Clinical trial results:
A Phase 3, Randomized, Double-Blind, Placebo-Controlled, Study of the Efficacy and Safety of Tofacitinib in Subjects With Active Ankylosing Spondylitis (AS)

Summary

EudraCT number	2018-000226-58
Trial protocol	FR HU CZ ES AT GB DE BG
Global end of trial date	20 August 2020

Results information

Result version number	v1 (current)
This version publication date	04 September 2021
First version publication date	04 September 2021

Trial information

Trial identification

Sponsor protocol code	A3921120

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03502616
WHO universal trial number (UTN)	-
Other trial identifiers	Alias ID: AS

Notes:

Sponsors

Sponsor organisation name	Pfizer Inc.
Sponsor organisation address	235 E 42nd Street, New York, United States, NY 10017
Public contact	Pfizer ClinicalTrials.gov Call Center, Pfizer Inc., 001 18007181021, ClinicalTrials.gov_Inquiries@pfizer.com
Scientific contact	Pfizer ClinicalTrials.gov Call Center, Pfizer Inc., 001 18007181021, ClinicalTrials.gov_Inquiries@pfizer.com

Notes:

Paediatric regulatory details

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

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	15 December 2020
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	20 August 2020
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To compare the efficacy of tofacitinib 5 milligrams (mg) twice daily (BID) versus placebo on the Ankylosing Spondylitis Disease Activity Score (ASAS)20 response rate at Week 16 in subjects with active ankylosing spondylitis (AS) that have had an inadequate response to previous treatment.

Protection of trial subjects:

The study was in compliance with the ethical principles derived from the Declaration of Helsinki and in compliance with all International Conference on Harmonisation (ICH) Good Clinical Practice (GCP) Guidelines. All the local regulatory requirements pertinent to safety of trial subjects were followed.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	07 June 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	Australia: 3
Country: Number of subjects enrolled	Bulgaria: 6
Country: Number of subjects enrolled	Canada: 10
Country: Number of subjects enrolled	China: 45
Country: Number of subjects enrolled	Czechia: 40
Country: Number of subjects enrolled	France: 1
Country: Number of subjects enrolled	Hungary: 5
Country: Number of subjects enrolled	Korea, Republic of: 8
Country: Number of subjects enrolled	Poland: 54
Country: Number of subjects enrolled	Russian Federation: 27
Country: Number of subjects enrolled	Turkey: 12
Country: Number of subjects enrolled	Ukraine: 41
Country: Number of subjects enrolled	United States: 17
Worldwide total number of subjects	269
EEA total number of subjects	106

Notes:

Subjects enrolled per age group	
In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	263
From 65 to 84 years	6
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

The study was conducted at 13 countries between 07 June 2018 and 20 August 2020. 270 subjects were enrolled in the study out of which 269 received treatment.

Pre-assignment

Screening details:

Safety data was planned to be collected and reported for both: Week 0 to Week 16 and from Week 0 to Week 48.

Period 1

Period 1 title	Up to Week 16
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	Tofacitinib

Arm description:

Subjects received Tofacitinib tablets 5 milligram (mg), twice daily for 48 weeks.

Arm type	Experimental
Investigational medicinal product name	Tofacitinib
Investigational medicinal product code	CP-690,550
Other name	
Pharmaceutical forms	Film-coated tablet
Routes of administration	Oral use

Dosage and administration details:

Tofacitinib tablets 5 milligram (mg), twice daily for 16 weeks.

Arm title	Placebo Then Tofacitinib

Arm description:

Subjects received tofacitinib matching placebo tablets, twice daily for 16 weeks followed by tofacitinib tablets 5 mg, twice daily for next 32 weeks (i.e. up to Week 48).

Arm type	Placebo
Investigational medicinal product name	Tofacitinib matching placebo tablets
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Coated tablet
Routes of administration	Oral use

Dosage and administration details:

Matching placebo tablets, twice daily for 16 weeks

Number of subjects in period 1	Tofacitinib	Placebo Then Tofacitinib
Started	133	136
Completed	132	133
Not completed	1	3
Consent withdrawn by subject	1	2
Lost to follow-up	-	1

Period 2

Period 2 title	Week 16 to Week 48
Is this the baseline period?	No
Allocation method	Not applicable
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	Tofacitinib

Arm description:

Subjects received Tofacitinib tablets 5 milligram (mg), twice daily for 48 weeks.

Arm type	Experimental
Investigational medicinal product name	Tofacitinib
Investigational medicinal product code	CP-690,550
Other name	
Pharmaceutical forms	Film-coated tablet
Routes of administration	Oral use

Dosage and administration details:

Tofacitinib tablets 5 mg, twice daily for 32 weeks.

Arm title	Placebo Then Tofacitinib

Arm description:

Subjects received tofacitinib matching placebo tablets, twice daily for 16 weeks followed by tofacitinib tablets 5 mg, twice daily for next 32 weeks (i.e. up to Week 48).

Arm type	Placebo
Investigational medicinal product name	Tofacitinib
Investigational medicinal product code	CP-690,550
Other name	
Pharmaceutical forms	Film-coated tablet
Routes of administration	Oral use

Dosage and administration details:

Tofacitinib tablets 5 mg, twice daily for 32 weeks

Number of subjects in period 2	Tofacitinib	Placebo Then Tofacitinib
Started	132	133
Treated	132	133
Completed	125	127
Not completed	7	6
Consent withdrawn by subject	6	6
Lost to follow-up	1	-

Baseline characteristics

Reporting groups	
Reporting group title	Tofacitinib
Reporting group description:	
Subjects received Tofacitinib tablets 5 milligram (mg), twice daily for 48 weeks.	
Reporting group title	Placebo Then Tofacitinib
Reporting group description:	
Subjects received tofacitinib matching placebo tablets, twice daily for 16 weeks followed by tofacitinib tablets 5 mg, twice daily for next 32 weeks (i.e. up to Week 48).	

Reporting group values	Tofacitinib	Placebo Then Tofacitinib	Total
Number of subjects	133	136	269
Age categorical Units: Subjects			
Adults (18-64 years)	127	136	263
From 65-84 years	6	0	6
Age Continuous Units: Years			
arithmetic mean	42.2	40.0	
standard deviation	± 11.85	± 11.06	-
Sex: Female, Male Units: Subjects			
Female	17	28	45
Male	116	108	224
Race/Ethnicity, Customized Units: Subjects			
White	107	106	213
Asian	25	30	55
Not reported	1	0	1

End points reporting groups

Reporting group title	Tofacitinib
Reporting group description:	
Subjects received Tofacitinib tablets 5 milligram (mg), twice daily for 48 weeks.	
Reporting group title	Placebo Then Tofacitinib
Reporting group description:	
Subjects received tofacitinib matching placebo tablets, twice daily for 16 weeks followed by tofacitinib tablets 5 mg, twice daily for next 32 weeks (i.e. up to Week 48).	
Reporting group title	Tofacitinib
Reporting group description:	
Subjects received Tofacitinib tablets 5 milligram (mg), twice daily for 48 weeks.	
Reporting group title	Placebo Then Tofacitinib
Reporting group description:	
Subjects received tofacitinib matching placebo tablets, twice daily for 16 weeks followed by tofacitinib tablets 5 mg, twice daily for next 32 weeks (i.e. up to Week 48).	
Subject analysis set title	Up to Week 48 Tofacitinib
Subject analysis set type	Full analysis
Subject analysis set description:	
Subjects received tofacitinib 5 mg tablets twice daily for 48 weeks.	
Subject analysis set title	Up to Week 48 Placebo Then Tofacitinib
Subject analysis set type	Full analysis
Subject analysis set description:	
Subjects received tofacitinib matching placebo tablets, twice daily for 16 weeks followed by tofacitinib tablets 5 mg, twice daily for next 32 weeks (i.e. up to Week 48).	
Subject analysis set title	Tofacitinib
Subject analysis set type	Full analysis
Subject analysis set description:	
Participants received Tofacitinib tablets 5 milligram (mg), twice daily for 48 weeks.	
Subject analysis set title	Placebo Then Tofacitinib
Subject analysis set type	Full analysis
Subject analysis set description:	
Participants received tofacitinib matching placebo tablets, twice daily for 16 weeks followed by tofacitinib tablets 5 mg, twice daily for next 32 weeks (i.e. up to Week 48).	

Primary: Percentage of Subjects Achieving Assessment of SpondyloArthritis International Society (ASAS)20 Response at Week 16

End point title	Percentage of Subjects Achieving Assessment of SpondyloArthritis International Society (ASAS)20 Response at Week 16
End point description:	
ASAS20 assess 4 domain:Patient Global Assessment of Disease (PGA) (scale:0[not active]-10[very active], high score=more disease activity), total back pain (scale:0[no pain]-10[most severe pain], high score=more severity), Function (Bath Ankylosing Spondylitis Functional Index [BASFI]; subject's level of ability: scale:0[easy]-10[impossible], low score=better functional health), Inflammation (morning stiffness, Mean of Question [Q]5, Q6 of Bath Ankylosing Spondylitis Disease Activity Index [BASDAI]:6-item questionnaire measure disease activity:scale:0[none]-10[severe], high score=more disease activity). ASAS20 response: >= 20% improvement from baseline in disease activity, absolute change of >=1 unit in >=3 domains, no worsening of >=20%, absolute change of >=1 unit in remaining domain. FAS:all subject randomised to study, received at least one dose of investigational product (tofacitinib or placebo). On-drug data used, missing response (MR) considered to be Non-response (NR) (MR=NR).	
End point type	Primary
End point timeframe:	
Week 16	

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	133	136		
Units: Percentage of subjects				
number (not applicable)	56.39	29.41		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via Cochran–Mantel–Haenszel (CMH) approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	27.08
Confidence interval	
level	95 %
sides	2-sided
lower limit	15.89
upper limit	38.28
Variability estimate	Standard error of the mean
Dispersion value	5.71

Secondary: Percentage of Subjects Achieving Ankylosing Spondylitis (ASAS)40 Response at Week 16

End point title	Percentage of Subjects Achieving Ankylosing Spondylitis (ASAS)40 Response at Week 16

End point description:

ASAS40 assessed 4 domains: the "PGA" (assess disease activity on a scale of 0 [not active] to 10 [very active], higher score=more disease activity), total back pain (on a scale of 0 [no pain] to 10 [most severe pain], higher score=more severity), Function (from BASFI: assess subject's level of ability on a scale of 0 [easy] to 10 [impossible], lower scores= better functional health) and Inflammation (morning stiffness, Mean of Q5 and Q6 of BASDAI defined as 6 item questionnaire: measures disease activity on a scale of 0 [none] to 10 [severe], higher score=more disease activity). ASAS40 response: >=40% and >=2 units improvement in >=3 domains and no worsening at all in the remaining domain. FAS: included all subjects who were randomised to the study and received at least one dose of the randomised investigational product (i.e., tofacitinib or placebo). Here, on-drug data was used and MR was considered to be NR (MR=NR).

End point type	Secondary

End point timeframe:

Week 16

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	133	136		
Units: Percentage of subjects				
number (not applicable)	40.60	12.50		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	28.17
Confidence interval	
level	95 %
sides	2-sided
lower limit	18.26
upper limit	38.09
Variability estimate	Standard error of the mean
Dispersion value	5.06

Secondary: Number of Subjects With Treatment Emergent Adverse Events (AEs)

End point title	Number of Subjects With Treatment Emergent Adverse Events (AEs)

End point description:

AE:any untoward medical occurrence in subject who received study drug without regard to possibility of causal relationship. Per National Cancer Institute - Common Terminology Criteria for AEs (NCI-CTCAE) version 4.03, severity:Grade 1:asymptomatic/mild symptom, clinical/diagnostic observation only, intervention not indicated; Grade 2:moderate, minimal, local/noninvasive intervention indicated, limiting age-appropriate instrumental activity of daily living (ADL); Grade 3:severe/medically significant but not immediately life-threatening, hospitalisation/prolongation of existing hospitalization indicated, disabling, limiting self-care ADL; Grade 4:life-threatening consequence, urgent intervention indicated; Grade 5:death. Treatment-emergent AEs: from first dose up to 48 week that were absent before treatment/worsened relative to pretreatment state. Safety analysis set: include all subject who were randomised, received at least one dose of investigational product (tofacitinib or placebo)

End point type	Secondary

End point timeframe:

Baseline up to Week 16 and Baseline up to Week 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	133	136		
Units: Subjects				
Up to Week 16	73	70		
Up to Week 48	103	93		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Treatment Emergent Adverse Events (AEs) by Severity

End point title	Number of Subjects With Treatment Emergent Adverse Events (AEs) by Severity

End point description:

AE: any untoward medical occurrence in subject who receive study drug without regard to possibility of causal relationship. Treatment-emergent AEs were events that occurred between first dose of study drug and up to 48 weeks that were absent before treatment or that worsened relative to pretreatment state. The severity grades (mild, moderate and severe) were defined as - mild: did not interfere with subject's usual function, moderate: Interfered to some extent with subject's usual function and severe: Interfered significantly with subject's usual function. Safety analysis set: included all subjects who were randomised and received at least one dose of the investigational product (i.e., tofacitinib or placebo).

End point type	Secondary

End point timeframe:

Baseline up to Week 16 and Baseline up to Week 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	133	136		
Units: Subjects				
Up to Week 16: Mild	53	52		
Up to Week 16: Moderate	18	18		
Up to Week 16: Severe	2	0		
Up to Week 48: Mild	57	57		
Up to Week 48: Moderate	40	36		
Up to Week 48: Severe	6	0		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Laboratory Abnormalities (Without Regard to Baseline Abnormality)

End point title	Number of Subjects With Laboratory Abnormalities (Without Regard to Baseline Abnormality)

End point description:

Hematology(Hemoglobin,Hematocrit,Erythrocyte[Ery],Lymphocyte/Leukocyte,Neutrophil/Leukocyte<0.8 *LLN,Reticulocyte>1.5*ULN, Ery Mean Corpuscular Volume,Ery. Mean Corpuscular Hemoglobin,Ery. Mean Corpuscular HGB Concentration<0.9*LLN,>1.1*ULN,Reticulocyte/Ery,Leukocyte>1.5*ULN,Lymphocyte,Neutrophil<0.8*LL N and >1.2*ULN,Basophil,Basophil/Leukocyte,Eosinophil,Eosinophil/Leukocyte,Monocyte,Monocyte/Leukocyte> 1.2*ULN); Clinical Chemistry(Bilirubin,Glucose>1.5*ULN,AST,ALT,Gamma Glutamyl Transferase>3.0*ULN,Urea,Creatinine, Triglyceride,Cholesterol>1.3*ULN,LDL Cholesterol>1.2*ULN,Potassium,C Reactive Protein>1.1*ULN,Bicarbonate<0.9*LLN,Creatine Kinase>2.0*ULN,HDL Cholesterol<0.8*LLN),Urinalysis(Specific Gravity>1.035,pH>8,Glucose,Ketones,Protein,Hemoglobin>=1,Ery,Leukocyte>=20,Granular

End point type	Secondary

End point timeframe:

Baseline up to Week 16 and Baseline up to Week 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Subjects				
Up to Week 16	106	129		
Up to Week 48	126	131		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Vital Signs Abnormalities

End point title	Number of Subjects With Vital Signs Abnormalities

End point description:

Criteria for abnormalities in vital signs: Pulse rate <40 beats per minute (bpm) to >120 bpm, Sitting Diastolic blood pressure (DBP) < 50 millimetre of mercury (mmHg), increase and decrease in change from baseline of >= 20mmHg, sitting systolic blood pressure (SBP) < 90 mmHg, increase and decrease in change from baseline of >= 30mmHg. Safety analysis set: included all subjects who were randomised and received at least one dose of the investigational product (i.e., tofacitinib or placebo). Here "number of subjects analysed" signifies subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline up to Week 16 and Baseline up to Week 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Subjects				
Up to Week 16, Pulse rate: <40 bpm	0	0		
Up to Week 16, Pulse rate: >120 bpm	0	0		
Up to Week 16, Sitting DBP: <50 mmHg	0	0		
Up to Week 16,Sitting DBP:Change>=20mmHg increase	2	4		
Up to Week 16,Sitting DBP:Change>=20mmHg decrease	6	4		
Up to Week 16, Sitting SBP <90mmHg	1	0		
Up to Week 16,Sitting SBP:Change>=30mmHg increase	2	4		
Up to Week 16,Sitting SBP:Change>=30mmHg decrease	2	5		
Up to Week 48, Pulse rate: <40 bpm	0	0		
Up to Week 48, Pulse rate: >120 bpm	0	1		
Up to Week 48, Sitting DBP: <50 mmHg	0	0		
Up to Week 48,Sitting DBP:Change>=20mmHg increase	5	8		
Up to Week 48,Sitting DBP:Change>=20mmHg decrease	11	8		
Up to Week 48, Sitting SBP: <90mmHg	1	0		
Up to Week 48,Sitting SBP:Change>=30mmHg increase	5	5		
Up to Week 48,Sitting SBP:Change>=30mmHg decrease	5	7		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects with Abnormalities in Physical Examination

End point title	Number of Subjects with Abnormalities in Physical Examination

End point description:

Complete physical examination: included general appearance, skin (presence of rash), heent (head, eyes, ears, nose and throat), lungs (auscultation), heart (auscultation for presence of murmurs, gallops, rubs), lower extremities (presence of peripheral edema), abdominal (palpation and auscultation), neurologic (mental status, station, gait, reflexes, motor and sensory function, coordination) and lymph nodes. Abnormalities in physical examination was based on investigator's discretion/clinical judgement. Safety analysis set: included all subjects who were randomised and received at least one dose of the investigational product (i.e., tofacitinib or placebo). Here, 'n'= subjects analysed for this end point for specified rows.

