\pm$ 2.755)	-63.31 ( $\pm$ 3.922)

## Statistical analyses

Statistical analysis title	PCFB EASI - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	115
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.002
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-17.65
Confidence interval	
level	95 %
sides	2-sided
lower limit	-28.71
upper limit	-6.58
Variability estimate	Standard error of the mean
Dispersion value	5.627



<b>Statistical analysis title</b>	PCFB EASI - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	198
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.006
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-13.35
Confidence interval	
level	95 %
sides	2-sided
lower limit	-22.83
upper limit	-3.87
Variability estimate	Standard error of the mean
Dispersion value	4.82

<b>Statistical analysis title</b>	PCFB EASI - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	119
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0002
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-20.62
Confidence interval	
level	95 %
sides	2-sided
lower limit	-31.54
upper limit	-9.7
Variability estimate	Standard error of the mean
Dispersion value	5.554

## Secondary: Percentage of Participants Achieving SCORing Atopic Dermatitis 75 (SCORAD75)

End point title	Percentage of Participants Achieving SCORing Atopic Dermatitis 75 (SCORAD75)
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### End point description:

The SCORAD index uses the rule of nines to assess disease extent and evaluates 6 clinical characteristics to determine disease severity: (1) erythema, (2) edema/papulation, (3)oozing/crusts, (4) excoriation, (5) lichenification, and (6) dryness on a scale of 0 to 3 (0=absence, 1=mild, 2=moderate, 3=severe). The SCORAD index also assesses subjective symptoms of pruritus and sleep loss with a visual analogue scales (VAS) where 0 is no itching or no trouble sleeping and 10 is unbearable itching or a lot of trouble sleeping. These 3 aspects: extent of disease (A: 0-1-2), disease severity (B: 0-18), &

subjective symptoms (C: 0-20) combine using  $A/5 + 7*B/2 + C$  to give a maximum possible score of 103, where 0 = no disease and 103 = severe disease.  
The SCORAD75 responder is defined as a participant who achieves a  $\geq 75\%$  improvement from baseline in the SCORAD score.

APD: All randomized participants.

End point type	Secondary
End point timeframe:	
Week 16	

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	93	93	185	92
Units: percentage of participants				
number (confidence interval 95%)	1.1 (0.2 to 5.8)	6.5 (3.0 to 13.4)	8.1 (5.0 to 12.9)	6.5 (3.0 to 13.5)

## Statistical analyses

<b>Statistical analysis title</b>	SCORAD75 - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	186
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.115
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	4.14
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.71
upper limit	24.29

<b>Statistical analysis title</b>	SCORAD75 - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	278
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.037
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	5.85

Confidence interval	
level	95 %
sides	2-sided
lower limit	1.11
upper limit	30.88

<b>Statistical analysis title</b>	SCORAD75 - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	185
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.083
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	4.78
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.81
upper limit	28.08

### Secondary: Percentage of Participants Achieving a 4-Point Improvement in Itch Numeric Rating Scale (NRS)

End point title	Percentage of Participants Achieving a 4-Point Improvement in Itch Numeric Rating Scale (NRS)
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End point description:

The Itch NRS is a participant-administered, 11-point horizontal scale anchored at 0 and 10, with 0 representing "no itch" and 10 representing "worst itch imaginable." Overall severity of a participant's itching is indicated by selecting the number, using a daily diary, that best describes the worst level of itching in the past 24 hours.

All randomized participants with a baseline Itch NRS score  $\geq 4$ .

End point type	Secondary
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End point timeframe:

Week 16

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	85	78	166	76
Units: percentage of participants				
number (confidence interval 95%)	8.2 (4.0 to 16.0)	23.1 (15.1 to 33.6)	22.9 (17.2 to 29.9)	38.2 (28.1 to 49.4)

### Statistical analyses

<b>Statistical analysis title</b>	NRS - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	163
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.012
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	3.28
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.29
upper limit	8.32

<b>Statistical analysis title</b>	NRS - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	251
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.002
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	3.71
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.59
upper limit	8.66

<b>Statistical analysis title</b>	NRS - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib

Number of subjects included in analysis	161
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.00002
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	6.85
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.79
upper limit	16.82

## Secondary: Change from Baseline in the Score of Item 2 of the Atopic Dermatitis Sleep Scale (ADSS)

End point title	Change from Baseline in the Score of Item 2 of the Atopic Dermatitis Sleep Scale (ADSS)
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### End point description:

The ADSS is a 3-item, participant-administered questionnaire developed to assess the impact of itch on sleep including difficulty falling asleep due to itch, frequency of waking due to itch, and difficulty getting back to sleep last night due to itch. Item 2 frequency of waking last night is reported by selecting the number of times they woke up each night, ranging from 0 to 29 times, where the higher a number indicates a worse outcome. The ADSS is designed to be completed daily, using a daily diary, with respondents thinking about sleep "last night." Each item is scored individually.

LS Mean were calculated using an MMRM model with treatment, region, baseline disease severity (IGA), visit, and treatment-by-visit-interaction as fixed categorical and baseline and baseline-by-visit-interaction as fixed continuous effects.

All randomized participants with Week 16 ADSS Item 2 (frequency of waking) data.

End point type	Secondary
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### End point timeframe:

Baseline, Week 16

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	53	62	135	66
Units: units on a scale				
least squares mean (standard error)	-0.63 (± 0.149)	-1.05 (± 0.142)	-0.85 (± 0.099)	-1.42 (± 0.140)

## Statistical analyses

Statistical analysis title	Change from Baseline (CFB) ADSS - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib

Number of subjects included in analysis	115
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.039
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.42
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.82
upper limit	-0.02
Variability estimate	Standard error of the mean
Dispersion value	0.203

<b>Statistical analysis title</b>	CFB ADSS - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	188
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.23
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.21
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.56
upper limit	0.13
Variability estimate	Standard error of the mean
Dispersion value	0.175

<b>Statistical analysis title</b>	CFB ADSS - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	119
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.79
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.18
upper limit	-0.39

Variability estimate	Standard error of the mean
Dispersion value	0.201

## Secondary: Change from Baseline in Skin Pain NRS

End point title	Change from Baseline in Skin Pain NRS
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End point description:

Skin Pain NRS is a participant-administered, 11-point horizontal scale anchored at 0 and 10, with 0 representing "no pain" and 10 representing "worst pain imaginable." Overall severity of a participant's skin pain is indicated by selecting the number, using a daily diary, that best describes the worst level of skin pain in the past 24 hours.

LS Mean were calculated using MMRM model includes treatment, region, baseline disease severity (IGA), visit, and treatment-by-visit-interaction as fixed categorical effects and baseline and baseline-by-visit-interaction as fixed continuous effects.

APD: All randomized participants with Week 16 Skin Pain NRS data.