End point type	Secondary

End point timeframe:

Screening, Week 16, and Week 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	133	136		
Units: Subjects				
Abdomen: Screening (n=133, 135)	2	1		
Abdomen: Week 16 (n=132, 132)	1	2		
Abdomen: Week 48 (n=119, 119)	1	1		
Extremities: Screening (n=133, 136)	17	15		
Extremities: Week 16 (n=132, 132)	8	14		
Extremities: Week 48 (n=119, 119)	4	7		
General appearance: Screening (n=133, 135)	10	11		
General appearance: Week 16 (n=132, 132)	9	9		
General appearance: Week 48 (n=119,119)	7	6		
Heent: Screening (n=133,135)	5	7		
Heent: Week 16 (n=132, 132)	4	7		
Heent: Week 48 (n=119, 119)	3	7		
Heart: Screening (n=133,136)	2	2		
Heart: Week 16 (n=132, 132)	0	2		
Heart: Week 48 (n=119, 119)	0	2		
Lungs: Screening (n=133,136)	1	0		
Lungs: Week 16 (n=132, 132)	0	0		
Lungs: Week 48 (n=119, 119)	0	0		
Lymph nodes: Screening (n=133, 136)	2	3		
Lymph nodes: Week 16 (n=132, 131)	1	2		
Lymph nodes: Week 48 (n=119, 119)	1	2		
Neurological: Screening (n=133, 135)	4	0		
Neurological: Week 16 (n=132, 131)	1	0		
Neurological: Week 48 (n=119, 119)	2	0		
Skin: Screening (n=133, 135)	18	18		
Skin: Week 16 (n=132, 132)	14	13		
Skin: Week 48 (n=119, 119)	12	12		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Electrocardiogram (ECG) Abnormalities

End point title	Number of Subjects With Electrocardiogram (ECG) Abnormalities

End point description:

Twelve-lead electrocardiograms (ECGs) were obtained for all subjects. Criteria for ECG abnormality: PR interval >=300 and a percent change from baseline of >=25 or 50%; QRS duration >=140 and a percent change from baseline of >=50%; QT interval >=500; QTCB, QTCF interval <480 or >=450, <500 or >=480, >=500, change from baseline of <60 and >=30, and change from baseline of >=60. Safety analysis set: included all subjects who were randomised and received at least one dose of the investigational product (i.e., tofacitinib or placebo). Here "number of subjects analysed" signifies subjects analysed for this end point and 'n' = subjects analysed for this end point for specified rows.

End point type	Secondary

End point timeframe:
Baseline (BL) to Week 16 (W16), Baseline to Week 48 (W48)

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	131	133		
Units: Subjects				
BL to W16, PR interval: >=300, n=131,131	0	0		
BL to W16, PR interval:%Change>=25/50%,	0	1		
BL to W16, QRS duration: >=140, n=131,131	1	1		
BL to W16, QRS duration:%Change>=50%, n=131,131	0	0		
BL to W16, QT interval: >=500, n=131,131	0	0		
BL to W16, QTCB interval:>=450 and <480, n=131,131	3	7		
BL to W16, QTCB interval:>=480 and <500, n=131,131	0	1		
BL to W16, QTCB interval: >=500, n=131,131	0	0		
BL to W16, QTCB interval:change >=30,<60,n=131,131	9	7		
BL to W16, QTCB interval: change >=60, n=131,131	0	0		
BL to W16, QTCF interval:>=450 and <480,n=131,131	3	4		
BL to W16, QTCF interval:>=480 and <500,n=131,131	0	0		
BL to W16, QTCF interval: >=500, n=131,131	0	0		
BL to W16, QTCF interval:change >=30,<60,n=131,131	5	3		
BL to W16, QTCF interval: change >=60,n=131,131	0	0		
BL to W48, PR interval: >=300, n=131,133	0	0		
BL to W48, PR interval:%Change>=25/50%,	0	1		
BL to W48, QRS duration: >=140, n=131,133	3	1		
BL to W48, QRS duration: %Change>=50%, n=131,133	0	0		
BL to W48, QT interval: >=500, n=131,133	0	1		
BL to W48, QTCB interval:>=450, <480,n=131,133	10	10		
BL to W48, QTCB interval:>=480,<500,n=131,133	1	1		
BL to W48, QTCB interval: >=500, n=131,133	0	0		
BL to W48, QTCB interval:change >=30,<60,n=131,133	14	11		

BL to W48, QTCB interval: change >=60,n=131,133	1	0		
BL to W48, QTCF interval:>=450,<480,n=131,133	5	5		
BL to W48, QTCF interval:>=480,<500,n=131,133	1	0		
BL to W48, QTCF interval: >=500, n=131,133	0	0		
BL to W48, QTCF interval:change >=30,<60,n=131,133	9	7		
BL to W48, QTCF interval: change >=60, n=131,133	1	0		

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Subjects Achieving ASAS20 Response at Weeks 2, 4, 8, 12, 24, 32, 40 and 48

End point title	Percentage of Subjects Achieving ASAS20 Response at Weeks 2, 4, 8, 12, 24, 32, 40 and 48

End point description:

ASAS20 assess 4 domains:PGA (assess disease activity on a scale of 0[not active] to 10[very active], high score=more disease activity), total back pain (scale of 0[no pain] to 10[most severe pain], high score=more severity), Function (BASFI; subject's level of ability on scale of 0[easy] to 10[impossible], low score= better functional health), Inflammation (morning stiffness, Mean of Q5 and Q6 of BASDAI defined as 6-item questionnaire measure disease activity on a scale of 0[none] to 10[severe], high score=more disease activity). ASAS20 response: >=20% improvement from baseline in disease activity, absolute change of >=1 unit in >=3 domains, no worsening of >=20%, an absolute change of >=1 unit in remaining domain. FAS: included all subject who were randomised to study, received at least one dose of randomised investigational product. Here, on-drug data was used, MR=NR.

End point type	Secondary

End point timeframe:

Weeks 2, 4, 8, 12, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	133	136		
Units: Percentage of subjects				
number (not applicable)				
Week 2	28.57	10.29		
Week 4	51.13	19.85		
Week 8	57.14	25.00		
Week 12	63.91	29.41		
Week 24	63.16	59.56		
Week 32	68.42	64.71		
Week 40	68.42	66.91		
Week 48	65.41	60.29		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 2: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	18.28
Confidence interval	
level	95 %
sides	2-sided
lower limit	9.06
upper limit	27.5
Variability estimate	Standard error of the mean
Dispersion value	4.7

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 4: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	31.35
Confidence interval	
level	95 %
sides	2-sided
lower limit	20.64
upper limit	42.06
Variability estimate	Standard error of the mean
Dispersion value	5.47

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	32.24
Confidence interval	
level	95 %
sides	2-sided
lower limit	21.32
upper limit	43.17
Variability estimate	Standard error of the mean
Dispersion value	5.57

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	34.61
Confidence interval	
level	95 %
sides	2-sided
lower limit	23.63
upper limit	45.58
Variability estimate	Standard error of the mean
Dispersion value	5.6

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.7792
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	1.58
Confidence interval	
level	95 %
sides	2-sided
lower limit	-9.49
upper limit	12.66
Variability estimate	Standard error of the mean
Dispersion value	5.65

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.3685
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	5.22
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.15
upper limit	16.58
Variability estimate	Standard error of the mean
Dispersion value	5.8

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.536
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	3.65
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.92
upper limit	15.22
Variability estimate	Standard error of the mean
Dispersion value	5.9

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4971
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	3.83
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.22
upper limit	14.87
Variability estimate	Standard error of the mean
Dispersion value	5.63

Secondary: Percentage of Subjects Achieving ASAS40 Response at Weeks 2, 4, 8, 12, 24, 32, 40 and 48

End point title	Percentage of Subjects Achieving ASAS40 Response at Weeks 2, 4, 8, 12, 24, 32, 40 and 48

End point description:

ASAS40 assessed 4 domains: “PGA” (assess disease activity on a scale of 0 [not active] to 10 [very active], high score=more disease activity), total back pain (on a scale of 0 [no pain] to 10 [most severe pain], high score=more severity), Function (from BASFI: assess subject’s level of ability on a scale of 0 [easy] to 10 [impossible], low score= better functional health), Inflammation (morning stiffness, Mean of Q5 and Q6 of BASDAI defined as 6 item questionnaire: measure disease activity on a scale of 0 [none] to 10 [severe], high score=more disease activity). ASAS40 response: >=40% and >=2 units improvement in >=3 domains, no worsening at all in the remaining domain. FAS: include all subjects who were randomised to the study, received at least one dose of randomised investigational product (i.e., tofacitinib or placebo). On-drug data was used, MR=NR.

End point type	Secondary

End point timeframe:

Weeks 2, 4, 8, 12, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	133	136		
Units: Percentage of subjects				
number (not applicable)				
Week 2	10.53	4.41		
Week 4	27.07	3.68		
Week 8	34.59	5.88		
Week 12	42.86	11.76		
Week 24	48.12	41.91		
Week 32	50.38	44.12		
Week 40	50.38	42.65		
Week 48	50.38	44.85		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0548
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	6.12
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.13
upper limit	12.37
Variability estimate	Standard error of the mean
Dispersion value	3.19

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	23.43
Confidence interval	
level	95 %
sides	2-sided
lower limit	15.3
upper limit	31.56
Variability estimate	Standard error of the mean
Dispersion value	4.15

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 8: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	28.56
Confidence interval	
level	95 %
sides	2-sided
lower limit	19.66
upper limit	37.47
Variability estimate	Standard error of the mean
Dispersion value	4.54

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 12: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	31.18
Confidence interval	
level	95 %
sides	2-sided
lower limit	21.34
upper limit	41.02
Variability estimate	Standard error of the mean
Dispersion value	5.02

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2926
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	6.29
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.43
upper limit	18.01
Variability estimate	Standard error of the mean
Dispersion value	5.98

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2856
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	6.37

Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.32
upper limit	18.06
Variability estimate	Standard error of the mean
Dispersion value	5.97

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 40: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1894
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	7.83
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.87
upper limit	19.54
Variability estimate	Standard error of the mean
Dispersion value	5.97

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 48: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.3544
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	5.59
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.24
upper limit	17.43
Variability estimate	Standard error of the mean
Dispersion value	6.04

Secondary: Change From Baseline in Ankylosing Spondylitis Disease Activity Score using C-Reactive Protein (ASDAS[CRP]) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in Ankylosing Spondylitis Disease Activity Score using C-Reactive Protein (ASDAS[CRP]) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

ASDAS(CRP) derived using BASDAI (6-item questionnaire measure disease activity:scale 0[none] to 10[severe],high score=more disease activity),PGA:measure disease activity:scale 0 [not active] to 10 [very active],high score=more disease activity),calculated by using formula,0.121xBack Pain(Q2 of BASDAI)+0.058xDuration of Morning Stiffness(Q6 of BASDAI)+0.110xPGA+0.073xPeripheral Pain/Swelling(Q3 of BASDAI)+0.579xLn (high sensitivity [hs] CRP mg/Liter[L]+1).If hsCRP values smaller than 2mg/L,they were set to 2mg/L in formula.Range of score >=0.636 to no defined upper limit.Negative change from baseline value=decrease in disease activity;positive change from baseline value=increase in disease activity.FAS:all subject randomised to study,received >=1 of investigational product.On-drug data used,missing response not imputed."number of subject analysed"=subject analysed for end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Units on a scale				
least squares mean (standard error)				
Week 2	-0.88 (± 0.056)	-0.17 (± 0.056)		
Week 4	-1.14 (± 0.065)	-0.24 (± 0.065)		
Week 8	-1.30 (± 0.074)	-0.24 (± 0.074)		
Week 12	-1.38 (± 0.075)	-0.28 (± 0.075)		
Week 16	-1.36 (± 0.073)	-0.39 (± 0.073)		
Week 24	-1.51 (± 0.082)	-1.32 (± 0.081)		
Week 32	-1.56 (± 0.084)	-1.37 (± 0.084)		
Week 40	-1.65 (± 0.086)	-1.40 (± 0.086)		
Week 48	-1.70 (± 0.087)	-1.50 (± 0.086)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using Mixed model for repeated measures (MMRM) which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.71
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.85
upper limit	-0.57
Variability estimate	Standard error of the mean
Dispersion value	0.072

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.07
upper limit	-0.74
Variability estimate	Standard error of the mean
Dispersion value	0.083

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.25
upper limit	-0.87
Variability estimate	Standard error of the mean
Dispersion value	0.095

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.09
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.28
upper limit	-0.9
Variability estimate	Standard error of the mean
Dispersion value	0.096

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.98
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.16
upper limit	-0.79
Variability estimate	Standard error of the mean
Dispersion value	0.093

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using Mixed model for repeated measures (MMRM) which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0623
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.19
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.4
upper limit	0.01
Variability estimate	Standard error of the mean
Dispersion value	0.103

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using Mixed model for repeated measures (MMRM) which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0836
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.18
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.39
upper limit	0.02
Variability estimate	Standard error of the mean
Dispersion value	0.106

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using Mixed model for repeated measures (MMRM) which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0205
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.25
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.47
upper limit	-0.04
Variability estimate	Standard error of the mean
Dispersion value	0.108

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using Mixed model for repeated measures (MMRM) which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0614
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.42
upper limit	0.01
Variability estimate	Standard error of the mean
Dispersion value	0.108

Secondary: Change From Baseline in High Sensitivity C-Reactive Protein (hsCRP) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in High Sensitivity C-Reactive Protein (hsCRP) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

Blood samples were collected for analysis of hsCRP using an assay analyzed by central laboratory. hsCRP is an acute phase reactant, which was indicative of inflammation and of its severity. FAS: included all subjects who were randomised to the study and received at least one dose of the randomised investigational product (i.e., tofacitinib or placebo). Here, on-drug data was used and missing response was not imputed. Here "number of subjects analysed" signifies subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Milligrams per decilitre (mg/dL)				
least squares mean (standard error)				
Week 2	-1.07 (± 0.089)	-0.14 (± 0.088)		
Week 4	-1.06 (± 0.094)	-0.14 (± 0.094)		
Week 8	-1.05 (± 0.153)	-0.03 (± 0.152)		
Week 12	-1.11 (± 0.089)	-0.15 (± 0.090)		
Week 16	-1.05 (± 0.096)	-0.09 (± 0.096)		
Week 24	-1.21 (± 0.058)	-1.16 (± 0.058)		
Week 32	-1.16 (± 0.076)	-1.08 (± 0.075)		

Week 40	-1.22 (± 0.089)	-1.09 (± 0.089)		
Week 48	-1.17 (± 0.081)	-1.11 (± 0.080)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.93
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.15
upper limit	-0.7
Variability estimate	Standard error of the mean
Dispersion value	0.113

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.92
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.16
upper limit	-0.68
Variability estimate	Standard error of the mean
Dispersion value	0.121

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.02
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.4
upper limit	-0.63
Variability estimate	Standard error of the mean
Dispersion value	0.196

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.96
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.19
upper limit	-0.74
Variability estimate	Standard error of the mean
Dispersion value	0.115

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.96
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.2
upper limit	-0.72
Variability estimate	Standard error of the mean
Dispersion value	0.122

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4731
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.05
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.2
upper limit	0.09
Variability estimate	Standard error of the mean
Dispersion value	0.073

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4055
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.08
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.26
upper limit	0.11
Variability estimate	Standard error of the mean
Dispersion value	0.094

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2648
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.12
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.34
upper limit	0.09
Variability estimate	Standard error of the mean
Dispersion value	0.111

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.5558
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.25
upper limit	0.14
Variability estimate	Standard error of the mean
Dispersion value	0.099

Secondary: Change From Baseline in Ankylosing Spondylitis Quality of Life (ASQoL) Score at Weeks 16 and 48

End point title	Change From Baseline in Ankylosing Spondylitis Quality of Life (ASQoL) Score at Weeks 16 and 48

End point description:

The ASQoL was an 18-item questionnaire assessed the amount of restriction subject experienced in daily activities, level of pain and fatigue, and the impact on the subject's emotional state. Each item was scored as 0 (no impact) or 1 (yes - impact). A total score was calculated by summing the items. The total score ranged from 0 (no impact) to 18 (yes-impact), with higher values indicated more impaired health-related quality of life. FAS: included all subjects who were randomised to the study and received at least one dose of the randomised investigational product (i.e., tofacitinib or placebo). Here, on-drug data was used and missing response was not imputed. Here "number of subjects analysed" signifies subjects analysed for this end point and 'n'= subjects analysed for this end point for specified time points.

End point type	Secondary

End point timeframe:

Baseline, Weeks 16 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	129	131		
Units: Units on scale				
least squares mean (standard error)				
Week 16 (n=129,130)	-4.03 (± 0.404)	-2.01 (± 0.405)		
Week 48 (n=129, 131)	-5.97 (± 0.454)	-4.70 (± 0.451)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using Analysis of covariance (ANCOVA) model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0001
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	-2.02
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.03
upper limit	-1.01
Variability estimate	Standard error of the mean
Dispersion value	0.513

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.027
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.26
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.38
upper limit	-0.14
Variability estimate	Standard error of the mean
Dispersion value	0.567

Secondary: Change From Baseline in Short-Form-36 Health Survey-Version 2 Acute (SF-36v2) Score at Weeks 16 and 48

End point title	Change From Baseline in Short-Form-36 Health Survey-Version 2 Acute (SF-36v2) Score at Weeks 16 and 48

End point description:

36-item health status measure,8 domain:physical functioning,role limitation-physical health,bodily pain,general health perception,vitality,social functioning,role limitation-emotional problem,mental

Domain aggregate into 2 score-physical component summary(PCS),mental component summary(MCS).4 domain comprise PCS:physical functioning,role-physical,bodily pain,general health,remaining 4 domain comprise MCS:vitality,social functioning,role-emotional,mental health.Normalized domain,PCS,MCS score used in analyses.Component,domain score by using US 1998 general population norm.Resulting norm-based score for SF36 version 2,SF36 health domain scale,component summary measure had mean 50 and standard deviations 10.High PCS/MCS/domain score=better health status.FAS:include all subject who were randomised to study,received >=1 dose of investigational product (tofacitinib or placebo).On-drug data used,MR not imputed.Number of subject analysed signify subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 16 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	129	130		
Units: Units on a scale				
least squares mean (standard error)				
Week 16: Physical Functioning	5.52 (± 0.665)	3.29 (± 0.665)		
Week 16: Role-Physical	6.13 (± 0.744)	3.13 (± 0.745)		
Week 16: Bodily Pain	7.93 (± 0.710)	3.47 (± 0.713)		
Week 16: General Health	5.00 (± 0.617)	1.76 (± 0.618)		
Week 16: Vitality	5.34 (± 0.864)	3.56 (± 0.869)		
Week 16: Social Functioning	5.45 (± 0.835)	2.49 (± 0.837)		
Week 16: Role-Emotional	4.13 (± 1.020)	2.05 (± 1.017)		
Week 16: Mental Health	3.57 (± 0.886)	2.49 (± 0.888)		
Week 16: Physical Component Summary	6.69 (± 0.588)	3.14 (± 0.590)		
Week 16: Mental Component Summary	3.45 (± 0.914)	2.13 (± 0.915)		
Week 48: Physical Functioning	7.80 (± 0.775)	6.94 (± 0.766)		
Week 48: Role-Physical	8.66 (± 0.870)	7.29 (± 0.862)		
Week 48: Bodily Pain	11.67 (± 0.920)	9.55 (± 0.912)		
Week 48: General Health	6.31 (± 0.777)	5.10 (± 0.770)		
Week 48: Vitality	9.83 (± 0.997)	9.28 (± 0.992)		
Week 48: Social Functioning	8.16 (± 0.923)	6.77 (± 0.915)		
Week 48: Role-Emotional	7.17 (± 1.004)	6.32 (± 0.989)		
Week 48: Mental Health	7.10 (± 0.960)	6.45 (± 0.954)		
Week 48: Physical Component Summary	8.81 (± 0.720)	7.39 (± 0.714)		
Week 48: Mental Component Summary	7.07 (± 0.926)	6.35 (± 0.920)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16, Physical Functioning: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0088
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	2.22
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.56
upper limit	3.88
Variability estimate	Standard error of the mean
Dispersion value	0.841

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16, Role-Physical: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0016
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	3
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.15
upper limit	4.85
Variability estimate	Standard error of the mean
Dispersion value	0.939

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16, Bodily Pain: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	4.46

Confidence interval	
level	95 %
sides	2-sided
lower limit	2.69
upper limit	6.23
Variability estimate	Standard error of the mean
Dispersion value	0.9

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16, General Health: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	3.24
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.7
upper limit	4.78
Variability estimate	Standard error of the mean
Dispersion value	0.781

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16, Vitality: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1065
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	1.78
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.38
upper limit	3.94
Variability estimate	Standard error of the mean
Dispersion value	1.098

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16, Social Functioning: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0055
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	2.96
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.88
upper limit	5.05
Variability estimate	Standard error of the mean
Dispersion value	1.059

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16, Role-Emotional: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1084
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	2.08
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.46
upper limit	4.61
Variability estimate	Standard error of the mean
Dispersion value	1.289

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16, Mental Health: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.3379
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	1.08
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.13
upper limit	3.29
Variability estimate	Standard error of the mean
Dispersion value	1.124

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 16, Physical Component Summary: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	3.55
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.09
upper limit	5.02
Variability estimate	Standard error of the mean
Dispersion value	0.744

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 16, Mental Component Summary: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2529
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	1.33
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.95
upper limit	3.61
Variability estimate	Standard error of the mean
Dispersion value	1.158

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Physical Functioning: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.3744
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.86
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.04
upper limit	2.76
Variability estimate	Standard error of the mean
Dispersion value	0.964

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Role-Physical: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2091
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.36
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.77
upper limit	3.5
Variability estimate	Standard error of the mean
Dispersion value	1.083

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Bodily Pain: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0654
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	2.12
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.14
upper limit	4.38
Variability estimate	Standard error of the mean
Dispersion value	1.146

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, General Health: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.21
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.22
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.69
upper limit	3.12
Variability estimate	Standard error of the mean
Dispersion value	0.968

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Vitality: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.6568
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.56
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.9
upper limit	3.01
Variability estimate	Standard error of the mean
Dispersion value	1.248

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Social Functioning: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2288
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.39
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.88
upper limit	3.66
Variability estimate	Standard error of the mean
Dispersion value	1.152

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Role-Emotional: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4955
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.85
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.61
upper limit	3.32
Variability estimate	Standard error of the mean
Dispersion value	1.25

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Mental Health: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.5888
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.65
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.71
upper limit	3.01
Variability estimate	Standard error of the mean
Dispersion value	1.2

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Physical Component Summary: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.115
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.42
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.35
upper limit	3.18
Variability estimate	Standard error of the mean
Dispersion value	0.896

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Mental Component Summary: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.5347
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.72
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.56
upper limit	3
Variability estimate	Standard error of the mean
Dispersion value	1.158

Secondary: Change From Baseline in Bath Ankylosing Spondylitis Metrology Index (BASMI) Scores: Cervical Rotation Angle at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in Bath Ankylosing Spondylitis Metrology Index (BASMI) Scores: Cervical Rotation Angle at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

BASMI assess axial status,spinal mobility.Compose of 5 clinical measure:lateral spinal flexion,tragus-to-wall distance,lumbar flexion,maximal intermalleolar distance,cervical rotation.BASMI-Linear Method score average of 5 score map:0-10,high score=more impairment.Cervical rotation angle:subject sit straight on chair with chin level,hand on knee.Blind assessor place goniometer at top of head in line with nose,ask subject to rotate neck maximal to left,follow with goniometer,record angle between sagittal plane,new plane after rotation.2nd reading obtain,both reading record.Procedure repeat for right.Better of 2 select for scoring;done by calculate mean of left,right measurement,record in degree(0-90),high cervical rotation=better health.FAS:include subject randomise to study,receive >=1 dose.On-drug data use,MR not impute.Number of subjects analysed=subjects analysed for end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Degrees				
least squares mean (standard error)				
Week 2	2.25 (± 0.701)	0.95 (± 0.698)		
Week 4	3.63 (± 0.797)	2.07 (± 0.792)		
Week 8	6.26 (± 0.825)	2.44 (± 0.824)		
Week 12	6.24 (± 1.002)	2.92 (± 1.004)		
Week 16	7.74 (± 1.009)	3.00 (± 1.008)		
Week 24	7.68 (± 1.139)	7.49 (± 1.131)		
Week 32	7.25 (± 1.087)	8.23 (± 1.080)		
Week 40	7.62 (± 1.215)	8.34 (± 1.207)		
Week 48	7.63 (± 1.201)	8.23 (± 1.188)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1513
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.29
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.48
upper limit	3.06
Variability estimate	Standard error of the mean
Dispersion value	0.898

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1279
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.56
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.45
upper limit	3.56
Variability estimate	Standard error of the mean
Dispersion value	1.02

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0003
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	3.83
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.75
upper limit	5.9
Variability estimate	Standard error of the mean
Dispersion value	1.056

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0102
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	3.32
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.79
upper limit	5.84
Variability estimate	Standard error of the mean
Dispersion value	1.282

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0003
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	4.73
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.2
upper limit	7.26
Variability estimate	Standard error of the mean
Dispersion value	1.285

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.895
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.19
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.64
upper limit	3.02
Variability estimate	Standard error of the mean
Dispersion value	1.439

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4732
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.98
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.67
upper limit	1.71
Variability estimate	Standard error of the mean
Dispersion value	1.365

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.6359
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.72
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.72
upper limit	2.28
Variability estimate	Standard error of the mean
Dispersion value	1.523

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.6894
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.54
upper limit	2.35
Variability estimate	Standard error of the mean
Dispersion value	1.495

Secondary: Change From Baseline in Bath Ankylosing Spondylitis Metrology Index (BASMI) Scores: Intermalleolar Distance at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in Bath Ankylosing Spondylitis Metrology Index (BASMI) Scores: Intermalleolar Distance at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

BASMI assess axial status, spinal mobility using linear function. It compose of 5 clinical measures:lateral spinal flexion, tragus-to-wall distance, lumbar flexion, maximal intermalleolar distance, cervical rotation. BASMI - Linear Method score average of 5 individual component scores mapped between 0-10, high score=more impairment. For assessment of intermalleolar distance, subjects lie supine with knees straight and feet/toes pointing straight up, asked to separate legs as far as possible, distance between medial malleoli measured (in Centimetres [cm] to nearest 0.1cm). Distance was>=0, with no maximum defined range: high intermalleolar distance value=better health status. FAS: include all subjects randomised to study, received at least one dose of investigational product. On-drug data used, MR not imputed. Number of subjects analysed=subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Centimetres				
least squares mean (standard error)				
Week 2	2.29 (± 0.733)	0.90 (± 0.730)		
Week 4	3.62 (± 0.861)	0.84 (± 0.856)		
Week 8	4.68 (± 0.979)	1.36 (± 0.976)		
Week 12	5.33 (± 1.106)	1.97 (± 1.108)		
Week 16	6.84 (± 1.084)	2.64 (± 1.082)		
Week 24	7.79 (± 1.177)	4.39 (± 1.174)		
Week 32	8.98 (± 1.221)	5.32 (± 1.215)		
Week 40	8.60 (± 1.229)	4.75 (± 1.222)		
Week 48	7.83 (± 1.233)	4.34 (± 1.222)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.141
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.39
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.46
upper limit	3.24
Variability estimate	Standard error of the mean
Dispersion value	0.94

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0122
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	2.78
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.61
upper limit	4.95
Variability estimate	Standard error of the mean
Dispersion value	1.102

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0085
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	3.32
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.86
upper limit	5.79
Variability estimate	Standard error of the mean
Dispersion value	1.252

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0184
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	3.36
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.57
upper limit	6.15
Variability estimate	Standard error of the mean
Dispersion value	1.416

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0026
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	4.19
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.47
upper limit	6.91
Variability estimate	Standard error of the mean
Dispersion value	1.38

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0236
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	3.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.46
upper limit	6.35
Variability estimate	Standard error of the mean
Dispersion value	1.495

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0182
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	3.66
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.63
upper limit	6.7
Variability estimate	Standard error of the mean
Dispersion value	1.541

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0133
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	3.85
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.81
upper limit	6.9
Variability estimate	Standard error of the mean
Dispersion value	1.545

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0245
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	3.49
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.45
upper limit	6.52
Variability estimate	Standard error of the mean
Dispersion value	1.541

Secondary: Change From Baseline in Bath Ankylosing Spondylitis Metrology Index (BASMI) Scores: Lateral Spinal Flexion at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in Bath Ankylosing Spondylitis Metrology Index (BASMI) Scores: Lateral Spinal Flexion at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

BASMI assess axial status,spinal mobility use linear function.Compose of 5 clinical measure.BASMI-Linear Method score:average of 5 component score map between 0-10,high score=more impairment.Assessment of lateral spinal flexion:subjects stand upright with head,back rest against wall as close as possible with shoulder level,feet 30cm apart,feet parallel.At tip of middle finger,place mark on thigh.This position record.Subjects bend sideway without bend knee/lifting heel while attempt to keep shoulder in same position.2nd mark placed,lateral flexion record.2 try left,2 try right measure.Result of 2 try recorded for left,right separately to nearest 0.1cm.Distance should be>=0,no maximum defined range:high value=better health status.FAS:include subject randomise to study,receive>=1dose of study drug.On-drug data use,MR not impute.Number of subject

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Centimetres				
least squares mean (standard error)				
Week 2	0.60 (± 0.200)	-0.21 (± 0.199)		
Week 4	0.96 (± 0.235)	-0.10 (± 0.233)		
Week 8	1.34 (± 0.238)	0.15 (± 0.237)		
Week 12	1.42 (± 0.214)	-0.21 (± 0.214)		
Week 16	1.79 (± 0.269)	-0.08 (± 0.269)		
Week 24	1.70 (± 0.278)	0.75 (± 0.276)		
Week 32	1.90 (± 0.319)	1.31 (± 0.316)		