End point type	Secondary
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End point timeframe:

Baseline, Week 16

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	53	62	135	66
Units: units on a scale				
least squares mean (standard error)	-1.56 (± 0.284)	-2.27 (± 0.274)	-2.40 (± 0.193)	-3.02 (± 0.271)

## Statistical analyses

Statistical analysis title	CFB Skin Pain NRS - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	115
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0714
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.47
upper limit	0.06
Variability estimate	Standard error of the mean
Dispersion value	0.388

<b>Statistical analysis title</b>	CFB Skin Pain NRS - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	188
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0134
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.84
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.5
upper limit	-0.17
Variability estimate	Standard error of the mean
Dispersion value	0.337

<b>Statistical analysis title</b>	CFB Skin Pain NRS - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	119
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0002
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-1.45
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.21
upper limit	-0.69
Variability estimate	Standard error of the mean
Dispersion value	0.386

## Secondary: Percentage of Participants Achieving IGA of 0 or 1 with a $\geq 2$ -point improvement

End point title	Percentage of Participants Achieving IGA of 0 or 1 with a $\geq 2$ -point improvement
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End point description:

The IGA measures the investigator's global assessment of the participant's overall severity of their AD, based on a static, numeric 5-point scale from 0 (clear skin) to 4 (severe disease). The score is based on an overall assessment of the degree of erythema, papulation/induration, oozing/crusting, and lichenification.

APD: All randomized participants.



End point type	Secondary
End point timeframe:	
24 Weeks	

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	93	93	185	92
Units: percentage of participants				
number (confidence interval 95%)	12.9 (7.5 to 21.2)	20.4 (13.5 to 29.7)	18.9 (13.9 to 25.2)	13.0 (7.6 to 21.4)

### Statistical analyses

<b>Statistical analysis title</b>	IGA of 0 or 1 - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	186
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.183
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.71
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.78
upper limit	3.75

<b>Statistical analysis title</b>	IGA of 0 or 1 - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	278
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.235
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.54
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.76
upper limit	3.11

<b>Statistical analysis title</b>	IGA of 0 or 1 - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	185
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.991
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.01
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.43
upper limit	2.36

## Secondary: Percentage of Participants Achieving EASI50

End point title	Percentage of Participants Achieving EASI50
End point description:	
<p>The EASI assesses objective physician estimates of 2 dimensions of atopic dermatitis - disease extent and clinical signs affected: 0 = 0%; 1 = 1-9%; 2 = 10-29%; 3 = 30-49%; 4 = 50-69%; 5 = 70-89%; 6 = 90-100% and the severity of 4 clinical signs: (1) erythema, (2) edema/papulation, (3) excoriation, and (4) lichenification each on a scale of 0 to 3 (0 = none, absent; 1 = mild; 2 = moderate; 3 = severe) at 4 body sites (head/neck, trunk, upper limbs, and lower limbs). Half scores are allowed between severities 1, 2, and 3. The final EASI score was obtained by weight-averaging these 4 scores and will range from 0 (no disease) to 72 (severe disease). The EASI50 is defined as a <math>\geq 50\%</math> improvement from baseline in the EASI score.</p>	
APD: All randomized participants.	
End point type	Secondary
End point timeframe:	
Week 16	

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	93	93	185	92
Units: percentage of participants				
number (confidence interval 95%)	35.5 (26.5 to 45.6)	45.2 (35.4 to 55.3)	51.4 (44.2 to 58.5)	52.2 (42.1 to 62.1)

## Statistical analyses

<b>Statistical analysis title</b>	EASI50 - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	186
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.263
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.41
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.77
upper limit	2.57

<b>Statistical analysis title</b>	EASI50 - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	278
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.016
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.89
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.13
upper limit	3.19

<b>Statistical analysis title</b>	EASI50 - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	185
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.031
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.93
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.06
upper limit	3.52

## Secondary: Percentage of Participants Achieving EASI75

End point title	Percentage of Participants Achieving EASI75
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End point description:

The EASI assesses objective physician estimates of 2 dimensions of atopic dermatitis - disease extent and clinical signs affected: 0 = 0%; 1 = 1-9%; 2 = 10-29%; 3 = 30-49%; 4 = 50-69%; 5 = 70-89%; 6 = 90-100% and the severity of 4 clinical signs: (1) erythema, (2) edema/papulation, (3) excoriation, and (4) lichenification each on a scale of 0 to 3 (0 = none, absent; 1 = mild; 2 = moderate; 3 = severe) at 4 body sites (head/neck, trunk, upper limbs, and lower limbs). Half scores are allowed between severities 1, 2, and 3. The final EASI score was obtained by weight-averaging these 4 scores and will range from 0 (no disease) to 72 (severe disease). The EASI75 is defined as a  $\geq 75\%$  improvement from baseline in the EASI score.

APD: All randomized participants.

End point type	Secondary
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End point timeframe:

Week 24

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	93	93	185	92
Units: percentage of participants				
number (confidence interval 95%)	17.2 (10.9 to 26.1)	30.1 (21.7 to 40.1)	27.6 (21.6 to 34.4)	25.0 (17.3 to 34.7)

## Statistical analyses

Statistical analysis title	EASI75 - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	186
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.058
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.97
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.98
upper limit	3.96

Statistical analysis title	EASI75 - 2 mg Baricitinib
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Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	278
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.072
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.77
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.95
upper limit	3.32

<b>Statistical analysis title</b>	EASI75 - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	185
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.224
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	1.56
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.76
upper limit	3.18

### Secondary: Percentage of Participants Achieving IGA of 0

End point title	Percentage of Participants Achieving IGA of 0
End point description:	
The IGA measures the investigator's global assessment of the participant's overall severity of their AD, based on a static, numeric 5-point scale from 0 (clear skin) to 4 (severe disease). The score is based on an overall assessment of the degree of erythema, papulation/induration, oozing/crusting, and lichenification.	
APD: All randomized participants.	
End point type	Secondary
End point timeframe:	
Week 16	

<b>End point values</b>	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	93	93	185	92
Units: percentage of participants				
number (confidence interval 95%)	0.0 (0.0 to 4.0)	2.2 (0.6 to 7.5)	1.1 (0.3 to 3.9)	3.3 (1.1 to 9.2)

## Statistical analyses

<b>Statistical analysis title</b>	IGA of 0 - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	186
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.265
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	5.03
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.29
upper limit	86.08

<b>Statistical analysis title</b>	IGA of 0 - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	278
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.52
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	2.54
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.15
upper limit	43.09

<b>Statistical analysis title</b>	IGA of 0 - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib

Number of subjects included in analysis	185
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.164
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	7.17
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.45
upper limit	99.99

## Secondary: Change from Baseline in SCORAD

End point title	Change from Baseline in SCORAD
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End point description:

The SCORAD index uses the rule of nines to assess disease extent and evaluates 6 clinical characteristics to determine disease severity: (1) erythema, (2) edema/papulation, (3) oozing/crusts, (4) excoriation, (5) lichenification, and (6) dryness on a scale of 0 to 3 (0=absence, 1=mild, 2=moderate, 3=severe). The SCORAD index also assesses subjective symptoms of pruritus and sleep loss with VAS where 0 is no itching or no trouble sleeping and 10 is unbearable itching or a lot of trouble sleeping. These 3 aspects: extent of disease (A: 0-1-2), disease severity (B: 0-18), & subjective symptoms (C: 0-20) combine using  $A/5 + 7*B/2 + C$  to give a maximum possible score of 103, where 0 = no disease and 103 = severe disease.

LS Mean were calculated using MMRM model with treatment, region, baseline disease severity (IGA), visit, and treatment-by-visit-interaction as fixed categorical effects and baseline and baseline-by-visit-interaction as fixed continuous effects.

End point type	Secondary
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End point timeframe:

Baseline, Week 16

APD: All randomized participants with Week 16 SCORAD data.