Week 40	2.15 (± 0.332)	1.37 (± 0.329)		
Week 48	1.64 (± 0.345)	1.34 (± 0.340)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0018
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.81
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.3
upper limit	1.32
Variability estimate	Standard error of the mean
Dispersion value	0.257

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0005
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.47
upper limit	1.65
Variability estimate	Standard error of the mean
Dispersion value	0.301

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.19
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.59
upper limit	1.79
Variability estimate	Standard error of the mean
Dispersion value	0.305

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.63
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.09
upper limit	2.17
Variability estimate	Standard error of the mean
Dispersion value	0.274

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.87
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.2
upper limit	2.55
Variability estimate	Standard error of the mean
Dispersion value	0.344

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0075
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.95
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.26
upper limit	1.65
Variability estimate	Standard error of the mean
Dispersion value	0.353

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1489
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.58
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.21
upper limit	1.38
Variability estimate	Standard error of the mean
Dispersion value	0.403

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0609
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.78
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.04
upper limit	1.61
Variability estimate	Standard error of the mean
Dispersion value	0.417

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4822
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.54
upper limit	1.15
Variability estimate	Standard error of the mean
Dispersion value	0.429

Secondary: Change From Baseline in Bath Ankylosing Spondylitis Metrology Index (BASMI) Scores: Lumbar Flexion (Modified Schober) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in Bath Ankylosing Spondylitis Metrology Index (BASMI) Scores: Lumbar Flexion (Modified Schober) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

BASMI assess axial status, spinal mobility. BASMI Linear Method score average of 5 individual component score map between 0-10, high score=more impairment. Assessment of lumbar flexion: with subject standing erect, outer edge of feet 30cm apart, mark place in midpoint of line that join posterior superior iliac spines (baseline mark). 2nd mark (A) placed 10cm above baseline mark, 3rd mark (B) 5 cm below baseline mark. Then have subject maximally bend forward, keep knees fully extend. With subject's spine in full flexion, distance between mark A,B (in cm to nearest 0.1cm) was re-measure. Distance was>=0, with no maximum defined range. High value=better health status. FAS: include all subjects who were randomised to study,receive at least one dose of randomised investigational product. On-drug data use, MR not impute. Number of subject analysed=subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Centimetres				
least squares mean (standard error)				
Week 2	0.30 (± 0.102)	-0.07 (± 0.102)		
Week 4	0.41 (± 0.102)	-0.11 (± 0.102)		
Week 8	0.32 (± 0.116)	-0.17 (± 0.115)		
Week 12	0.26 (± 0.111)	-0.22 (± 0.111)		
Week 16	0.46 (± 0.115)	-0.06 (± 0.115)		

Week 24	0.51 (± 0.149)	0.20 (± 0.148)		
Week 32	0.64 (± 0.143)	0.39 (± 0.142)		
Week 40	0.58 (± 0.156)	0.50 (± 0.155)		
Week 48	0.45 (± 0.146)	0.35 (± 0.144)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0047
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.37
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.12
upper limit	0.63
Variability estimate	Standard error of the mean
Dispersion value	0.131

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.52
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.26
upper limit	0.77
Variability estimate	Standard error of the mean
Dispersion value	0.131

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0012
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.49
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.19
upper limit	0.78
Variability estimate	Standard error of the mean
Dispersion value	0.148

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0008
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.48
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.2
upper limit	0.76
Variability estimate	Standard error of the mean
Dispersion value	0.142

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0004
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.53
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.24
upper limit	0.81
Variability estimate	Standard error of the mean
Dispersion value	0.147

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0918
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.32
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.05
upper limit	0.69
Variability estimate	Standard error of the mean
Dispersion value	0.188

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.16
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.25
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.1
upper limit	0.61
Variability estimate	Standard error of the mean
Dispersion value	0.179

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.6776
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.08
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.3
upper limit	0.47
Variability estimate	Standard error of the mean
Dispersion value	0.195

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.5646
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.25
upper limit	0.46
Variability estimate	Standard error of the mean
Dispersion value	0.18

Secondary: Change From Baseline in Bath Ankylosing Spondylitis Metrology Index (BASMI) Scores: Tragus-to-wall Distance at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in Bath Ankylosing Spondylitis Metrology Index (BASMI) Scores: Tragus-to-wall Distance at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

BASMI assess axial status,spinal mobility using linear function.Compose of 5 clinical measure:lateral spinal flexion,tragus-to-wall distance,lumbar flexion,maximal intermalleolar distance,cervical rotation.BASMI-Linear Method score average of 5 individual component score map between 0-10,high score=more impairment.Assessment of tragus-to-wall distance:subject place standing with his/her back against wall;knee straight;scapulae,buttock,heel against wall;head in as neutral position as possible.Distance between tragus,wall in cm measure to nearest 0.1cm from both right side,left side at maximum effort to touch head against wall.Distance should be >=0cm with no defined maximum value,low tragus-to-wall value=better health status.FAS:include all subject randomise, received >=1 dose of study drug.On-drug data use,MR not impute.Number of subject analysed= subject analysed for

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Centimetres				
least squares mean (standard error)				
Week 2	-0.19 (± 0.126)	-0.24 (± 0.125)		
Week 4	-0.48 (± 0.144)	-0.07 (± 0.143)		
Week 8	-0.51 (± 0.177)	0.36 (± 0.177)		
Week 12	-0.40 (± 0.169)	0.23 (± 0.169)		
Week 16	-0.50 (± 0.168)	0.09 (± 0.168)		

Week 24	-0.66 (± 0.202)	-0.03 (± 0.201)		
Week 32	-0.66 (± 0.179)	0.00 (± 0.178)		
Week 40	-0.60 (± 0.200)	-0.14 (± 0.199)		
Week 48	-0.73 (± 0.204)	-0.18 (± 0.202)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.7291
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.26
upper limit	0.37
Variability estimate	Standard error of the mean
Dispersion value	0.161

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0257
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.41

Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.78
upper limit	-0.05
Variability estimate	Standard error of the mean
Dispersion value	0.184

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0002
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.86
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.31
upper limit	-0.42
Variability estimate	Standard error of the mean
Dispersion value	0.227

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0041
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.63
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.05
upper limit	-0.2

Variability estimate	Standard error of the mean
Dispersion value	0.216

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0062
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.59
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.02
upper limit	-0.17
Variability estimate	Standard error of the mean
Dispersion value	0.215

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.014
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.63
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.13
upper limit	-0.13
Variability estimate	Standard error of the mean
Dispersion value	0.255

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0035
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.66
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.11
upper limit	-0.22
Variability estimate	Standard error of the mean
Dispersion value	0.225

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0645
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.47
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.97
upper limit	0.03
Variability estimate	Standard error of the mean
Dispersion value	0.253

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0341
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.54
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.05
upper limit	-0.04
Variability estimate	Standard error of the mean
Dispersion value	0.255

Secondary: Change From Baseline in Bath Ankylosing Spondylitis Metrology Index (BASMI) Linear Method Total Score at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in Bath Ankylosing Spondylitis Metrology Index (BASMI) Linear Method Total Score at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

BASMI used to assess axial status and spinal mobility (cervical, dorsal and lumbar spine, hips and pelvic soft tissue), was analyzed using linear function method. BASMI score composed of five clinical measures: lateral spinal flexion, tragus-to-wall distance, lumbar flexion (modified Schober), maximal intermalleolar distance,cervical rotation. BASMI - Linear Method score was average of 5 individual component scores mapped between 0 and 10, BASMI - Linear Method total score ranged from 0 (very good) to 10 (very poor), higher scores=more impairment of axial status and spinal mobility; lower scores=better health status. FAS: included all subjects who were randomised to study, received at least one dose of randomised investigational product. On-drug data was used, missing response was not imputed. Here "number of subjects analysed"=subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Units on a scale				
least squares mean (standard error)				
Week 2	-0.25 (± 0.044)	-0.03 (± 0.043)		
Week 4	-0.39 (± 0.053)	-0.06 (± 0.053)		
Week 8	-0.49 (± 0.059)	-0.03 (± 0.058)		
Week 12	-0.49 (± 0.058)	-0.02 (± 0.058)		
Week 16	-0.63 (± 0.060)	-0.11 (± 0.060)		

Week 24	-0.67 (± 0.068)	-0.38 (± 0.068)		
Week 32	-0.74 (± 0.069)	-0.52 (± 0.068)		
Week 40	-0.74 (± 0.074)	-0.55 (± 0.073)		
Week 48	-0.69 (± 0.074)	-0.54 (± 0.073)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.22
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.33
upper limit	-0.11
Variability estimate	Standard error of the mean
Dispersion value	0.056

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.33

Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.47
upper limit	-0.2
Variability estimate	Standard error of the mean
Dispersion value	0.068

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.46
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.61
upper limit	-0.31
Variability estimate	Standard error of the mean
Dispersion value	0.075

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.47
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.62
upper limit	-0.32

Variability estimate	Standard error of the mean
Dispersion value	0.075

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.52
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.67
upper limit	-0.37
Variability estimate	Standard error of the mean
Dispersion value	0.077

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0008
Method	LS mean difference
Parameter estimate	LS mean difference
Point estimate	-0.29
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.46
upper limit	-0.12
Variability estimate	Standard error of the mean
Dispersion value	0.086

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0116
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.22
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.39
upper limit	-0.05
Variability estimate	Standard error of the mean
Dispersion value	0.086

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0416
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.19
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.37
upper limit	-0.01
Variability estimate	Standard error of the mean
Dispersion value	0.093

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0915
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.16
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.34
upper limit	0.03
Variability estimate	Standard error of the mean
Dispersion value	0.092

Secondary: Change From Baseline in Functional Assessment of Chronic Illness Therapy-Fatigue (FACIT-F) Total Scores at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in Functional Assessment of Chronic Illness Therapy-Fatigue (FACIT-F) Total Scores at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

FACIT-F:13-item questionnaire(felt fatigue,felt weak all over,felt listless,felt tired,had energy,had trouble starting things as tired,had trouble finishing things as tired,was able to do usual activities,need to sleep during day,too tired to eat,need help doing usual activities,frustrated by being too tired to do things want to do,had to limit social activity because tired),each item score on 5-point scale:0 (not at all)to 4(very much).3 type of score derive:change in FACIT-F total score,change in FACIT-F experience domain score,change in FACIT-F impact domain score.FACIT-F total score calculate:summing 13 item(range 0[not at all] to 52[very much]);high score=less fatigue status.Here, change from baseline in FACIT-F total score report.FAS:all subject randomise, receive>= 1dose of study drug.On-drug data use,MR not imputed.Number of subject analysed=subject analysed for end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Units on a scale				
least squares mean (standard error)				
Week 2	3.16 (± 0.552)	0.32 (± 0.548)		
Week 4	4.80 (± 0.595)	1.19 (± 0.591)		
Week 8	6.46 (± 0.706)	1.03 (± 0.703)		
Week 12	6.25 (± 0.737)	1.24 (± 0.736)		
Week 16	6.54 (± 0.795)	3.12 (± 0.794)		
Week 24	7.42 (± 0.842)	5.84 (± 0.836)		
Week 32	7.90 (± 0.813)	7.24 (± 0.807)		
Week 40	8.67 (± 0.817)	7.15 (± 0.810)		
Week 48	9.54 (± 0.897)	7.35 (± 0.891)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	2.85
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.46
upper limit	4.24
Variability estimate	Standard error of the mean
Dispersion value	0.706

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	3.61
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.11
upper limit	5.1
Variability estimate	Standard error of the mean
Dispersion value	0.761

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	5.42
Confidence interval	
level	95 %
sides	2-sided
lower limit	3.65
upper limit	7.2
Variability estimate	Standard error of the mean
Dispersion value	0.902

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	5.01
Confidence interval	
level	95 %
sides	2-sided
lower limit	3.15
upper limit	6.86
Variability estimate	Standard error of the mean
Dispersion value	0.943

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0008
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	3.43
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.44
upper limit	5.42
Variability estimate	Standard error of the mean
Dispersion value	1.012

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.139
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.58
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.52
upper limit	3.68
Variability estimate	Standard error of the mean
Dispersion value	1.064

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.5217
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.66
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.36
upper limit	2.67
Variability estimate	Standard error of the mean
Dispersion value	1.024

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1415
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.51
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.51
upper limit	3.54
Variability estimate	Standard error of the mean
Dispersion value	1.027

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0533
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	2.19
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.03
upper limit	4.41
Variability estimate	Standard error of the mean
Dispersion value	1.128

Secondary: Change From Baseline in Functional Assessment of Chronic Illness Therapy-Fatigue (FACIT-F) Experience Domain Scores at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in Functional Assessment of Chronic Illness Therapy-Fatigue (FACIT-F) Experience Domain Scores at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

13-item(felt fatigue,felt weak all over,felt listless,felt tired,had energy,had trouble starting thing as tired,had trouble finishing thing as tired,was able to do usual activity,need to sleep during day,too tired to eat,need help doing usual activity,frustrate by being too tired to do thing wanted to do,had to limit social activity because tired) questionnaire,each item score on 5-point scale:0(not at all)to 4(very much).FACIT-F experience domain score calculate:summing 5 item:feel fatigued,feel weak all over,feel listless,feel tired,have energy.FACIT-F total experience domain score:0(not at all)to 20(very much),high score=less fatigue impact on daily function.Here,change from baseline in FACIT-F experience domain score report.FAS:include all subject randomise,receive>=1 dose of study drug.On-drug data use,MR not impute.Number of subjects analysed=subject analysed for end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Units on a scale				
least squares mean (standard error)				
Week 2	1.35 (± 0.275)	0.11 (± 0.274)		
Week 4	2.30 (± 0.298)	0.60 (± 0.296)		
Week 8	2.72 (± 0.331)	0.53 (± 0.330)		
Week 12	2.78 (± 0.343)	0.80 (± 0.344)		
Week 16	2.85 (± 0.357)	1.29 (± 0.357)		
Week 24	3.58 (± 0.384)	2.96 (± 0.382)		
Week 32	3.65 (± 0.370)	3.43 (± 0.367)		
Week 40	3.98 (± 0.375)	3.59 (± 0.371)		
Week 48	4.22 (± 0.403)	3.40 (± 0.400)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0005
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.25
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.55
upper limit	1.94
Variability estimate	Standard error of the mean
Dispersion value	0.352

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.95
upper limit	2.45
Variability estimate	Standard error of the mean
Dispersion value	0.381

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	2.19
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.35
upper limit	3.02
Variability estimate	Standard error of the mean
Dispersion value	0.423

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.98
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.11
upper limit	2.84
Variability estimate	Standard error of the mean
Dispersion value	0.439

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0007
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.56
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.67
upper limit	2.45
Variability estimate	Standard error of the mean
Dispersion value	0.454

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2018
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.62
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.33
upper limit	1.58
Variability estimate	Standard error of the mean
Dispersion value	0.485

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.6432
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.22
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.7
upper limit	1.13
Variability estimate	Standard error of the mean
Dispersion value	0.465

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4092
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.39
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.54
upper limit	1.31
Variability estimate	Standard error of the mean
Dispersion value	0.47

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.107
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.82
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.18
upper limit	1.81
Variability estimate	Standard error of the mean
Dispersion value	0.506

Secondary: Change From Baseline in Functional Assessment of Chronic Illness Therapy-Fatigue (FACIT-F) Impact Domain Scores at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in Functional Assessment of Chronic Illness Therapy-Fatigue (FACIT-F) Impact Domain Scores at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

13-item(felt fatigue,felt weak all over,felt listless,felt tired,had energy,had trouble starting thing as tired,had trouble finishing thing as tired,was able to do usual activity,need to sleep during day,too tired to eat,need help doing usual activity,frustrate by being too tired to do things want to do,had to limit social activity because tired) questionnaire,each item score on 5-point scale: 0(not at all)to 4(very much).Experience domain score calculate:sum 5 item:feel fatigue,feel weak all over,feel listless,feel tired,have energy,impact domain score calculate:summing remaining 8 item.Impact domain score:0(not at all)to 32(very much),high score=less fatigue impact on daily function.Here,change from baseline in impact domain score report.FAS:subject randomize,receive >=1 dose of study drug.On-drug data use,MR not impute.Number of subjects analysed=subject analysed for end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Units on a scale				
least squares mean (standard error)				
Week 2	1.79 (± 0.334)	0.17 (± 0.332)		
Week 4	2.47 (± 0.364)	0.55 (± 0.361)		
Week 8	3.73 (± 0.429)	0.46 (± 0.428)		
Week 12	3.45 (± 0.440)	0.41 (± 0.441)		
Week 16	3.68 (± 0.488)	1.81 (± 0.487)		
Week 24	3.84 (± 0.504)	2.86 (± 0.501)		
Week 32	4.25 (± 0.489)	3.80 (± 0.485)		
Week 40	4.70 (± 0.480)	3.57 (± 0.476)		
Week 48	5.32 (± 0.542)	3.95 (± 0.538)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0002
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.62
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.78
upper limit	2.46
Variability estimate	Standard error of the mean
Dispersion value	0.428

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.92
Confidence interval	
level	95 %
sides	2-sided
lower limit	1
upper limit	2.84
Variability estimate	Standard error of the mean
Dispersion value	0.466

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	3.26
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.18
upper limit	4.34
Variability estimate	Standard error of the mean
Dispersion value	0.549

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	3.04
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.93
upper limit	4.15
Variability estimate	Standard error of the mean
Dispersion value	0.564

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0028
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.87
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.65
upper limit	3.09
Variability estimate	Standard error of the mean
Dispersion value	0.621

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1289
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.97
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.28
upper limit	2.23
Variability estimate	Standard error of the mean
Dispersion value	0.638

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4698
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.45
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.77
upper limit	1.66
Variability estimate	Standard error of the mean
Dispersion value	0.616

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0616
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.13
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.06
upper limit	2.32
Variability estimate	Standard error of the mean
Dispersion value	0.603

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0455
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	1.37
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.03
upper limit	2.71
Variability estimate	Standard error of the mean
Dispersion value	0.681

Secondary: Change From Baseline in Patient's Global Assessment of Disease (PGA) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in Patient's Global Assessment of Disease (PGA) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

Subjects answered the question, "How active was your spondylitis on average during the last week?. Subject's response was recorded using a numerical rating scale ranged from 0 (Not Active) to 10 (Very Active), with higher scores indicated more severe disease. FAS: included all subjects who were randomised to the study and received at least one dose of the randomised investigational product (i.e., tofacitinib or placebo). Here, on-drug data was used and missing response was not imputed. Here "number of subjects analysed" signifies subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Units on a scale				
least squares mean (standard error)				
Week 2	-1.21 (± 0.144)	-0.32 (± 0.144)		
Week 4	-1.85 (± 0.168)	-0.63 (± 0.167)		
Week 8	-2.14 (± 0.181)	-0.42 (± 0.181)		
Week 12	-2.37 (± 0.193)	-0.65 (± 0.193)		
Week 16	-2.47 (± 0.204)	-0.91 (± 0.204)		
Week 24	-2.76 (± 0.222)	-2.21 (± 0.221)		
Week 32	-3.04 (± 0.228)	-2.43 (± 0.226)		

Week 40	-3.04 (± 0.222)	-2.50 (± 0.220)		
Week 48	-3.47 (± 0.225)	-2.94 (± 0.223)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.88
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.25
upper limit	-0.52
Variability estimate	Standard error of the mean
Dispersion value	0.185

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.22
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.65
upper limit	-0.8
Variability estimate	Standard error of the mean
Dispersion value	0.215

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.71
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.17
upper limit	-1.26
Variability estimate	Standard error of the mean
Dispersion value	0.232

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.72
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.2
upper limit	-1.23
Variability estimate	Standard error of the mean
Dispersion value	0.247

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.56
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.07
upper limit	-1.05
Variability estimate	Standard error of the mean
Dispersion value	0.26

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0483
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.56
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.11
upper limit	0
Variability estimate	Standard error of the mean
Dispersion value	0.281

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0357
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.17
upper limit	-0.04
Variability estimate	Standard error of the mean
Dispersion value	0.286

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0508
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.55
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.09
upper limit	0
Variability estimate	Standard error of the mean
Dispersion value	0.278

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0614
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.53
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.08
upper limit	0.03
Variability estimate	Standard error of the mean
Dispersion value	0.282

Secondary: Change From Baseline in Patient's Assessment of Spinal Pain: Total back Pain at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in Patient's Assessment of Spinal Pain: Total back Pain at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

Subjects marked their level of total back pain on a numerical rating scale (NRS) ranged from 0 (no pain) to 10 (most severe pain), with higher scores indicated more severe pain. FAS: included all subjects who were randomised to the study and received at least one dose of the randomised investigational product (i.e., tofacitinib or placebo). Here, on-drug data was used and missing response was not imputed. Here "number of subjects analysed" signifies subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Units on a scale				
least squares mean (standard error)				
Week 2	-1.28 (± 0.145)	-0.38 (± 0.144)		
Week 4	-2.05 (± 0.164)	-0.71 (± 0.164)		
Week 8	-2.51 (± 0.173)	-0.53 (± 0.173)		
Week 12	-2.57 (± 0.192)	-0.69 (± 0.192)		
Week 16	-2.57 (± 0.191)	-0.96 (± 0.191)		
Week 24	-2.99 (± 0.206)	-2.47 (± 0.205)		
Week 32	-3.16 (± 0.212)	-2.86 (± 0.210)		
Week 40	-3.11 (± 0.217)	-2.62 (± 0.215)		

Week 48	-3.57 (± 0.220)	-2.87 (± 0.218)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.89
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.26
upper limit	-0.53
Variability estimate	Standard error of the mean
Dispersion value	0.186

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.34
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.75
upper limit	-0.92
Variability estimate	Standard error of the mean
Dispersion value	0.21

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.98
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.41
upper limit	-1.54
Variability estimate	Standard error of the mean
Dispersion value	0.221

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.89
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.37
upper limit	-1.4
Variability estimate	Standard error of the mean
Dispersion value	0.245

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.62
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.1
upper limit	-1.14
Variability estimate	Standard error of the mean
Dispersion value	0.243

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0492
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.51
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.03
upper limit	0
Variability estimate	Standard error of the mean
Dispersion value	0.261

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2614
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.82
upper limit	0.22
Variability estimate	Standard error of the mean
Dispersion value	0.266

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0722
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.49
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.03
upper limit	0.04
Variability estimate	Standard error of the mean
Dispersion value	0.272

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0121
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.24
upper limit	-0.15
Variability estimate	Standard error of the mean
Dispersion value	0.275

Secondary: Change From Baseline in Patient's Assessment of Spinal Pain: Nocturnal Spinal Pain at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in Patient's Assessment of Spinal Pain: Nocturnal Spinal Pain at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

Subjects marked their level of nocturnal spinal pain on a NRS ranged from 0 (no pain) to 10 (most severe pain), with higher scores indicated more severe pain. FAS: included all subjects who were randomised to the study and received at least one dose of the randomised investigational product (i.e., tofacitinib or placebo). Here, on-drug data was used and missing response was not imputed. Here "number of subjects analysed" signifies subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Units on a scale				
least squares mean (standard error)				
Week 2	-1.24 (± 0.162)	-0.32 (± 0.161)		
Week 4	-2.15 (± 0.169)	-0.56 (± 0.167)		
Week 8	-2.61 (± 0.191)	-0.59 (± 0.190)		
Week 12	-2.60 (± 0.198)	-0.60 (± 0.199)		
Week 16	-2.67 (± 0.204)	-0.84 (± 0.204)		
Week 24	-3.07 (± 0.217)	-2.59 (± 0.215)		
Week 32	-3.17 (± 0.219)	-2.89 (± 0.217)		

Week 40	-3.20 (± 0.226)	-2.73 (± 0.224)		
Week 48	-3.52 (± 0.229)	-3.01 (± 0.227)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.92
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.33
upper limit	-0.51
Variability estimate	Standard error of the mean
Dispersion value	0.207

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.02
upper limit	-1.17
Variability estimate	Standard error of the mean
Dispersion value	0.216

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-2.02
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.5
upper limit	-1.54
Variability estimate	Standard error of the mean
Dispersion value	0.244

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.5
upper limit	-1.5
Variability estimate	Standard error of the mean
Dispersion value	0.254

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.84
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.35
upper limit	-1.32
Variability estimate	Standard error of the mean
Dispersion value	0.26

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0785
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.48
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.02
upper limit	0.06
Variability estimate	Standard error of the mean
Dispersion value	0.274

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.3047
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.28
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.82
upper limit	0.26
Variability estimate	Standard error of the mean
Dispersion value	0.275

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1009
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.47
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.02
upper limit	0.09
Variability estimate	Standard error of the mean
Dispersion value	0.283

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0764
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.51
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.08
upper limit	0.05
Variability estimate	Standard error of the mean
Dispersion value	0.287

Secondary: Change From Baseline in in Bath Ankylosing Spondylitis Functional Index (BASFI) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in in Bath Ankylosing Spondylitis Functional Index (BASFI) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

BASFI was a functional index which included 10 items assessing ability of subjects to perform normal daily activities. The first 8 questions/items consider activities related to functional anatomy. The final 2 questions/items assess the subjects' ability to cope with everyday life. Each item was scored on a scale of 0=easy to 10=impossible. The BASFI total score was calculated as the average score of these 10 individual items. BASFI total score ranged from 0 (easy) to 10 (impossible), where higher scores indicated more severe disease activity. FAS: included all subjects who were randomised to the study and received at least one dose of the randomised investigational product (i.e., tofacitinib or placebo). Here, on-drug data was used and missing response was not imputed. Here "number of subjects analysed" signifies subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Units on a scale				
least squares mean (standard error)				
Week 2	-0.87 (± 0.125)	-0.45 (± 0.124)		
Week 4	-1.35 (± 0.140)	-0.58 (± 0.139)		
Week 8	-1.79 (± 0.158)	-0.69 (± 0.157)		
Week 12	-2.01 (± 0.164)	-0.71 (± 0.164)		
Week 16	-2.05 (± 0.170)	-0.82 (± 0.169)		

Week 24	-2.25 (± 0.191)	-1.91 (± 0.190)		
Week 32	-2.42 (± 0.188)	-2.16 (± 0.187)		
Week 40	-2.62 (± 0.192)	-2.23 (± 0.191)		
Week 48	-2.61 (± 0.196)	-2.32 (± 0.195)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0089
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.42
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.73
upper limit	-0.11
Variability estimate	Standard error of the mean
Dispersion value	0.159

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.77

Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.12
upper limit	-0.42
Variability estimate	Standard error of the mean
Dispersion value	0.179

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.5
upper limit	-0.7
Variability estimate	Standard error of the mean
Dispersion value	0.202

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.29
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.71
upper limit	-0.88

Variability estimate	Standard error of the mean
Dispersion value	0.21

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.23
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.66
upper limit	-0.8
Variability estimate	Standard error of the mean
Dispersion value	0.217

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1686
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.33
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.81
upper limit	0.14
Variability estimate	Standard error of the mean
Dispersion value	0.242

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.28
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.26
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.72
upper limit	0.21
Variability estimate	Standard error of the mean
Dispersion value	0.238

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1135
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.39
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.86
upper limit	0.09
Variability estimate	Standard error of the mean
Dispersion value	0.243

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2496
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.29
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.77
upper limit	0.2
Variability estimate	Standard error of the mean
Dispersion value	0.247

Secondary: Change From Baseline in the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) Inflammation (Morning Stiffness) Score at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) Inflammation (Morning Stiffness) Score at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

BASDAI: validated questionnaire of 6 questions about 5 major symptoms of AS: fatigue; spinal pain; peripheral arthritis; enthesitis, intensity of morning stiffness, duration of morning stiffness. Each question rated:0 (none) to 10 (very severe), high score=high disease activity. BASDAI score calculated by computing the mean of Q5 and Q6 and adding it to sum of questions 1-4. This score then divided by 5. Total BASDAI score ranged from 0=none to 10=very severe disease activity. BASDAI inflammation score derived by taking the mean of response of Q5 and Q6, range from 0 (none) to 10 (very severe), high score=more inflammation (morning stiffness). FAS: included all subjects randomised, received >= 1 dose of investigational product. On-drug data used, MR not imputed. Number of subjects analysed=subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Units on a scale				
least squares mean (standard error)				
Week 2	-1.33 (± 0.149)	-0.49 (± 0.149)		
Week 4	-2.08 (± 0.164)	-0.60 (± 0.163)		
Week 8	-2.52 (± 0.178)	-0.91 (± 0.178)		
Week 12	-2.71 (± 0.185)	-0.84 (± 0.186)		
Week 16	-2.69 (± 0.185)	-0.97 (± 0.185)		

Week 24	-2.99 (± 0.193)	-2.48 (± 0.193)		
Week 32	-3.11 (± 0.200)	-2.61 (± 0.199)		
Week 40	-3.28 (± 0.204)	-2.64 (± 0.203)		
Week 48	-3.46 (± 0.214)	-2.90 (± 0.213)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.84
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.22
upper limit	-0.47
Variability estimate	Standard error of the mean
Dispersion value	0.191

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.48

Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.89
upper limit	-1.07
Variability estimate	Standard error of the mean
Dispersion value	0.21

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.61
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.06
upper limit	-1.16
Variability estimate	Standard error of the mean
Dispersion value	0.228

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.87
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.34
upper limit	-1.4

Variability estimate	Standard error of the mean
Dispersion value	0.237

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.72
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.18
upper limit	-1.25
Variability estimate	Standard error of the mean
Dispersion value	0.236

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0385
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.51
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.99
upper limit	-0.03
Variability estimate	Standard error of the mean
Dispersion value	0.245

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0463
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1
upper limit	-0.01
Variability estimate	Standard error of the mean
Dispersion value	0.252

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0126
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.65
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.15
upper limit	-0.14
Variability estimate	Standard error of the mean
Dispersion value	0.257

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0372
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.56
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.09
upper limit	-0.03
Variability estimate	Standard error of the mean
Dispersion value	0.268

Secondary: Percentage of Subjects Achieving ASAS 5/6 Response at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Percentage of Subjects Achieving ASAS 5/6 Response at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

ASAS 5/6 consisted of 6 domain: 4 used in ASAS20–PGA of Disease (assess disease activity on scale of 0 [not active] to 10 [very active], high score=more disease activity), Spinal Pain (total back pain) (on scale of 0 [no pain] to 10 [most severe pain], high score=more severity), Function (using BASFI which assessed subject's level of ability on scale of 0 [easy] to 10 [impossible], low score= better functional health), Inflammation (using BASDAI, mean of Q 5 and 6, which assess disease activity on scale of 0 [none] to 10 [severe], high score=more disease activity), CRP (measured in mg per liter), Spinal mobility measured in cm, calculated as mean of right and left measurements of lateral spinal flexion from BASMI. ASAS 5/6: define as >=20% improvement in at least 5 domain. FAS: include all subject who were randomize, received >=1 dose of study drug. On-drug data used, MR=NR.