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	54	60	142	64
Units: units on a scale				
least squares mean (standard error)	-21.98 ( $\pm$ 2.171)	-28.06 ( $\pm$ 2.097)	-28.54 ( $\pm$ 1.438)	-31.74 ( $\pm$ 2.052)

## Statistical analyses

Statistical analysis title	CFB SCORAD - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib

Number of subjects included in analysis	114
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.04
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-6.08
Confidence interval	
level	95 %
sides	2-sided
lower limit	-11.88
upper limit	-0.29
Variability estimate	Standard error of the mean
Dispersion value	2.948

<b>Statistical analysis title</b>	CFB SCORAD - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	196
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.01
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-6.56
Confidence interval	
level	95 %
sides	2-sided
lower limit	-11.54
upper limit	-1.58
Variability estimate	Standard error of the mean
Dispersion value	2.533

<b>Statistical analysis title</b>	CFB SCORAD - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	118
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-9.77
Confidence interval	
level	95 %
sides	2-sided
lower limit	-15.51
upper limit	-4.03



Variability estimate	Standard error of the mean
Dispersion value	2.919

## Secondary: Percentage of Participants Achieving SCORAD90

End point title	Percentage of Participants Achieving SCORAD90
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End point description:

The SCORAD index uses the rule of nines to assess disease extent and evaluates 6 clinical characteristics to determine disease severity: (1) erythema, (2) edema/papulation, (3)oozing/crusts, (4) excoriation, (5) lichenification, and (6) dryness on a scale of 0 to 3 (0=absence, 1=mild, 2=moderate, 3=severe). The SCORAD index also assesses subjective symptoms of pruritus and sleep loss with a visual analogue scales (VAS) where 0 is no itching or no trouble sleeping and 10 is unbearable itching or a lot of trouble sleeping. These 3 aspects: extent of disease (A: 0-1-2), disease severity (B: 0-18), & subjective symptoms (C: 0-20) combine using  $A/5 + 7*B/2 + C$  to give a maximum possible score of 103, where 0 = no disease and 103 = severe disease. The SCORAD90 responder is defined as a participant who achieves a  $\geq 90\%$  improvement from baseline in the SCORAD score.

APD: All randomized participants.

End point type	Secondary
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End point timeframe:

Week 16

APD: All randomized participants.

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	93	93	185	92
Units: percentage of participants				
number (confidence interval 95%)	0.0 (0.0 to 4.0)	2.2 (0.6 to 7.5)	1.1 (0.3 to 3.9)	2.2 (0.6 to 7.6)

## Statistical analyses

Statistical analysis title	SCORAD90 - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	186
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.265
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	4.75
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.31
upper limit	73.93

<b>Statistical analysis title</b>	SCORAD90 - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	278
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.511
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	2.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.16
upper limit	38.4

<b>Statistical analysis title</b>	SCORAD90 - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	185
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.253
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	4.95
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.32
upper limit	77.11

## Secondary: Change from Baseline in Body Surface Area (BSA) Affected

End point title	Change from Baseline in Body Surface Area (BSA) Affected
End point description:	
<p>The BSA affected by AD will be assessed for 4 separate body regions and is collected as part of the EASI assessment: head and neck, trunk (including genital region), upper extremities, and lower extremities (including the buttocks). Each body region will be assessed for disease extent ranging from 0% to 100% involvement. The overall total percentage will be reported based off of all 4 body regions combined, after applying specific multipliers to the different body regions to account for the percent of the total BSA represented by each of the 4 regions. Use the percentage of skin affected for each region (0 to 100%) in EASI as follows: <math>BSA\ Total = 0.1 * BSA_{head\ and\ neck} + 0.3 * BSA_{trunk} + 0.2 * BSA_{upper\ limbs} + 0.4 * BSA_{lower\ limbs}</math>.</p> <p>LS Mean were calculated using MMRM model with treatment, region, baseline disease severity (IGA), visit, and treatment-by-visit-interaction as fixed categorical effects and baseline-by-visit-interaction as fixed continuous effects.</p>	
End point type	Secondary

End point timeframe:

Baseline, Week 16

APD: All randomized participants with Week 16 BSA data.

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	54	61	144	65
Units: units on a scale				
least squares mean (standard error)	-19.76 ( $\pm$ 2.257)	-25.98 ( $\pm$ 2.178)	-25.26 ( $\pm$ 1.488)	-28.17 ( $\pm$ 2.125)

### Statistical analyses

Statistical analysis title	CFB BSA - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	115
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.044
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-6.21
Confidence interval	
level	95 %
sides	2-sided
lower limit	-12.26
upper limit	-0.16
Variability estimate	Standard error of the mean
Dispersion value	3.078

Statistical analysis title	CFB BSA - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	198
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.037
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-5.5

Confidence interval	
level	95 %
sides	2-sided
lower limit	-10.67
upper limit	-0.32
Variability estimate	Standard error of the mean
Dispersion value	2.632

<b>Statistical analysis title</b>	CFB BSA - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	119
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.006
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-8.41
Confidence interval	
level	95 %
sides	2-sided
lower limit	-14.37
upper limit	-2.45
Variability estimate	Standard error of the mean
Dispersion value	3.03

### **Secondary: Percentage of Participants Developing Skin Infections Requiring Antibiotic Treatment**

End point title	Percentage of Participants Developing Skin Infections Requiring Antibiotic Treatment
End point description: Percentage of participants developing skin infections requiring antibiotic treatment.	
APD: All randomized participants who received at least one dose of study drug and who did not discontinue from the study for the reason of "Lost to Follow-up" at the first post-baseline visit.	
End point type	Secondary
End point timeframe: Week 16	

<b>End point values</b>	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	93	93	184	92
Units: percentage of participants				
number (not applicable)	5.4	6.5	6.5	5.4

### Statistical analyses

<b>Statistical analysis title</b>	Skin Infections - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	186
Analysis specification	Pre-specified
Analysis type	superiority
P-value	> 0.999
Method	Fisher exact

<b>Statistical analysis title</b>	Skin Infections - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	277
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.797
Method	Fisher exact

<b>Statistical analysis title</b>	Skin Infections - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	185
Analysis specification	Pre-specified
Analysis type	superiority
P-value	> 0.999
Method	Fisher exact

### Secondary: Mean Number of Days without Topical Corticosteroids (TCS) Use

End point title	Mean Number of Days without Topical Corticosteroids (TCS) Use
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End point description:

The ANCOVA model includes treatment, region, and baseline disease severity (IGA) as factors.

APD: All randomized participants without use of TCS.

End point type	Secondary
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End point timeframe:

Week 16

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	89	92	178	89
Units: days				
least squares mean (standard error)	12.18 ( $\pm$ 3.39)	20.80 ( $\pm$ 3.37)	17.65 ( $\pm$ 2.53)	19.43 ( $\pm$ 3.41)

## Statistical analyses

<b>Statistical analysis title</b>	TCS - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	181
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.056
Method	ANCOVA
Parameter estimate	Mean difference (final values)
Point estimate	8.62
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.22
upper limit	17.45
Variability estimate	Standard error of the mean
Dispersion value	4.49

<b>Statistical analysis title</b>	TCS - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	267
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.164
Method	ANCOVA
Parameter estimate	Mean difference (final values)
Point estimate	5.48
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.24
upper limit	13.19

Variability estimate	Standard error of the mean
Dispersion value	3.92

<b>Statistical analysis title</b>	TCS - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	178
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.11
Method	ANCOVA
Parameter estimate	Mean difference (final values)
Point estimate	7.25
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.66
upper limit	16.15
Variability estimate	Standard error of the mean
Dispersion value	4.53

### Secondary: Mean Gram Quantity of Low and Moderate Potency Background Topical Corticosteroid (TCS) Used (Tube Weights)

End point title	Mean Gram Quantity of Low and Moderate Potency Background Topical Corticosteroid (TCS) Used (Tube Weights)
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End point description:

Average weights of full tubes were used to determine the dispensed weights for each region. Returned tubes were weighed with cap without carton to determine the amount of TCS in grams (g) used at each visit. Analysis was done via analysis of variance (ANOVA), with geographic region, baseline disease severity, and treatment as factors in the model.