End point type	Secondary

End point timeframe:

Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	133	136		
Units: Percentage of subjects				
number (not applicable)				
Week 2	16.54	2.94		
Week 4	35.34	6.62		
Week 8	41.35	8.09		
Week 12	45.86	9.56		
Week 16	43.61	7.35		
Week 24	49.62	44.12		
Week 32	51.13	53.68		
Week 40	48.87	50.74		
Week 48	43.61	44.85		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 2: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	13.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	6.68
upper limit	20.52
Variability estimate	Standard error of the mean
Dispersion value	3.53

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 4: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	28.79
Confidence interval	
level	95 %
sides	2-sided
lower limit	19.78
upper limit	37.8
Variability estimate	Standard error of the mean
Dispersion value	4.6

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	33.31
Confidence interval	
level	95 %
sides	2-sided
lower limit	23.84
upper limit	42.78
Variability estimate	Standard error of the mean
Dispersion value	4.83

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	36.37
Confidence interval	
level	95 %
sides	2-sided
lower limit	26.67
upper limit	46.07
Variability estimate	Standard error of the mean
Dispersion value	4.95

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 16: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	36.34
Confidence interval	
level	95 %
sides	2-sided
lower limit	27.05
upper limit	45.63
Variability estimate	Standard error of the mean
Dispersion value	4.74

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.3498
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	5.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.14
upper limit	17.35
Variability estimate	Standard error of the mean
Dispersion value	5.99

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.6835
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	-2.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-13.96
upper limit	9.15
Variability estimate	Standard error of the mean
Dispersion value	5.89

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.7704
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	-1.75
Confidence interval	
level	95 %
sides	2-sided
lower limit	-13.47
upper limit	9.98
Variability estimate	Standard error of the mean
Dispersion value	5.98

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.8492
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	-1.13

Confidence interval	
level	95 %
sides	2-sided
lower limit	-12.8
upper limit	10.53
Variability estimate	Standard error of the mean
Dispersion value	5.95

Secondary: Percentage of Subjects Achieving ASAS Partial Remission at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Percentage of Subjects Achieving ASAS Partial Remission at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

Partial remission define as a score of 2 or less (on a scale of 0-10, 0=no disease activity, 10=high disease activity) in each of the 4 domain in ASAS. These 4 domain include: PGA (assess disease activity on a scale of 0 [not active] to 10 [very active], high score=more disease activity), total back pain (on a scale of 0 [no pain] to 10 [most severe pain], high score=more severity), Function (using BASFI which assessed subject's level of ability on a scale of 0 [easy] to 10 [impossible], low score= better functional health), Inflammation (using BASDAI, mean of Q 5 and 6, which assess disease activity on a scale of 0 [none] to 10 [severe], high score=more disease activity). FAS: include all subjects who were randomised to the study, received at least one dose of the randomised investigational product (i.e., tofacitinib or placebo). Here, on-drug data used, MR=NR.

End point type	Secondary

End point timeframe:

Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	133	136		
Units: Percentage of subjects				
number (not applicable)				
Week 2	2.26	0		
Week 4	4.51	0		
Week 8	7.52	1.47		
Week 12	15.04	2.94		
Week 16	15.04	2.94		
Week 24	21.80	11.76		
Week 32	23.31	15.44		
Week 40	24.06	16.91		
Week 48	23.31	17.65		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using Normal approximation adjusting for the stratification factor derived

from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1692
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	2.24
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.95
upper limit	5.43
Variability estimate	Standard error of the mean
Dispersion value	1.63

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0289
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	4.46
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.46
upper limit	8.46
Variability estimate	Standard error of the mean
Dispersion value	2.04

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 8: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0199
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	6.02
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.95
upper limit	11.09
Variability estimate	Standard error of the mean
Dispersion value	2.59

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 12: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0005
Method	Difference in percentage
Parameter estimate	Difference in percentage
Point estimate	12.03
Confidence interval	
level	95 %
sides	2-sided
lower limit	5.26
upper limit	18.81
Variability estimate	Standard error of the mean
Dispersion value	3.46

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0005
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	12.05

Confidence interval	
level	95 %
sides	2-sided
lower limit	5.29
upper limit	18.8
Variability estimate	Standard error of the mean
Dispersion value	3.45

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 32: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.095
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	7.93
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.38
upper limit	17.24
Variability estimate	Standard error of the mean
Dispersion value	4.75

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 24: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0253
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	10.03
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.24
upper limit	18.83
Variability estimate	Standard error of the mean
Dispersion value	4.49

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 40: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1377
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	7.21
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.31
upper limit	16.73
Variability estimate	Standard error of the mean
Dispersion value	4.86

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 48: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2472
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	5.68
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.94
upper limit	15.3
Variability estimate	Standard error of the mean
Dispersion value	4.91

Secondary: Change From Baseline in the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) Total Score at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change From Baseline in the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) Total Score at Weeks 2, 4, 8,

	12, 16, 24, 32, 40 and 48

End point description:

BASDAI was validated questionnaire that consisted of 6 questions pertaining to 5 major symptoms of AS: fatigue; spinal pain; peripheral arthritis; enthesitis, intensity of morning stiffness, duration of morning stiffness. Each question was rated using numerical rating scale from 0 (none) to 10 (very severe), high score=high disease activity. BASDAI score was calculated by computing mean of Q 5 and 6, adding it to sum of questions 1 to 4. This score was then divided by 5. The total BASDAI score was ranged from 0= none to 10= very severe, where high score indicated high disease activity. FAS: included all subjects who were randomised to the study and received at least one dose of the randomised investigational product. Here, on-drug data was used and missing response was not imputed. Here "number of subjects analysed" = subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Units on a scale				
least squares mean (standard error)				
Week 2	-1.25 (± 0.127)	-0.52 (± 0.126)		
Week 4	-1.95 (± 0.146)	-0.67 (± 0.145)		
Week 8	-2.32 (± 0.164)	-0.82 (± 0.163)		
Week 12	-2.49 (± 0.172)	-0.81 (± 0.172)		
Week 16	-2.55 (± 0.175)	-1.11 (± 0.174)		
Week 24	-2.81 (± 0.185)	-2.41 (± 0.184)		
Week 32	-2.94 (± 0.191)	-2.53 (± 0.190)		
Week 40	-3.09 (± 0.193)	-2.63 (± 0.192)		
Week 48	-3.30 (± 0.199)	-2.80 (± 0.197)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.73
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.05
upper limit	-0.41
Variability estimate	Standard error of the mean
Dispersion value	0.163

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.28
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.65
upper limit	-0.91
Variability estimate	Standard error of the mean
Dispersion value	0.187

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.92
upper limit	-1.09
Variability estimate	Standard error of the mean
Dispersion value	0.21

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.68
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.11
upper limit	-1.24
Variability estimate	Standard error of the mean
Dispersion value	0.221

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-1.44
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.88
upper limit	-1
Variability estimate	Standard error of the mean
Dispersion value	0.223

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.088
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.4
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.86
upper limit	0.06
Variability estimate	Standard error of the mean
Dispersion value	0.235

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0921
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.41
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.88
upper limit	0.07
Variability estimate	Standard error of the mean
Dispersion value	0.241

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0597
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.46
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.94
upper limit	0.02
Variability estimate	Standard error of the mean
Dispersion value	0.243

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0492
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.49
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.99
upper limit	0
Variability estimate	Standard error of the mean
Dispersion value	0.25

Secondary: Percentage of Subjects Achieving Bath Ankylosing Spondylitis Disease Activity Index 50 (BASDAI50) Response at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Percentage of Subjects Achieving Bath Ankylosing Spondylitis Disease Activity Index 50 (BASDAI50) Response at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

BASDAI: validated questionnaire that consist of 6 question pertaining to 5 major symptom of AS: fatigue; spinal pain; peripheral arthritis; enthesitis, intensity of morning stiffness, duration of morning stiffness. Each question was rate using numerical rating scale from 0 (none) to 10 (very severe), high score=high disease activity. BASDAI score calculate by computing mean of Q5 and Q6 and adding it to sum of questions 1 to 4. This score was then divided by 5. Total BASDAI score range from 0= none to 10= very severe, high score=high disease activity. BASDAI50 response defined as decrease of >=50% from Baseline in BASDAI score at specified time point. Percentage of subjects with BASDAI 50 response at specified weeks are reported. FAS: included all subjects who were randomized, received at least one dose of randomised investigational product. Here, on-drug data was used, MR=NR.

End point type	Secondary

End point timeframe:

Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	133	136		
Units: Percentage of subjects				
number (not applicable)				
Week 2	12.03	3.68		
Week 4	29.32	6.62		
Week 8	39.85	11.03		
Week 12	42.86	11.03		
Week 16	42.86	17.65		
Week 24	47.37	36.76		
Week 32	51.13	41.18		
Week 40	52.63	39.71		
Week 48	51.13	40.44		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 2: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0116
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	8.31
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.86
upper limit	14.77
Variability estimate	Standard error of the mean
Dispersion value	3.29

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 4: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	22.74
Confidence interval	
level	95 %
sides	2-sided
lower limit	13.99
upper limit	31.49
Variability estimate	Standard error of the mean
Dispersion value	4.46

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	28.87
Confidence interval	
level	95 %
sides	2-sided
lower limit	19.09
upper limit	38.66
Variability estimate	Standard error of the mean
Dispersion value	4.99

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	31.93
Confidence interval	
level	95 %
sides	2-sided
lower limit	22.28
upper limit	41.58
Variability estimate	Standard error of the mean
Dispersion value	4.92

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	25.28
Confidence interval	
level	95 %
sides	2-sided
lower limit	14.82
upper limit	35.75
Variability estimate	Standard error of the mean
Dispersion value	5.34

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0683
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	10.71
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.8
upper limit	22.23
Variability estimate	Standard error of the mean
Dispersion value	5.88

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0906
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	10.05
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.59
upper limit	21.7
Variability estimate	Standard error of the mean
Dispersion value	5.94

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0282
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	13.03
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.39
upper limit	24.66
Variability estimate	Standard error of the mean
Dispersion value	5.94

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0719
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	10.77

Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.96
upper limit	22.49
Variability estimate	Standard error of the mean
Dispersion value	5.98

Secondary: Percentage of Subjects With Ankylosing Spondylitis Disease Activity Score Using C-Reactive Protein (ASDAS[CRP]) Clinically Important Improvement Response at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Percentage of Subjects With Ankylosing Spondylitis Disease Activity Score Using C-Reactive Protein (ASDAS[CRP]) Clinically Important Improvement Response at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

Derive by BASDAI(6-item questionnaire:disease activity on scale:0[none]-10[severe], high score=more disease activity),PGA(disease activity on a scale of 0[not active]-10[very active],high score=more disease activity),using formula,0.121xBack Pain(Q2 of BASDAI)+0.058xDuration of Morning Stiffness(Q6 of BASDAI)+0.110xPGA+0.073xPeripheral Pain/Swelling(Q3 of BASDAI)+0.579 x Ln(hsCRP mg/L+1).If hsCRP value <2mg/L,set to 2mg/L in formula.Range:>=0.636-no defined upper limit.Negative change from baseline=decrease in disease activity;positive change from baseline=increase in disease activity.ASDAS(CRP) clinically important improvement:decrease from Baseline >=1.1 unit in ASDAS(CRP) score.FAS:subject randomised,receive >=1 dose of study drug.Analysis include subject with baseline ASDAS(CRP)>=1.736 unit.On-drug data used, MR=NR. Number of subject analysed=subject analysed for end point.

End point type	Secondary

End point timeframe:

Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Percentage of subjects				
number (not applicable)				
Week 2	39.39	6.62		
Week 4	53.03	12.50		
Week 8	59.85	14.71		
Week 12	60.61	15.44		
Week 16	61.36	19.12		
Week 24	65.15	60.29		
Week 32	65.91	61.76		
Week 40	63.64	57.35		
Week 48	58.33	52.94		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 2: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	32.79
Confidence interval	
level	95 %
sides	2-sided
lower limit	23.48
upper limit	42.11
Variability estimate	Standard error of the mean
Dispersion value	4.75

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 4: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	40.53
Confidence interval	
level	95 %
sides	2-sided
lower limit	30.37
upper limit	50.7
Variability estimate	Standard error of the mean
Dispersion value	5.19

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	45.22
Confidence interval	
level	95 %
sides	2-sided
lower limit	35.03
upper limit	55.41
Variability estimate	Standard error of the mean
Dispersion value	5.2

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 12: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	45.23
Confidence interval	
level	95 %
sides	2-sided
lower limit	34.97
upper limit	55.49
Variability estimate	Standard error of the mean
Dispersion value	5.23

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	42.3

Confidence interval	
level	95 %
sides	2-sided
lower limit	31.73
upper limit	52.88
Variability estimate	Standard error of the mean
Dispersion value	5.4

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 24: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.3967
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	4.96
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.51
upper limit	16.42
Variability estimate	Standard error of the mean
Dispersion value	5.85

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 32: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4442
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	4.34
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.78
upper limit	15.46
Variability estimate	Standard error of the mean
Dispersion value	5.67

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 40: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.281
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	6.38
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.22
upper limit	17.97
Variability estimate	Standard error of the mean
Dispersion value	5.92

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 48: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.3514
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	5.54
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.12
upper limit	17.2
Variability estimate	Standard error of the mean
Dispersion value	5.95

Secondary: Percentage of Subjects Ankylosing Spondylitis Disease Activity Score Using C-Reactive Protein (ASDAS[CRP]) Major Improvement Response at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Percentage of Subjects Ankylosing Spondylitis Disease Activity

	Score Using C-Reactive Protein (ASDAS[CRP]) Major Improvement Response at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

Derive by BASDAI:6-item questionnaire measure disease activity;scale:0[none]-10[severe],high score=more disease activity,PGA:measure disease activity;scale 0[not active]-10[very active],high score=more disease activity),by using the formula,0.121xBack Pain(Q2 of BASDAI)+0.058xDuration of Morning Stiffness(Q6 of BASDAI)+0.110xPGA+0.073xPeripheral Pain/Swelling(Q3 of BASDAI)+0.579 x Ln(hsCRP mg/L+1).If hsCRP value <2mg/L, set to 2mg/L in formula.Range:>=0.636 to no defined upper limit.Negative change from baseline=decrease in disease activity;positive change from baseline=increase in disease activity.ASDAS(CRP) major improvement defined as response if decrease from Baseline of >=2.0units.FAS:all subject randomise,receive >=1 dose of study drug.Analysis include subject with baseline ASDAS(CRP)>=2.636unit.On-drug data use, MR=NR. Number of subject analysed=subject analysed for end point.

End point type	Secondary

End point timeframe:

Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	123	129		
Units: Percentage of subjects				
number (not applicable)				
Week 2	8.94	0.00		
Week 4	17.89	1.55		
Week 8	22.76	2.33		
Week 12	26.02	3.10		
Week 16	30.08	4.65		
Week 24	34.15	24.81		
Week 32	36.59	34.11		
Week 40	39.02	31.78		
Week 48	33.33	28.68		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	252
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0013
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	8.84

Confidence interval	
level	95 %
sides	2-sided
lower limit	3.46
upper limit	14.21
Variability estimate	Standard error of the mean
Dispersion value	2.74

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	252
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	16.25
Confidence interval	
level	95 %
sides	2-sided
lower limit	9.13
upper limit	23.36
Variability estimate	Standard error of the mean
Dispersion value	3.63

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 8: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	252
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	20.31
Confidence interval	
level	95 %
sides	2-sided
lower limit	12.41
upper limit	28.2
Variability estimate	Standard error of the mean
Dispersion value	4.03

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 12: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	252
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	22.77
Confidence interval	
level	95 %
sides	2-sided
lower limit	14.46
upper limit	31.08
Variability estimate	Standard error of the mean
Dispersion value	4.24

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	252
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	25.28
Confidence interval	
level	95 %
sides	2-sided
lower limit	16.47
upper limit	34.1
Variability estimate	Standard error of the mean
Dispersion value	4.5

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	252
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0941
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	9.41
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.61
upper limit	20.43
Variability estimate	Standard error of the mean
Dispersion value	5.62

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	252
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.6727
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	2.52
Confidence interval	
level	95 %
sides	2-sided
lower limit	-9.17
upper limit	14.21
Variability estimate	Standard error of the mean
Dispersion value	5.96

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	252
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2213
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	7.29
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.39
upper limit	18.98
Variability estimate	Standard error of the mean
Dispersion value	5.96

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	252
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4137
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	4.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.58
upper limit	15.98
Variability estimate	Standard error of the mean
Dispersion value	5.76

Secondary: Percentage of Subjects Ankylosing Spondylitis Disease Activity Score Using C-Reactive Protein (ASDAS[CRP]) Inactive Disease Response at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Percentage of Subjects Ankylosing Spondylitis Disease Activity Score Using C-Reactive Protein (ASDAS[CRP]) Inactive Disease Response at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

Derived by BASDAI:6-item questionnaire;disease activity on scale:0[none]-10[severe], high score=more disease activity,PGA:disease activity on a scale of 0[not active]-10[very active],high score=more disease activity,using formula,0.121xBack Pain(Q2 of BASDAI)+0.058xDuration of Morning Stiffness(Q6 of BASDAI)+0.110xPGA+0.073xPeripheral Pain/Swelling(Q3 of BASDAI)+0.579 x Ln(hsCRP mg/L+1).If hsCRP values <2mg/L, set to 2mg/L in formula.Range:>=0.636-no defined upper limit.Negative change from baseline=decrease in disease activity;positive change from baseline=increase in disease activity. ASDAS(CRP) inactive disease:defined as response if actual ASDAS(CRP) <1.3 units. FAS:all subject randomised,receive >=1 dose of study drug.Analysis includes subjects with baseline

ASDAS(CRP)>=1.3unit.On-drug data used, MR=NR.

End point type	Secondary

End point timeframe:

Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	133	136		
Units: Percentage of subjects				
number (not applicable)				
Week 2	0.75	0.00		
Week 4	3.76	0.00		
Week 8	6.02	0.74		
Week 12	11.28	0.74		
Week 16	6.77	0.00		
Week 24	12.78	11.76		
Week 32	18.05	13.24		
Week 40	17.29	16.91		
Week 48	15.04	13.24		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.5518
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	0.75
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.73
upper limit	3.24
Variability estimate	Standard error of the mean
Dispersion value	1.27

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0524
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	3.72
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.04
upper limit	7.47
Variability estimate	Standard error of the mean
Dispersion value	1.92

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 8: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0216
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	5.25
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.77
upper limit	9.73
Variability estimate	Standard error of the mean
Dispersion value	2.29

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 12: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0003
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	10.48
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.8
upper limit	16.17
Variability estimate	Standard error of the mean
Dispersion value	2.9

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0047
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	6.69
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.05
upper limit	11.33
Variability estimate	Standard error of the mean
Dispersion value	2.37

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.7883
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	1.07

Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.74
upper limit	8.88
Variability estimate	Standard error of the mean
Dispersion value	3.98

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 32: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2708
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	4.85
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.78
upper limit	13.48
Variability estimate	Standard error of the mean
Dispersion value	4.4

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 40: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.9226
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	0.44
Confidence interval	
level	95 %
sides	2-sided
lower limit	-8.48
upper limit	9.36
Variability estimate	Standard error of the mean
Dispersion value	4.55

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 48: Analysis performed using Normal approximation adjusting for the stratification factor derived from clinical database via CMH approach.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	269
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.663
Method	Cochran-Mantel-Haenszel
Parameter estimate	Difference in percentage
Point estimate	1.84
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.44
upper limit	10.13
Variability estimate	Standard error of the mean
Dispersion value	4.23

Secondary: Change from baseline in Maastricht Ankylosing Spondylitis Enthesitis Score (MASES) at Weeks 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change from baseline in Maastricht Ankylosing Spondylitis Enthesitis Score (MASES) at Weeks 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

MASES:index use to measure severity of enthesitis. Enthesitis is inflammation of enthuses (heels). MASES assess 13 sites for enthesitis. Sites assess include 1st costochondral joint (left [l]/right [r]), 7th costochondral joint (l/r), posterior superior iliac spine (l/r), posterior anterior iliac spine (l/r), iliac crest (l/r), proximal insertion of Achilles tendon (l/r) and 5th lumbar spinous process. Each site was grade for presence (1) and absence (0) of tenderness yielding total MASES score ranging from 0 (no tenderness) to 13 (worst possible score) with high score =more severe tenderness. FAS: include all subject who were randomised to study, received at least one dose of randomised investigational product. Analysis include only subject with baseline MASES > 0. Here, on-drug data was use, MR was not impute. Here number of subjects analysed=subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	70	79		
Units: Units on a scale				
least squares mean (standard error)				

Week 4	-1.42 (± 0.264)	-0.59 (± 0.244)		
Week 8	-2.02 (± 0.275)	-1.28 (± 0.255)		
Week 12	-1.89 (± 0.289)	-1.17 (± 0.271)		
Week 16	-1.94 (± 0.288)	-1.41 (± 0.272)		
Week 24	-2.50 (± 0.251)	-2.32 (± 0.240)		
Week 32	-2.73 (± 0.204)	-2.54 (± 0.200)		
Week 40	-2.73 (± 0.189)	-2.75 (± 0.183)		
Week 48	-2.87 (± 0.225)	-2.56 (± 0.222)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	149
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0099
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.84
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.47
upper limit	-0.2
Variability estimate	Standard error of the mean
Dispersion value	0.319

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	149
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0275
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.74
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.4
upper limit	-0.08
Variability estimate	Standard error of the mean
Dispersion value	0.332

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	149
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.042
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.72
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.41
upper limit	-0.03
Variability estimate	Standard error of the mean
Dispersion value	0.35

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	149
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1309
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.53
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.22
upper limit	0.16
Variability estimate	Standard error of the mean
Dispersion value	0.349

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	149
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.5566
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.18
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.78
upper limit	0.42
Variability estimate	Standard error of the mean
Dispersion value	0.305

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	149
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4497
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.19
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.68
upper limit	0.3
Variability estimate	Standard error of the mean
Dispersion value	0.248

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	149
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.9272
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.02
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.43
upper limit	0.47
Variability estimate	Standard error of the mean
Dispersion value	0.227

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	149
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2539
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.31
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.85
upper limit	0.23
Variability estimate	Standard error of the mean
Dispersion value	0.273

Secondary: Change from baseline in Swollen Joint Count (SJC) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change from baseline in Swollen Joint Count (SJC) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

Swollen joint count was an assessment on 44 joints (sternoclaviculars, acromioclaviculars, shoulders, elbows, wrists, metacarpophalangeals, thumb interphalangeal, proximal interphalangeals, knees, ankles, and metatarsophalangeals). Each joint was assessed for swelling as: Present or Absent. Artificial joints were not assessed. FAS: included all subjects who were randomised to the study and received at least one dose of the randomised investigational product (i.e., tofacitinib or placebo). Analysis included only subjects with baseline SJC(44) > 0. Here, on-drug data was used and missing response was not imputed. Here "number of subjects analysed" signifies subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	33	38		
Units: Joint count				
least squares mean (standard error)				
Week 2	-1.71 (± 0.376)	-2.09 (± 0.358)		
Week 4	-1.90 (± 0.418)	-2.23 (± 0.398)		
Week 8	-2.39 (± 0.456)	-2.45 (± 0.438)		
Week 12	-2.79 (± 0.428)	-2.45 (± 0.419)		
Week 16	-3.35 (± 0.475)	-2.79 (± 0.465)		
Week 24	-2.81 (± 0.346)	-3.32 (± 0.335)		
Week 32	-2.45 (± 0.357)	-3.21 (± 0.341)		

Week 40	-3.04 (± 0.289)	-3.34 (± 0.274)		
Week 48	-3.31 (± 0.176)	-3.82 (± 0.174)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	71
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4379
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.37
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.58
upper limit	1.33
Variability estimate	Standard error of the mean
Dispersion value	0.479

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	71
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.534
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.33
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.73
upper limit	1.39
Variability estimate	Standard error of the mean
Dispersion value	0.532

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	71
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.9148
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.1
upper limit	1.22
Variability estimate	Standard error of the mean
Dispersion value	0.582

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	71
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.5409
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.34
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.43
upper limit	0.76
Variability estimate	Standard error of the mean
Dispersion value	0.548

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	71
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.3555
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.57
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.78
upper limit	0.65
Variability estimate	Standard error of the mean
Dispersion value	0.607

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	71
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2485
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.51
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.36
upper limit	1.38
Variability estimate	Standard error of the mean
Dispersion value	0.436

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	71
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0866
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.76
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.11
upper limit	1.63
Variability estimate	Standard error of the mean
Dispersion value	0.435

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	71
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4101
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.42
upper limit	1.01
Variability estimate	Standard error of the mean
Dispersion value	0.356

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	71
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0237
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.07
upper limit	0.94
Variability estimate	Standard error of the mean
Dispersion value	0.217

Secondary: Change from baseline in Spinal Mobility (Chest Expansion) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point title	Change from baseline in Spinal Mobility (Chest Expansion) at Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point description:

Chest expansion (measured in centimetres (cm), is defined as difference in thoracic circumference during full expiration versus full inspiration. This was measured at 4th intercostal space. Difference between maximal inspiration and expiration of two attempts was recorded. Better of two attempts was used to calculate chest expansion which was defined to be greater than or equal to 0 cm with no defined maximum/upper limit. Greater chest circumference corresponds to higher score indicated more spinal mobility/better health status (measured as Chest Expansion in cm). FAS: included all subjects who were randomised to the study and received at least one dose of the randomised investigational product (i.e., tofacitinib or placebo). Here, on-drug data was used and missing response was not imputed. Here "number of subjects analysed" signifies subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 2, 4, 8, 12, 16, 24, 32, 40 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	136		
Units: Centimetre				
least squares mean (standard error)				
Week 2	0.22 (± 0.084)	-0.09 (± 0.083)		
Week 4	0.25 (± 0.094)	-0.07 (± 0.094)		
Week 8	0.46 (± 0.114)	0.22 (± 0.114)		
Week 12	0.57 (± 0.102)	0.25 (± 0.102)		
Week 16	0.59 (± 0.128)	0.38 (± 0.127)		
Week 24	0.62 (± 0.133)	0.63 (± 0.132)		
Week 32	0.61 (± 0.149)	0.71 (± 0.148)		
Week 40	0.75 (± 0.132)	0.68 (± 0.131)		
Week 48	0.50 (± 0.127)	0.47 (± 0.125)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 2: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0043
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.31
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.1
upper limit	0.52
Variability estimate	Standard error of the mean
Dispersion value	0.107

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 4: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0072
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.33
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.09
upper limit	0.56
Variability estimate	Standard error of the mean
Dispersion value	0.121

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 8: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1101
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.23
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.05
upper limit	0.52
Variability estimate	Standard error of the mean
Dispersion value	0.146

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description: Week 16: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2032
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.21
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.11
upper limit	0.53
Variability estimate	Standard error of the mean
Dispersion value	0.162

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 12: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0147
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.32
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.06
upper limit	0.58
Variability estimate	Standard error of the mean
Dispersion value	0.13

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 24: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.9345
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.01
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.34
upper limit	0.32
Variability estimate	Standard error of the mean
Dispersion value	0.168

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 32: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.5968
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.47
upper limit	0.27
Variability estimate	Standard error of the mean
Dispersion value	0.187

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 40: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.7047
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.26
upper limit	0.39
Variability estimate	Standard error of the mean
Dispersion value	0.166

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	268
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.807
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.04
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.27
upper limit	0.35
Variability estimate	Standard error of the mean
Dispersion value	0.157

Secondary: Change From Baseline in EuroQol 5 Dimensions 3 Levels (EQ-5D-3L) Score at Weeks 16 and 48

End point title	Change From Baseline in EuroQol 5 Dimensions 3 Levels (EQ-5D-3L) Score at Weeks 16 and 48

End point description:

EQ-5D-3L, a health profile questionnaire was used to assess quality of life along 5 dimensions. Subjects rated 5 aspects of health (mobility, self-care, usual activities, pain/discomfort, and anxiety/depression) by choosing from 3 answering options (1=no problems; 2=some problems; 3=extreme problems). The mean of the summed score ranged from 1 to 3 with "1" corresponding to no problems and "3" corresponding to severe problems in the 5 dimensions, where higher score indicates more severe problems. FAS: included all subjects who were randomised to the study and received at least one dose of the randomised investigational product (i.e., tofacitinib or placebo). Here, on-drug data was used and missing response was not imputed. Here "number of subjects analysed" signifies subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 16 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	129	131		
Units: Units on a scale				
least squares mean (standard error)				
Week 16: Mobility	-0.23 (± 0.044)	-0.06 (± 0.044)		
Week 16: Self-Care	-0.21 (± 0.043)	-0.20 (± 0.043)		
Week 16: Usual Activities	-0.18 (± 0.046)	-0.09 (± 0.046)		
Week 16: Pain/Discomfort	-0.30 (± 0.036)	-0.12 (± 0.036)		
Week 16: Anxiety/Depression	-0.11 (± 0.048)	-0.10 (± 0.048)		
Week 48: Mobility	-0.32 (± 0.051)	-0.26 (± 0.050)		

Week 48: Self-Care	-0.33 (± 0.048)	-0.33 (± 0.047)		
Week 48: Usual Activities	-0.32 (± 0.053)	-0.34 (± 0.053)		
Week 48: Pain/Discomfort	-0.37 (± 0.047)	-0.36 (± 0.047)		
Week 48: Anxiety/Depression	-0.17 (± 0.054)	-0.21 (± 0.053)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16, Mobility: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.003
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	-0.17
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.28
upper limit	-0.06
Variability estimate	Standard error of the mean
Dispersion value	0.055

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16, Self-Care: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.897
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	-0.01
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.11
upper limit	0.1

Variability estimate	Standard error of the mean
Dispersion value	0.055

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16, Usual Activities: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Placebo Then Tofacitinib v Tofacitinib
Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1437
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	-0.09
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.2
upper limit	0.03
Variability estimate	Standard error of the mean
Dispersion value	0.058

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16, Pain/Discomfort: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	-0.18
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.27
upper limit	-0.09
Variability estimate	Standard error of the mean
Dispersion value	0.046

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16, Anxiety/Depression: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.8445
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	-0.01
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.13
upper limit	0.11
Variability estimate	Standard error of the mean
Dispersion value	0.061

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Mobility: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.3473
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.19
upper limit	0.07
Variability estimate	Standard error of the mean
Dispersion value	0.064

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Self-Care: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.9834
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.12
upper limit	0.12
Variability estimate	Standard error of the mean
Dispersion value	0.059

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Usual Activities: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.7364
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.02
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.11
upper limit	0.15
Variability estimate	Standard error of the mean
Dispersion value	0.066

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Pain/Discomfort: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.8075
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-0.01
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.13
upper limit	0.1
Variability estimate	Standard error of the mean
Dispersion value	0.059

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48, Anxiety/Depression: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.5461
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	0.04
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.09
upper limit	0.17
Variability estimate	Standard error of the mean
Dispersion value	0.067

Secondary: Change From Baseline in EuroQol Visual Analogue Scale (EQ-VAS) Score (mm) at Weeks 16 and 48

End point title	Change From Baseline in EuroQol Visual Analogue Scale (EQ-VAS) Score (mm) at Weeks 16 and 48

End point description:

EQ-5D-3L, a health profile questionnaire was used to assess quality of life along 5 dimensions. Its second part included EQ-VAS. EQ-VAS recorded the subject’s self-rated health on a VAS ranging from 0 mm (worst imaginable health state) to 100 mm (best imaginable health state), with higher scores indicating better health state. FAS: included all subjects who were randomised to the study and received at least one dose of the randomised investigational product (i.e., tofacitinib or placebo). Here, on-drug data was used and missing response was not imputed. Here "number of subjects analysed" signifies subjects analysed for this end point and 'n'= subject analysed for this end point for specified time point.