APD: All randomized participants.

End point type	Secondary
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End point timeframe:

Week 16

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	93	93	185	92
Units: grams				
least squares mean (standard error)	242.59 (± 27.60)	194.53 (± 27.42)	185.70 (± 20.67)	171.17 (± 27.16)

## Statistical analyses

<b>Statistical analysis title</b>	Low and Moderate Potency TCS - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	186
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.178
Method	ANOVA
Parameter estimate	Mean difference (final values)
Point estimate	-48.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	-118
upper limit	21.88
Variability estimate	Standard error of the mean
Dispersion value	35.63

<b>Statistical analysis title</b>	Low and Moderate Potency TCS - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	278
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.066
Method	ANOVA
Parameter estimate	Mean difference (final values)
Point estimate	-56.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-117.56
upper limit	3.77
Variability estimate	Standard error of the mean
Dispersion value	30.9

<b>Statistical analysis title</b>	Low and Moderate Potency TCS - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	185
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.045
Method	ANOVA
Parameter estimate	Mean difference (final values)
Point estimate	-71.42



Confidence interval	
level	95 %
sides	2-sided
lower limit	-141.24
upper limit	-1.6
Variability estimate	Standard error of the mean
Dispersion value	35.57

## Secondary: Percent Change from Baseline in Itch NRS

End point title	Percent Change from Baseline in Itch NRS
-----------------	------------------------------------------

End point description:

The Itch NRS is a participant-administered, 11-point horizontal scale, with 0 representing "no itch" and 10 representing "worst itch imaginable." Overall severity of a participant's itching is indicated by selecting the number, using a daily diary, that best describes the worst level of itching in the past 24 hours.

LS Means were calculated using MMRM model with treatment, region, baseline disease severity, visit, and treatment-by-visit-interaction as fixed categorical effects and baseline and baseline-by-interaction as fixed continuous effects.

APD: All randomized participants with Week 16 Itch NRS data.

End point type	Secondary
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End point timeframe:

Baseline, Week 16

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	53	62	135	66
Units: percent change				
least squares mean (standard error)	-17.48 (± 4.835)	-28.80 (± 4.663)	-32.89 (± 3.258)	-37.24 (± 4.609)

## Statistical analyses

Statistical analysis title	PCFB Itch NRS - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	115
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.088
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-11.32

Confidence interval	
level	95 %
sides	2-sided
lower limit	-24.33
upper limit	1.7
Variability estimate	Standard error of the mean
Dispersion value	6.62

<b>Statistical analysis title</b>	PCFB Itch NRS - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	188
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.007
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-15.41
Confidence interval	
level	95 %
sides	2-sided
lower limit	-26.67
upper limit	-4.16
Variability estimate	Standard error of the mean
Dispersion value	5.725

<b>Statistical analysis title</b>	PCFB Itch NRS - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	119
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.003
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-19.76
Confidence interval	
level	95 %
sides	2-sided
lower limit	-32.71
upper limit	-6.82
Variability estimate	Standard error of the mean
Dispersion value	6.583

## Secondary: Percent Change From Baseline in Itch NRS at Week 24

End point title	Percent Change From Baseline in Itch NRS at Week 24
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**End point description:**

The Itch NRS is a participant-administered, 11-point horizontal scale, with 0 representing "no itch" and 10 representing "worst itch imaginable." Overall severity of a participant's itching is indicated by selecting the number, using a daily diary, that best describes the worst level of itching in the past 24 hours.

LS Means were calculated using MMRM model with treatment, region, baseline disease severity, visit, and treatment-by-visit-interaction as fixed categorical effects and baseline and baseline-by-interaction as fixed continuous effects.

APD: All randomized participants with Week 24 Itch NRS data.

End point type	Secondary
End point timeframe:	
Baseline, Week 24	

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	35	50	108	54
Units: units on a scale				
least squares mean (standard error)	-15.35 ( $\pm$ 5.349)	-29.35 ( $\pm$ 5.039)	-30.11 ( $\pm$ 3.495)	-33.16 ( $\pm$ 4.972)

**Statistical analyses**

<b>Statistical analysis title</b>	PCFB Itch NRS - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	85
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.055
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-14
Confidence interval	
level	95 %
sides	2-sided
lower limit	-28.28
upper limit	0.28
Variability estimate	Standard error of the mean
Dispersion value	7.263

<b>Statistical analysis title</b>	PCFB Itch NRS - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib

Number of subjects included in analysis	143
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.02
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-14.76
Confidence interval	
level	95 %
sides	2-sided
lower limit	-27.15
upper limit	-2.38
Variability estimate	Standard error of the mean
Dispersion value	6.297

<b>Statistical analysis title</b>	PCFB Itch NRS - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	89
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.014
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-17.82
Confidence interval	
level	95 %
sides	2-sided
lower limit	-32.01
upper limit	-3.62
Variability estimate	Standard error of the mean
Dispersion value	7.216

## Secondary: Change from Baseline in the Total Score of the Patient Oriented Eczema Measure (POEM)

End point title	Change from Baseline in the Total Score of the Patient Oriented Eczema Measure (POEM)
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### End point description:

The POEM is a 7-item self-assessment questionnaire that assesses disease symptoms (dryness, itching, flaking, cracking, sleep loss, bleeding and weeping) on a scale ranging from 0-4 (0 = no days, 1 = 1-2 days, 2 = 3-4 days, 3 = 5-6 days, 4 = everyday). The sum of the 7 items gives the total POEM score of 0 (absent disease) to 28 (severe disease). High scores are indicative of more severe disease and poor quality of life.

LS Mean were calculated using MMRM model with treatment, region, baseline disease severity (IGA), visit, and treatment-by-visit-interaction as fixed categorical effects and baseline and baseline-by visit-interactions as fixed continuous effects.

APD: All randomized participants with Week 16 POEM data.

End point type	Secondary
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End point timeframe:

Baseline, Week 16

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	55	62	145	67
Units: units on a scale				
least squares mean (standard error)	-4.18 ( $\pm$ 0.907)	-6.24 ( $\pm$ 0.872)	-7.27 ( $\pm$ 0.602)	-9.27 ( $\pm$ 0.855)

### Statistical analyses

<b>Statistical analysis title</b>	CFB POEM - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	117
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.095
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-2.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.47
upper limit	-0.36
Variability estimate	Standard error of the mean
Dispersion value	1.229

<b>Statistical analysis title</b>	CFB POEM - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	200
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.004
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-3.09
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.16
upper limit	-1.01

Variability estimate	Standard error of the mean
Dispersion value	1.057

<b>Statistical analysis title</b>	CFB POEM - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	122
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-5.09
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.48
upper limit	-2.7
Variability estimate	Standard error of the mean
Dispersion value	1.216

## Secondary: Change from Baseline in the Patient Global Impression of Severity - Atopic Dermatitis (PGI-S-AD) Score

End point title	Change from Baseline in the Patient Global Impression of Severity -Atopic Dermatitis (PGI-S-AD) Score
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End point description:

The PGI-S-AD is a single-item question asking the participant how they would rate their overall AD symptoms over the past 24 hours, using a daily diary. The 5 categories of responses are "(0) no symptoms", "(1) very mild", "(2) mild", "(3) moderate", and "(4) severe."

LS Means were calculated using MMRM model with treatment, region, baseline disease severity (IGA), visit, and treatment-by-visit-interaction as fixed categorical effects and baseline and baseline-by-visit-interaction as fixed continuous effects.

APD: All randomized participants with Week 16 PGI-S-AD data.

End point type	Secondary
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End point timeframe:

Baseline, Week 16

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	53	62	135	66
Units: units on a scale				
least squares mean (standard error)	-0.49 (± 0.107)	-0.74 (± 0.103)	-0.77 (± 0.072)	-1.07 (± 0.101)

### Statistical analyses

<b>Statistical analysis title</b>	CFB PGI-S-AD - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	115
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.097
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.24
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.53
upper limit	0.04
Variability estimate	Standard error of the mean
Dispersion value	0.146

<b>Statistical analysis title</b>	CFB PGI-S-AD - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	188
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.033
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.27
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.52
upper limit	-0.02
Variability estimate	Standard error of the mean
Dispersion value	0.126

<b>Statistical analysis title</b>	CFB PGI-S-AD - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib

Number of subjects included in analysis	119
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.001
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.58
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.86
upper limit	-0.29
Variability estimate	Standard error of the mean
Dispersion value	0.145

## Secondary: Change from Baseline on the Hospital Anxiety Depression Scale (HADS)

End point title	Change from Baseline on the Hospital Anxiety Depression Scale (HADS)
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### End point description:

The HADS is a participant-rated instrument used to assess both anxiety and depression. This instrument consists of 14 item questionnaire, each item is rated on a 4-point scale, giving maximum scores of 21 for anxiety and depression. Scores of 11 or more on either subscale are considered to be a significant 'case' of psychological morbidity, while scores of 8-10 represent 'borderline' and 0-7, 'normal.'

LS Mean were calculated using MMRM model with treatment, region, baseline disease severity (IGA), visit, and treatment-by-visit-interaction as fixed categorical effects and baseline and baseline-by-visit-interaction as fixed continuous effects.

APD: All randomized participants with Week 16 HADS data.

End point type	Secondary
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### End point timeframe:

Baseline, Week 16

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	55	62	145	67
Units: units on a scale				
least squares mean (standard error)				
Anxiety	-0.48 (± 0.382)	-1.04 (± 0.366)	-1.59 (± 0.256)	-1.32 (± 0.362)
Depression	-0.40 (± 0.383)	-0.69 (± 0.367)	-1.03 (± 0.256)	-1.57 (± 0.362)

## Statistical analyses



<b>Statistical analysis title</b>	CFB HADS - 1 mg Baricitinib
Statistical analysis description:	
HADS Anxiety	
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	117
Analysis specification	Pre-specified
Analysis type	superiority <sup>[3]</sup>
P-value	= 0.272
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.57
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.58
upper limit	0.45
Variability estimate	Standard error of the mean
Dispersion value	0.516

Notes:

[3] - Anxiety

<b>Statistical analysis title</b>	CFB HADS - 2 mg Baricitinib
Statistical analysis description:	
HADS Anxiety	
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	200
Analysis specification	Pre-specified
Analysis type	superiority <sup>[4]</sup>
P-value	= 0.013
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-1.12
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.99
upper limit	-0.24
Variability estimate	Standard error of the mean
Dispersion value	0.446

Notes:

[4] - Anxiety

<b>Statistical analysis title</b>	CFB HADS - 4 mg Baricitinib
Statistical analysis description:	
HADS Anxiety	
Comparison groups	Placebo v 4 mg Baricitinib

Number of subjects included in analysis	122
Analysis specification	Pre-specified
Analysis type	superiority <sup>[5]</sup>
P-value	= 0.099
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.85
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.85
upper limit	0.16
Variability estimate	Standard error of the mean
Dispersion value	0.511

Notes:

[5] - Anxiety

<b>Statistical analysis title</b>	CFB HADS - 1 mg Baricitinib
Statistical analysis description:	
HADS Depression	
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	117
Analysis specification	Pre-specified
Analysis type	superiority <sup>[6]</sup>
P-value	= 0.584
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.28
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.3
upper limit	0.74
Variability estimate	Standard error of the mean
Dispersion value	0.519

Notes:

[6] - Depression

<b>Statistical analysis title</b>	CFB HADS - 2 mg Baricitinib
Statistical analysis description:	
HADS Depression	
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	200
Analysis specification	Pre-specified
Analysis type	superiority <sup>[7]</sup>
P-value	= 0.162
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.63

Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.51
upper limit	0.25
Variability estimate	Standard error of the mean
Dispersion value	0.448

Notes:

[7] - Depression

<b>Statistical analysis title</b>	CFB HADS - 4 mg Baricitinib
Statistical analysis description:	
HADS Depression	
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	122
Analysis specification	Pre-specified
Analysis type	superiority <sup>[8]</sup>
P-value	= 0.024
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-1.17
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.18
upper limit	-0.15
Variability estimate	Standard error of the mean
Dispersion value	0.515

Notes:

[8] - Depression

## Secondary: Change from Baseline in the Dermatology Life Quality Index (DLQI)

End point title	Change from Baseline in the Dermatology Life Quality Index (DLQI)
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End point description:

The DLQI is a simple, participant-administered, 10 question, validated, quality-of-life questionnaire that covers 6 domains including symptoms and feelings, daily activities, leisure, work and school, personal relationships, and treatment. The recall period of this scale is over the last "week." Response categories include "not at all," "a little," "a lot," and "very much," with corresponding scores of 0, 1, 2, and 3, respectively, and unanswered or "not relevant" responses scored as "0." Scores range from 0 to 30 ("no impact on participant's life" to "extremely large effect on participant's life"), and a 4-point change from baseline is considered as the minimal clinically important difference threshold.

LS Means were calculated using MMRM model with treatment, region, baseline disease severity (IGA), visit, and treatment-by-visit-interaction as fixed categorical effects and baseline and baseline-by-visit-interaction as fixed continuous effects.

End point type	Secondary
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End point timeframe:

Baseline, Week 16

APD: All randomized participants with Week 16 DLQI data.

<b>End point values</b>	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	55	62	145	67
Units: units on a scale				
least squares mean (standard error)	-4.95 ( $\pm$ 0.752)	-6.18 ( $\pm$ 0.719)	-6.57 ( $\pm$ 0.494)	-7.95 ( $\pm$ 0.705)

## Statistical analyses

<b>Statistical analysis title</b>	CFB DLQI - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	117
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.228
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-1.23
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.23
upper limit	0.77
Variability estimate	Standard error of the mean
Dispersion value	1.018

<b>Statistical analysis title</b>	CFB DLQI - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	200
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.065
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-1.62
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.35
upper limit	0.1
Variability estimate	Standard error of the mean
Dispersion value	0.876

<b>Statistical analysis title</b>	CFB DLQI - 4 mg Baricitinib
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	122
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.003
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-3.01
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.99
upper limit	-1.02
Variability estimate	Standard error of the mean
Dispersion value	1.007

### Secondary: Change from Baseline on the Work Productivity and Activity Impairment - Atopic Dermatitis (WPAI-AD) Questionnaire

End point title	Change from Baseline on the Work Productivity and Activity Impairment - Atopic Dermatitis (WPAI-AD) Questionnaire
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End point description:

The WPAI-AD participant questionnaire was developed to measure the effect of general health and symptom severity on work productivity and regular activities in the 7 days prior to the visit. The WPAI-AD consists of 6 items grouped in 4 domains: absenteeism (work time missed), presenteeism (impairment at work/reduced on-the-job effectiveness), work productivity loss (overall work impairment/absenteeism plus presenteeism), and activity impairment, that range from 0% to 100%, with higher values indicating greater impairment.

LS Means were calculated using MMRM model with treatment, region, baseline disease severity (IGA), visit, and treatment-by-visit-interaction as fixed categorical effects and baseline and baseline-by-visit-interaction as fixed continuous effects.

APD: All randomized participants with Week 16 WPAI-AD data.

End point type	Secondary
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End point timeframe:

Baseline, Week 16

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	55	62	145	67
Units: units on a scale				
least squares mean (standard error)				
Absenteeism (37, 36, 85, 42)	-4.77 (± 2.365)	-5.69 (± 2.433)	-2.98 (± 1.639)	-4.56 (± 2.258)

Presenteeism (34, 35, 83, 39)	-14.86 (± 3.182)	-11.80 (± 3.161)	-14.56 (± 2.133)	-14.81 (± 3.000)
Work Productivity Loss (34, 35, 83, 39)	-13.22 (± 3.560)	-12.07 (± 3.565)	-13.07 (± 2.440)	-14.12 (± 3.396)
Activity Impairment (55, 62, 145, 67)	-16.46 (± 2.853)	-18.46 (± 2.729)	-20.86 (± 1.847)	-23.92 (± 2.660)

## Statistical analyses

Statistical analysis title	CFB Absenteeism - 1 mg Baricitinib
Statistical analysis description:	
Change from Baseline (CFB) Absenteeism	
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	117
Analysis specification	Pre-specified
Analysis type	superiority <sup>[9]</sup>
P-value	= 0.784
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.92
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.5
upper limit	5.67
Variability estimate	Standard error of the mean
Dispersion value	3.339

Notes:

[9] - Change from Baseline (CFB) Absenteeism

Statistical analysis title	CFB Absenteeism - 2 mg Baricitinib
Statistical analysis description:	
CFB Absenteeism	
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	200
Analysis specification	Pre-specified
Analysis type	superiority <sup>[10]</sup>
P-value	= 0.525
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	1.79
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.75
upper limit	7.34
Variability estimate	Standard error of the mean
Dispersion value	2.813

Notes:

[10] - CFB Absenteeism

Statistical analysis title	CFB Absenteeism - 4 mg Baricitinib
Statistical analysis description:	
CFB Absenteeism	
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	122
Analysis specification	Pre-specified
Analysis type	superiority <sup>[11]</sup>
P-value	= 0.947
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	0.21
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.11
upper limit	6.53
Variability estimate	Standard error of the mean
Dispersion value	3.204

Notes:

[11] - CFB Absenteeism

Statistical analysis title	CFB Presenteeism - 1 mg Baricitinib
Statistical analysis description:	
CFB Presenteeism	
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	117
Analysis specification	Pre-specified
Analysis type	superiority <sup>[12]</sup>
P-value	= 0.488
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	3.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.62
upper limit	11.74
Variability estimate	Standard error of the mean
Dispersion value	4.409

Notes:

[12] - CFB Presenteeism

Statistical analysis title	CFB Presenteeism - 2 mg Baricitinib
Statistical analysis description:	
CFB Presenteeism	
Comparison groups	Placebo v 2 mg Baricitinib

Number of subjects included in analysis	200
Analysis specification	Pre-specified
Analysis type	superiority <sup>[13]</sup>
P-value	= 0.936
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	0.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.02
upper limit	7.62
Variability estimate	Standard error of the mean
Dispersion value	3.72

Notes:

[13] - CFB Presenteeism

<b>Statistical analysis title</b>	CFB Presenteeism - 4 mg Baricitinib
Statistical analysis description:	
CFB Presenteeism	
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	122
Analysis specification	Pre-specified
Analysis type	superiority <sup>[14]</sup>
P-value	= 0.991
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	0.05
Confidence interval	
level	95 %
sides	2-sided
lower limit	-8.35
upper limit	8.45
Variability estimate	Standard error of the mean
Dispersion value	4.267

Notes:

[14] - CFB Presenteeism

<b>Statistical analysis title</b>	CFB Work Productivity Loss - 1 mg Baricitinib
Statistical analysis description:	
CFB Work Productivity Loss	
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	117
Analysis specification	Pre-specified
Analysis type	superiority <sup>[15]</sup>
P-value	= 0.816
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	1.15



Confidence interval	
level	95 %
sides	2-sided
lower limit	-8.57
upper limit	10.88
Variability estimate	Standard error of the mean
Dispersion value	4.938

Notes:

[15] - CFB Work Productivity Loss

<b>Statistical analysis title</b>	CFB Work Productivity Loss - 2 mg Baricitinib
Statistical analysis description: CFB Work Productivity Loss	
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	200
Analysis specification	Pre-specified
Analysis type	superiority <sup>[16]</sup>
P-value	= 0.971
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	0.15
Confidence interval	
level	95 %
sides	2-sided
lower limit	-8.08
upper limit	8.38
Variability estimate	Standard error of the mean
Dispersion value	4.178

Notes:

[16] - CFB Work Productivity Loss

<b>Statistical analysis title</b>	CFB Work Productivity Loss - 4 mg Baricitinib
Statistical analysis description: CFB Work Productivity Loss	
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	122
Analysis specification	Pre-specified
Analysis type	superiority <sup>[17]</sup>
P-value	= 0.852
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-10.36
upper limit	8.56
Variability estimate	Standard error of the mean
Dispersion value	4.804

Notes:

[17] - CFB Work Productivity Loss

Statistical analysis title	CFB Activity Impairment - 1 mg Baricitinib
Statistical analysis description: CFB Activity Impairment	
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	117
Analysis specification	Pre-specified
Analysis type	superiority <sup>[18]</sup>
P-value	= 0.607
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-1.99
Confidence interval	
level	95 %
sides	2-sided
lower limit	-9.61
upper limit	5.63
Variability estimate	Standard error of the mean
Dispersion value	3.877

Notes:

[18] - CFB Activity Impairment

Statistical analysis title	CFB Activity Impairment - 2 mg Baricitinib
Statistical analysis description: CFB Activity Impairment	
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	200
Analysis specification	Pre-specified
Analysis type	superiority <sup>[19]</sup>
P-value	= 0.186
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-4.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-10.92
upper limit	2.12
Variability estimate	Standard error of the mean
Dispersion value	3.319

Notes:

[19] - CFB Activity Impairment

Statistical analysis title	CFB Activity Impairment - 4 mg Baricitinib
Statistical analysis description: CFB Activity Impairment	
Comparison groups	Placebo v 4 mg Baricitinib

Number of subjects included in analysis	122
Analysis specification	Pre-specified
Analysis type	superiority <sup>[20]</sup>
P-value	= 0.052
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-7.45
Confidence interval	
level	95 %
sides	2-sided
lower limit	-14.96
upper limit	0.06
Variability estimate	Standard error of the mean
Dispersion value	3.82

Notes:

[20] - CFB Activity Impairment

### Secondary: Change from Baseline in the European Quality of Life–5 Dimensions–5 Levels (EQ-5D-5L) Index Score United States and United Kingdom Algorithm

End point title	Change from Baseline in the European Quality of Life–5 Dimensions–5 Levels (EQ-5D-5L) Index Score United States and United Kingdom Algorithm
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End point description:

The EQ-5D-5L is a 2-part measurement. The first part is comprised of the following 5 participant-reported dimensions: mobility, self-care, usual activities, pain/discomfort, and anxiety/depression. Each dimension has 5 levels: no problems, slight problems, moderate problems, severe problems, and extreme problems. The responses are used to derive the health state index scores using the United Kingdom (UK) algorithm, with scores ranging from -0.594 to 1, and the United States (US) algorithm, with scores ranging from -0.109 to 1, with higher score indicating better health state.

LS Means were calculated using MMRM model with treatment, region, baseline disease severity (IGA), visit, and treatment-by-visit-interaction as fixed categorical effects and baseline and baseline-by-visit-interaction as fixed continuous effects.

APD: All randomized participants with EQ-5D-5L US and UK Health scores.

End point type	Secondary
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End point timeframe:

Baseline, Week 16

End point values	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	55	62	145	67
Units: units on a scale				
least squares mean (standard error)				
US Health State Index	0.04 (± 0.016)	0.08 (± 0.016)	0.09 (± 0.011)	0.11 (± 0.015)
UK Health State Index	0.06 (± 0.023)	0.11 (± 0.022)	0.13 (± 0.016)	0.15 (± 0.022)

## Statistical analyses

<b>Statistical analysis title</b>	Health State Index US - 1 mg Baricitinib
Statistical analysis description: CFB US Health State Index	
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	117
Analysis specification	Pre-specified
Analysis type	superiority <sup>[21]</sup>
P-value	= 0.131
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	0.03
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.01
upper limit	0.08
Variability estimate	Standard error of the mean
Dispersion value	0.022

Notes:

[21] - CFB US Health State Index

<b>Statistical analysis title</b>	Health State Index US - 2 mg Baricitinib
Statistical analysis description: CFB US Health State Index	
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	200
Analysis specification	Pre-specified
Analysis type	superiority <sup>[22]</sup>
P-value	= 0.017
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	0.05
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.01
upper limit	0.08
Variability estimate	Standard error of the mean
Dispersion value	0.019

Notes:

[22] - CFB US Health State Index

<b>Statistical analysis title</b>	Health State Index US - 4 mg Baricitinib
Statistical analysis description: CFB US Health State Index	
Comparison groups	Placebo v 4 mg Baricitinib

Number of subjects included in analysis	122
Analysis specification	Pre-specified
Analysis type	superiority <sup>[23]</sup>
P-value	= 0.003
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	0.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.02
upper limit	0.11
Variability estimate	Standard error of the mean
Dispersion value	0.022

Notes:

[23] - CFB US Health State Index

<b>Statistical analysis title</b>	Health State Index UK - 1 mg Baricitinib
Statistical analysis description: CFB UK Health State Index	
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	117
Analysis specification	Pre-specified
Analysis type	superiority <sup>[24]</sup>
P-value	= 0.102
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	0.05
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.01
upper limit	0.11
Variability estimate	Standard error of the mean
Dispersion value	0.031

Notes:

[24] - CFB UK Health State Index

<b>Statistical analysis title</b>	Health State Index UK - 2 mg Baricitinib
Statistical analysis description: CFB UK Health State Index	
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	200
Analysis specification	Pre-specified
Analysis type	superiority <sup>[25]</sup>
P-value	= 0.014
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	0.07

Confidence interval	
level	95 %
sides	2-sided
lower limit	0.01
upper limit	0.12
Variability estimate	Standard error of the mean
Dispersion value	0.027

Notes:

[25] - CFB UK Health State Index

<b>Statistical analysis title</b>	Health State Index UK - 4 mg Baricitinib
Statistical analysis description: CFB UK Health State Index	
Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	122
Analysis specification	Pre-specified
Analysis type	superiority <sup>[26]</sup>
P-value	= 0.003
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	0.09
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.03
upper limit	0.15
Variability estimate	Standard error of the mean
Dispersion value	0.031

Notes:

[26] - CFB UK Health State Index

### **Secondary: Change From Baseline on the European Quality of Life-5 Dimensions 5 Levels (EQ-5D-5L) Visual Analog Score (VAS)**

End point title	Change From Baseline on the European Quality of Life-5 Dimensions 5 Levels (EQ-5D-5L) Visual Analog Score (VAS)
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End point description:

EQ-5D-5L is a 2-part measurement. The second part is assessed using a visual analog scale (VAS) that ranged from 0 to 100 millimeter (mm), where 0 is the worst health you can imagine and 100 is the best health you can imagine.

LS Means were calculated using MMRM model with treatment, region, baseline disease severity (IGA), visit, and treatment-by-visit-interactions as fixed categorical effects and baseline and baseline-by-visit-interaction as fixed continuous effects.

APD: All randomized participants with Week 16 EQ-5D-5L VAS data.

End point type	Secondary
End point timeframe:	
Baseline, Week 16	

<b>End point values</b>	Placebo	1 mg Baricitinib	2 mg Baricitinib	4 mg Baricitinib
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	55	62	145	67
Units: units on a scale				
least squares mean (standard error)	7.64 ( $\pm$ 2.407)	11.63 ( $\pm$ 2.306)	8.76 ( $\pm$ 1.588)	11.03 ( $\pm$ 2.260)

## Statistical analyses

<b>Statistical analysis title</b>	CFB EQ-5D-5L VAS - 1 mg Baricitinib
Comparison groups	Placebo v 1 mg Baricitinib
Number of subjects included in analysis	117
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.221
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	3.99
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.41
upper limit	10.39
Variability estimate	Standard error of the mean
Dispersion value	3.256

<b>Statistical analysis title</b>	CFB EQ-5D-5L VAS - 2 mg Baricitinib
Comparison groups	Placebo v 2 mg Baricitinib
Number of subjects included in analysis	200
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.689
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	1.12
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.4
upper limit	6.65
Variability estimate	Standard error of the mean
Dispersion value	2.807

<b>Statistical analysis title</b>	CFB EQ-5D-5L VAS - 4 mg Baricitinib
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Comparison groups	Placebo v 4 mg Baricitinib
Number of subjects included in analysis	122
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.294
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	3.39
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.95
upper limit	9.74
Variability estimate	Standard error of the mean
Dispersion value	3.226



## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

Up to Week 24

Adverse event reporting additional description:

Safety data includes data up to Week 24 data lock.

Assessment type	Systematic
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### Dictionary used

Dictionary name	MedDRA
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Dictionary version	22.1
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### Reporting groups

Reporting group title	Placebo
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Reporting group description: -

Reporting group title	1 mg Baricitinib
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Reporting group description: -

Reporting group title	2 mg Baricitinib
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Reporting group description: -

Reporting group title	4 mg Baricitinib
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Reporting group description: -

Serious adverse events	Placebo	1 mg Baricitinib	2 mg Baricitinib
Total subjects affected by serious adverse events			
subjects affected / exposed	2 / 93 (2.15%)	5 / 93 (5.38%)	4 / 184 (2.17%)
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)			
bowen's disease			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	1 / 93 (1.08%)	0 / 93 (0.00%)	0 / 184 (0.00%)
occurrences causally related to treatment / all	1 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Injury, poisoning and procedural complications			
ligament rupture			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 93 (0.00%)	0 / 93 (0.00%)	0 / 184 (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			

acute myocardial infarction alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 93 (0.00%)	0 / 93 (0.00%)	1 / 184 (0.54%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
coronary artery disease alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 93 (0.00%)	0 / 93 (0.00%)	1 / 184 (0.54%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
General disorders and administration site conditions			
soft tissue inflammation alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 93 (0.00%)	0 / 93 (0.00%)	0 / 184 (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
Eye disorders			
conjunctivitis allergic alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 93 (0.00%)	0 / 93 (0.00%)	0 / 184 (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
Respiratory, thoracic and mediastinal disorders			
asthma alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 93 (0.00%)	1 / 93 (1.08%)	0 / 184 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Skin and subcutaneous tissue disorders			
dermatitis atopic alternative dictionary used: MedDRA 22.1			

subjects affected / exposed	1 / 93 (1.08%)	1 / 93 (1.08%)	1 / 184 (0.54%)
occurrences causally related to treatment / all	1 / 1	0 / 1	1 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
dyshidrotic eczema alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 93 (0.00%)	0 / 93 (0.00%)	1 / 184 (0.54%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Musculoskeletal and connective tissue disorders			
bursitis alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 93 (0.00%)	2 / 93 (2.15%)	0 / 184 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 2	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
intervertebral disc degeneration alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 93 (0.00%)	1 / 93 (1.08%)	0 / 184 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
erysipelas alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	1 / 93 (1.08%)	0 / 93 (0.00%)	0 / 184 (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
furuncle alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 93 (0.00%)	0 / 93 (0.00%)	1 / 184 (0.54%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
postoperative wound infection alternative dictionary used: MedDRA 22.1			

subjects affected / exposed	0 / 93 (0.00%)	1 / 93 (1.08%)	0 / 184 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
pyelitis			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 93 (0.00%)	0 / 93 (0.00%)	0 / 184 (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
staphylococcal infection			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 93 (0.00%)	0 / 93 (0.00%)	0 / 184 (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>	4 mg Baricitinib		
Total subjects affected by serious adverse events			
subjects affected / exposed	6 / 92 (6.52%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
bowen's disease			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 92 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Injury, poisoning and procedural complications			
ligament rupture			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	1 / 92 (1.09%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Cardiac disorders			
acute myocardial infarction			
alternative dictionary used: MedDRA 22.1			

subjects affected / exposed	0 / 92 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
coronary artery disease			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 92 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
General disorders and administration site conditions			
soft tissue inflammation			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	1 / 92 (1.09%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Eye disorders			
conjunctivitis allergic			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	1 / 92 (1.09%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Respiratory, thoracic and mediastinal disorders			
asthma			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 92 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Skin and subcutaneous tissue disorders			
dermatitis atopic			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	2 / 92 (2.17%)		
occurrences causally related to treatment / all	1 / 2		
deaths causally related to treatment / all	0 / 0		
dyshidrotic eczema			

alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 92 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Musculoskeletal and connective tissue disorders			
bursitis			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 92 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
intervertebral disc degeneration			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 92 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
erysipelas			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 92 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
furuncle			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 92 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
postoperative wound infection			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	0 / 92 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
pyelitis			
alternative dictionary used: MedDRA 22.1			

subjects affected / exposed	1 / 92 (1.09%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
staphylococcal infection			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	1 / 92 (1.09%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	0 / 0		

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

<b>Non-serious adverse events</b>	Placebo	1 mg Baricitinib	2 mg Baricitinib
Total subjects affected by non-serious adverse events			
subjects affected / exposed	29 / 93 (31.18%)	32 / 93 (34.41%)	69 / 184 (37.50%)
Nervous system disorders			
headache			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	6 / 93 (6.45%)	8 / 93 (8.60%)	11 / 184 (5.98%)
occurrences (all)	8	14	14
Gastrointestinal disorders			
abdominal pain upper			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	2 / 93 (2.15%)	2 / 93 (2.15%)	5 / 184 (2.72%)
occurrences (all)	2	2	5
diarrhoea			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	3 / 93 (3.23%)	2 / 93 (2.15%)	6 / 184 (3.26%)
occurrences (all)	3	2	6
Respiratory, thoracic and mediastinal disorders			
oropharyngeal pain			
alternative dictionary used: MedDRA 22.1			
subjects affected / exposed	1 / 93 (1.08%)	7 / 93 (7.53%)	6 / 184 (3.26%)
occurrences (all)	1	8	6
Musculoskeletal and connective tissue disorders			

back pain alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)	5 / 93 (5.38%) 6	2 / 93 (2.15%) 3	4 / 184 (2.17%) 4
Infections and infestations folliculitis alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)  influenza alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)  nasopharyngitis alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)  oral herpes alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)	2 / 93 (2.15%) 2   2 / 93 (2.15%) 2   13 / 93 (13.98%) 18   4 / 93 (4.30%) 4	8 / 93 (8.60%) 9   3 / 93 (3.23%) 4   15 / 93 (16.13%) 20   4 / 93 (4.30%) 6	7 / 184 (3.80%) 7   10 / 184 (5.43%) 10   34 / 184 (18.48%) 43   5 / 184 (2.72%) 8

<b>Non-serious adverse events</b>	4 mg Baricitinib		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	50 / 92 (54.35%)		
Nervous system disorders headache alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)	9 / 92 (9.78%) 11		
Gastrointestinal disorders abdominal pain upper alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)  diarrhoea	5 / 92 (5.43%) 6		



alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)	5 / 92 (5.43%) 5		
Respiratory, thoracic and mediastinal disorders oropharyngeal pain alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)	2 / 92 (2.17%) 2		
Musculoskeletal and connective tissue disorders back pain alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)	5 / 92 (5.43%) 6		
Infections and infestations folliculitis alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)  influenza alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)  nasopharyngitis alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)  oral herpes alternative dictionary used: MedDRA 22.1 subjects affected / exposed occurrences (all)	0 / 92 (0.00%) 0  10 / 92 (10.87%) 10  27 / 92 (29.35%) 30  5 / 92 (5.43%) 7		

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
09 May 2019	Amendment (c) : Key secondary endpoints were changed.
19 September 2019	Amendment (d): Update the Primary Endpoint from IGA 0,1 to EASI 75.
06 December 2019	Amendment (e): Updated risk information as well as the addition of a new bridging extension post week 104 (V22) of up to 96 additional weeks (for a total of 200 weeks).

Notes:

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### Interruptions (globally)

Were there any global interruptions to the trial? No

### Limitations and caveats

None reported