End point type	Secondary

End point timeframe:
Baseline, Weeks 16 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	129	130		
Units: Millimetre (mm)				
least squares mean (standard error)				
Week 16 (n=128, 130)	13.00 (± 1.840)	2.89 (± 1.840)		
Week 48 (n=129, 130)	20.64 (± 1.879)	18.00 (± 1.862)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2608
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	2.63
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.97
upper limit	7.24
Variability estimate	Standard error of the mean
Dispersion value	2.337

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 16: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib

Number of subjects included in analysis	259
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	10.11
Confidence interval	
level	95 %
sides	2-sided
lower limit	5.52
upper limit	14.7
Variability estimate	Standard error of the mean
Dispersion value	2.331

Secondary: Change From Baseline in Work Productivity and Activity Impairment (WPAI): Percent Work Time Missed Due to Health Problem at Weeks 16 and 48

End point title	Change From Baseline in Work Productivity and Activity Impairment (WPAI): Percent Work Time Missed Due to Health Problem at Weeks 16 and 48

End point description:

WPAI: 6-item questionnaire assessed degree to which AS affect work productivity,regular activities over past 7 day.Questions:Q1=currently employed;Q2=hours missed due to health problems;Q3=hours missed due to other reasons;Q4=hours actually worked;Q5=degree health affected productivity while working(0-10 scale,high number=less productivity);Q6=degree health affected regular activities(0-10 scale,high number=greater impairment of regular activities).Percent work time missed due to health problem was subscale,calculated: Q2/(Q2+Q4) for those who were currently employed.Subscale score expressed as impairment percentage(range:0-100%),high number=greater impairment,less productivity.FAS:included all subject randomised to study,received at least 1 dose of tofacitinib or placebo.On-drug data used,MR not imputed. Here, number of subjects analysed signifies subject analysed for this endpoint and 'n'= subject analysed for this end point for specified time point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 16 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	77	85		
Units: Units on a scale				
least squares mean (standard error)				
Week 16 (n=74, 81)	-3.65 (± 2.659)	0.88 (± 2.622)		
Week 48 (n=77, 85)	-8.10 (± 2.136)	-5.79 (± 2.047)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	162
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.3651
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-2.31
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.34
upper limit	2.72
Variability estimate	Standard error of the mean
Dispersion value	2.54

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	162
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.1784
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	-4.53
Confidence interval	
level	95 %
sides	2-sided
lower limit	-11.15
upper limit	2.09
Variability estimate	Standard error of the mean
Dispersion value	3.35

Secondary: Change From Baseline in Work Productivity and Activity Impairment (WPAI): Percent Impairment While Working due to Health Problem at Weeks 16 and 48

End point title	Change From Baseline in Work Productivity and Activity Impairment (WPAI): Percent Impairment While Working due to Health Problem at Weeks 16 and 48

End point description:

WPAI:6-item questionnaire to assess degree to which AS affect work productivity,regular activities in past 7 day.Questions:Q1=currently employed;Q2=hours missed due to health problems;Q3=hours missed due to other reasons;Q4=hours actually worked;Q5=degree health affected productivity while working(0-10 scale,high number=less productivity);Q6=degree health affected regular activities(0-10 scale,high number=greater impairment of regular activities).% Impairment while working due to Health Problem was subscale,calculated:Q5/10 for those who were currently employed,actually worked in past 7 days.Subscale score expressed as impairment %(range: 0-100%)where high number=greater impairment,less productivity. FAS:include all subject randomise to study,receive at least 1 dose of tofacitinib/placebo.On-drug data used,MR not imputed. Here, number of subjects analysed signifies subjects analysed for this end point and 'n'= subject analysed for this end point for specified time point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 16 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	75	82		
Units: Units on a scale				
least squares mean (standard error)				
Week 16 (n=71, 77)	-19.83 (± 2.274)	-6.94 (± 2.303)		
Week 48 (n=75, 82)	-25.35 (± 2.769)	-23.00 (± 2.656)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	157
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	-12.89
Confidence interval	
level	95 %
sides	2-sided
lower limit	-18.59
upper limit	-7.19
Variability estimate	Standard error of the mean
Dispersion value	2.884

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	157
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.4788
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-2.36
Confidence interval	
level	95 %
sides	2-sided
lower limit	-8.92
upper limit	4.21
Variability estimate	Standard error of the mean
Dispersion value	3.318

Secondary: Change From Baseline in Work Productivity and Activity Impairment (WPAI): Percent Overall Work Impairment due to Health Problem at Weeks 16 and 48

End point title	Change From Baseline in Work Productivity and Activity Impairment (WPAI): Percent Overall Work Impairment due to Health Problem at Weeks 16 and 48

End point description:

WPAI:6-item questionnaire to assess degree to which AS affect work productivity,regular activities in past 7 day.Questions:Q1=currently employed;Q2=hours missed due to health problems;Q3=hours missed due to other reasons;Q4=hours actually worked;Q5=degree health affected productivity while working(0-10 scale,high number=less productivity);Q6=degree health affected regular activities(0-10 scale,high number=greater impairment of regular activities).% overall work impairment due to health problem was subscale, calculated:Q2/(Q2+Q4)+[(1-Q2/(Q2+Q4))×(Q5/10)] for those who were currently employed.Subscale score expressed as impairment %(range:0-100%) where higher number=greater impairment. FAS:include all subject randomise to study,receive at least 1 dose of tofacitinib/placebo.On-drug data used,MR not imputed. Here, number of subjects analysed signifies subjects analysed for this end point and 'n'= subject analysed for this end point for specified time point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 16 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	75	82		
Units: Units on a scale				
least squares mean (standard error)				
Week 16 (n=71, 76)	-21.49 (± 2.508)	-7.64 (± 2.559)		

Week 48 (n=75, 82)	-27.63 (± 3.005)	-23.22 (± 2.890)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 16: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	157
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	-13.85
Confidence interval	
level	95 %
sides	2-sided
lower limit	-20.18
upper limit	-7.52
Variability estimate	Standard error of the mean
Dispersion value	3.202

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib
Statistical analysis description:	
Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.	
Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	157
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.2244
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-4.41
Confidence interval	
level	95 %
sides	2-sided
lower limit	-11.56
upper limit	2.74
Variability estimate	Standard error of the mean
Dispersion value	3.613

Secondary: Change From Baseline in Work Productivity and Activity Impairment (WPAI): Percent Activity Impairment due to Health Problem at Weeks 16 and 48

End point title	Change From Baseline in Work Productivity and Activity Impairment (WPAI): Percent Activity Impairment due to Health Problem at Weeks 16 and 48

End point description:

WPAI:6-item questionnaire to assess degree to which AS affect work productivity,regular activities in past 7 day.Questions:Q1=currently employed;Q2=hours missed due to health problems;Q3=hours missed due to other reasons;Q4=hours actually worked;Q5=degree health affected productivity while working(0-10 scale,high number=less productivity);Q6=degree health affected regular activities(0-10 scale,high number=greater impairment of regular activities)% activity impairment due to health problem was subscale,calculated:Q6/10 for all respondents.Subscale score expressed as impairment %(range: 0-100%) where higher numbers=greater impairment. FAS:include all subject randomise to study,receive at least 1 dose of tofacitinib/placebo.On-drug data used,MR not imputed. Here, "number of subject analysed" signify subjects analysed for this end point.

End point type	Secondary

End point timeframe:

Baseline, Weeks 16 and 48

End point values	Tofacitinib	Placebo Then Tofacitinib		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	129	131		
Units: Units on a scale				
least squares mean (standard error)				
Week 16	-19.03 (± 1.969)	-5.63 (± 1.968)		
Week 48	-27.37 (± 2.339)	-19.77 (± 2.310)		

Statistical analyses

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 16: Analysis performed using ANCOVA model which included fixed effects of treatment group, stratification factor derived from clinical database, and baseline value.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.0001
Method	ANCOVA
Parameter estimate	LS mean difference
Point estimate	-13.4

Confidence interval	
level	95 %
sides	2-sided
lower limit	-18.3
upper limit	-8.5
Variability estimate	Standard error of the mean
Dispersion value	2.488

Statistical analysis title	Tofacitinib vs Placebo Then Tofacitinib

Statistical analysis description:

Week 48: Analysis performed using MMRM which included fixed effect of treatment group, visit, and treatment-group by visit interaction, stratification factor derived from clinical database, stratification-factor by visit interaction, baseline value, and baseline-value by visit interaction.

Comparison groups	Tofacitinib v Placebo Then Tofacitinib
Number of subjects included in analysis	260
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.0095
Method	Mixed models analysis
Parameter estimate	LS mean difference
Point estimate	-7.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-13.32
upper limit	-1.88
Variability estimate	Standard error of the mean
Dispersion value	2.905

Adverse events

Adverse events information

Timeframe for reporting adverse events:

For the first 2 arms: (tofacitinib and Placebo [up to Week 16]): Baseline to Week 16 and for the next 2 arms (tofacitinib and placebo then tofacitinib [Day 1 to Week 48]): Baseline to Week 48

Adverse event reporting additional description:

Same event may appear as AE, serious AE, what is presented are distinct events. Event may be categorized as serious in 1, and non-serious in another or 1 subject may have experienced both. Safety analysis set. Non-serious AEs are reported as >5% as cut off.

Assessment type	Non-systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	.23.0

Reporting groups

Reporting group title	Tofacitinib: Up to Week 16

Reporting group description:

Subjects received tofacitinib 5 mg tablets twice daily for 16 weeks.

Reporting group title	Placebo: Up to Week 16

Reporting group description:

Subjects received tofacitinib matching placebo tablets, twice daily for 16 weeks.

Reporting group title	Tofacitinib: Day 1 to Week 48

Reporting group description:

Subjects received tofacitinib 5 mg tablets twice daily for 48 weeks.

Reporting group title	Placebo Then Tofacitinib: Day 1 to Week 48

Reporting group description:

Subjects received tofacitinib matching placebo tablets, twice daily for 16 weeks followed by tofacitinib tablets 5 mg, twice daily for next 32 weeks (i.e. up to Week 48).

Serious adverse events	Tofacitinib: Up to Week 16	Placebo: Up to Week 16	Tofacitinib: Day 1 to Week 48
Total subjects affected by serious adverse events			
subjects affected / exposed	2 / 133 (1.50%)	1 / 136 (0.74%)	7 / 133 (5.26%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Injury, poisoning and procedural complications			
Rib fracture			
subjects affected / exposed	0 / 133 (0.00%)	0 / 136 (0.00%)	1 / 133 (0.75%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Thoracic vertebral fracture			

subjects affected / exposed	0 / 133 (0.00%)	1 / 136 (0.74%)	0 / 133 (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
Nervous system disorders			
Migraine			
subjects affected / exposed	0 / 133 (0.00%)	0 / 136 (0.00%)	1 / 133 (0.75%)
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			
Condition aggravated			
subjects affected / exposed	0 / 133 (0.00%)	1 / 136 (0.74%)	0 / 133 (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
Ear and labyrinth disorders			
Hypoacusis			
subjects affected / exposed	1 / 133 (0.75%)	0 / 136 (0.00%)	1 / 133 (0.75%)
occurrences causally related to treatment / all	1 / 1	0 / 0	1 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrointestinal disorders			
Abdominal adhesions			
subjects affected / exposed	0 / 133 (0.00%)	0 / 136 (0.00%)	1 / 133 (0.75%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory, thoracic and mediastinal disorders			
Pneumothorax			
subjects affected / exposed	0 / 133 (0.00%)	0 / 136 (0.00%)	1 / 133 (0.75%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Hepatobiliary disorders			
Hyperplastic cholecystopathy			
subjects affected / exposed	0 / 133 (0.00%)	0 / 136 (0.00%)	1 / 133 (0.75%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Skin and subcutaneous tissue disorders			

Subcutaneous emphysema			
subjects affected / exposed	0 / 133 (0.00%)	0 / 136 (0.00%)	1 / 133 (0.75%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Renal and urinary disorders			
Ureterolithiasis			
subjects affected / exposed	0 / 133 (0.00%)	0 / 136 (0.00%)	1 / 133 (0.75%)
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			
Spinal osteoarthritis			
subjects affected / exposed	0 / 133 (0.00%)	0 / 136 (0.00%)	0 / 133 (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
Infections and infestations			
Meningitis aseptic			
subjects affected / exposed	1 / 133 (0.75%)	0 / 136 (0.00%)	1 / 133 (0.75%)
occurrences causally related to treatment / all	1 / 1	0 / 0	1 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Placebo Then Tofacitinib: Day 1 to Week 48		
Total subjects affected by serious adverse events			
subjects affected / exposed	2 / 136 (1.47%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Injury, poisoning and procedural complications			
Rib fracture			
subjects affected / exposed	0 / 136 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Thoracic vertebral fracture			
subjects affected / exposed	1 / 136 (0.74%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

Nervous system disorders			
Migraine			
subjects affected / exposed	0 / 136 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
General disorders and administration site conditions			
Condition aggravated			
subjects affected / exposed	1 / 136 (0.74%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Ear and labyrinth disorders			
Hypoacusis			
subjects affected / exposed	0 / 136 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			
Abdominal adhesions			
subjects affected / exposed	0 / 136 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Respiratory, thoracic and mediastinal disorders			
Pneumothorax			
subjects affected / exposed	0 / 136 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Hepatobiliary disorders			
Hyperplastic cholecystopathy			
subjects affected / exposed	0 / 136 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Skin and subcutaneous tissue disorders			
Subcutaneous emphysema			
subjects affected / exposed	0 / 136 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		

Renal and urinary disorders			
Ureterolithiasis			
subjects affected / exposed	0 / 136 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Musculoskeletal and connective tissue disorders			
Spinal osteoarthritis			
subjects affected / exposed	1 / 136 (0.74%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Meningitis aseptic			
subjects affected / exposed	0 / 136 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		

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

Non-serious adverse events	Tofacitinib: Up to Week 16	Placebo: Up to Week 16	Tofacitinib: Day 1 to Week 48
Total subjects affected by non-serious adverse events			
subjects affected / exposed	23 / 133 (17.29%)	26 / 136 (19.12%)	51 / 133 (38.35%)
Investigations			
Alanine aminotransferase increased			
subjects affected / exposed	0 / 133 (0.00%)	0 / 136 (0.00%)	8 / 133 (6.02%)
occurrences (all)	0	0	15
Protein urine present			
subjects affected / exposed	0 / 133 (0.00%)	0 / 136 (0.00%)	8 / 133 (6.02%)
occurrences (all)	0	0	9
Nervous system disorders			
Headache			
subjects affected / exposed	0 / 133 (0.00%)	0 / 136 (0.00%)	5 / 133 (3.76%)
occurrences (all)	0	0	5
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	0 / 133 (0.00%)	0 / 136 (0.00%)	10 / 133 (7.52%)
occurrences (all)	0	0	10

Abdominal pain upper			
subjects affected / exposed	0 / 133 (0.00%)	0 / 136 (0.00%)	2 / 133 (1.50%)
occurrences (all)	0	0	2
Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	1 / 133 (0.75%)	8 / 136 (5.88%)	2 / 133 (1.50%)
occurrences (all)	1	9	2
Infections and infestations			
Upper respiratory tract infection			
subjects affected / exposed	14 / 133 (10.53%)	10 / 136 (7.35%)	21 / 133 (15.79%)
occurrences (all)	17	10	28
Nasopharyngitis			
subjects affected / exposed	9 / 133 (6.77%)	10 / 136 (7.35%)	11 / 133 (8.27%)
occurrences (all)	11	12	14

Non-serious adverse events	Placebo Then Tofacitinib: Day 1 to Week 48		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	52 / 136 (38.24%)		
Investigations			
Alanine aminotransferase increased			
subjects affected / exposed	2 / 136 (1.47%)		
occurrences (all)	2		
Protein urine present			
subjects affected / exposed	4 / 136 (2.94%)		
occurrences (all)	5		
Nervous system disorders			
Headache			
subjects affected / exposed	7 / 136 (5.15%)		
occurrences (all)	7		
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	8 / 136 (5.88%)		
occurrences (all)	8		
Abdominal pain upper			
subjects affected / exposed	7 / 136 (5.15%)		
occurrences (all)	8		
Musculoskeletal and connective tissue			

disorders Arthralgia subjects affected / exposed occurrences (all)	9 / 136 (6.62%) 12		
Infections and infestations Upper respiratory tract infection subjects affected / exposed occurrences (all) Nasopharyngitis subjects affected / exposed occurrences (all)	18 / 136 (13.24%) 23 17 / 136 (12.50%) 23		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
03 April 2020	This global amendment incorporates venous thromboembolism (VTE) risk factor checks. Pfizer has determined that VTE is identified as an important identified risk/dose dependent adverse drug reaction for tofacitinib.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported