Clinical trial results:
A Phase 2 Study of INCMGA00012 in Participants With Squamous Carcinoma of the Anal Canal Who Have Progressed Following Platinum-Based Chemotherapy (POD1UM 202)

Summary

EudraCT number	2018-002070-51
Trial protocol	NL BE GB DE IT DK FR
Global end of trial date	10 November 2021

Results information

Result version number	v1 (current)
This version publication date	15 December 2022
First version publication date	15 December 2022

Trial information

Trial identification

Sponsor protocol code	INCMGA 0012-202

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	Incyte Corporation
Sponsor organisation address	1801 Augustine Cutoff Drive, Wilmington, United States, 19803
Public contact	Study Director, Incyte Corporation, 1 8554633463, medinfo@incyte.com
Scientific contact	Study Director, Incyte Corporation, 1 8554633463, medinfo@incyte.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	10 November 2021
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	10 November 2021
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The purpose of this study was to assess the efficacy of retifanlimab in participants with locally advanced or metastatic squamous carcinoma of the anal canal (SCAC) who progressed after platinum-based chemotherapy.

Protection of trial subjects:

This study was to be performed in accordance with ethical principles that have their origin in the Declaration of Helsinki and conducted in adherence to the study Protocol, applicable Good Clinical Practices, and applicable laws and country-specific regulations in which the study was being conducted. The research in the Netherlands was carried out in accordance with the Declaration of Helsinki (Brazil, 2013) and the WMO (Medical Research Involving Human Subjects Act).

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	08 October 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	Belgium: 4
Country: Number of subjects enrolled	Germany: 2
Country: Number of subjects enrolled	Denmark: 7
Country: Number of subjects enrolled	Spain: 10
Country: Number of subjects enrolled	France: 32
Country: Number of subjects enrolled	United Kingdom: 19
Country: Number of subjects enrolled	Italy: 10
Country: Number of subjects enrolled	Norway: 4
Country: Number of subjects enrolled	United States: 6
Worldwide total number of subjects	94
EEA total number of subjects	69

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37	0

wk	
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)	48
From 65 to 84 years	45
85 years and over	1

Subject disposition

Recruitment

Recruitment details:

This study was conducted at 40 study centers: 32 in France, 19 in the United Kingdom, 10 in Italy, 10 in Spain, 7 in Denmark, 6 in the United States, 4 in Norway, 4 in Belgium, and 2 in Germany.

Pre-assignment

Screening details:

A total of 94 participants with locally advanced or metastatic squamous carcinoma of the anal canal were enrolled in the study and treated with retifanlimab.

Period 1

Period 1 title	Overall Study (overall period)
Is this the baseline period?	Yes
Allocation method	Non-randomised - controlled
Blinding used	Not blinded

Arms

Arm title	Retifanlimab 500 mg

Arm description:

Participants received retifanlimab 500 milligrams (mg) intravenously every 4 weeks (Q4W).

Arm type	Experimental
Investigational medicinal product name	retifanlimab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for infusion
Routes of administration	Intravenous use

Dosage and administration details:

retifanlimab 500 milligrams (mg) every 4 weeks (Q4W)

Number of subjects in period 1	Retifanlimab 500 mg
Started	94
Completed	17
Not completed	77
Adverse event, serious fatal	70
Lost to follow-up	7

Baseline characteristics

Reporting groups	
Reporting group title	Retifanlimab 500 mg
Reporting group description:	
Participants received retifanlimab 500 milligrams (mg) intravenously every 4 weeks (Q4W).	

Reporting group values	Retifanlimab 500 mg	Total	
Number of subjects	94	94	
Age categorical Units: Subjects			
In utero	0	0	
Preterm newborn infants (gestational age < 37 wks)	0	0	
Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	0	0	
Adolescents (12-17 years)	0	0	
Adults (18-64 years)	48	48	
From 65-84 years	45	45	
85 years and over	1	1	
Age Continuous Units: Years			
arithmetic mean	62.1		
standard deviation	± 11.44	-	
Sex: Female, Male Units:			
Female	61	61	
Male	33	33	
Ethnicity, Customized Units: Subjects			
Hispanic or Latino	4	4	
Not Hispanic or Latino	49	49	
Not Reported	33	33	
Unknown	4	4	
Missing	4	4	
Race, Customized Units: Subjects			
White/Caucasian	72	72	
Black/African-American	1	1	
Captured as "Other"	4	4	
Missing	6	6	
Not Reported	11	11	

End points

End points reporting groups

Reporting group title	Retifanlimab 500 mg

Reporting group description:

Participants received retifanlimab 500 milligrams (mg) intravenously every 4 weeks (Q4W).

Primary: Objective response rate (ORR)

End point title	Objective response rate (ORR)[1]

End point description:

ORR was defined as the percentage of participants with a best overall response of complete response (CR) or partial response (PR), per Response Evaluation Criteria in Solid Tumors (RECIST) version 1.1 (v1.1), as assessed by independent central radiographic (ICR) review, at any post-Baseline visit until new anti-cancer therapy or first Progressive Disease. CR: disappearance of all target and non-target lesions and no appearance of any new lesions. Any pathological lymph nodes (whether target or non-target) must have a reduction in the short axis to <10 millimeters (mm). PR: complete disappearance or at least a 30% decrease in the sum of the diameters of target lesions, taking as a reference the baseline sum diameters, no new lesions, and no progression of non-target lesions.

End point type	Primary

End point timeframe:

Cycle 1 Day 1, and every 4 weeks throughout the study, up to approximately 24 months

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Statistical analysis was not conducted.

End point values	Retifanlimab 500 mg			
Subject group type	Reporting group			
Number of subjects analysed	94[2]			
Units: percentage of participants				
number (not applicable)	13.8			

Notes:

[2] - Full Analysis Set: all participants enrolled in the study who received at least 1 dose of study drug

Statistical analyses

No statistical analyses for this end point

Secondary: Duration of response (DOR)

End point title	Duration of response (DOR)

End point description:

DOR was defined as the time from an initial objective response (CR or PR) per RECIST v1.1 until the first observation of documented disease progression (PD), as determined by ICR, or death due to any cause. CR: disappearance of all target and non-target lesions and no appearance of any new lesions. Any pathological lymph nodes (whether target or non-target) must have a reduction in the short axis to <10 mm. PR: complete disappearance or at least a 30% decrease in the sum of the diameters of target lesions, taking as a reference the baseline sum diameters, no new lesions, and no progression of non-target lesions. PD: progression of a target or non-target lesion or presence of a new lesion. 9999=the upper limit of the confidence interval was not estimable because too few participants had disease progression or died. The 95% confidence interval was calculated using the Brookmeyer and Crowley's method and Klein and Moeschberger's method with log-log transformation.

End point type	Secondary

End point timeframe:

up to 18.2 months

End point values	Retifanlimab 500 mg			
Subject group type	Reporting group			
Number of subjects analysed	13[3]			
Units: months				
median (confidence interval 95%)	9.5 (4.4 to 9999)			

Notes:

[3] - Full Analysis Set. Participants with confirmed CR or PR by ICR per RECIST v1.1 were analyzed.

Statistical analyses

No statistical analyses for this end point

Secondary: Disease control rate (DCR)

End point title	Disease control rate (DCR)

End point description:

DCR was defined as the percentage of participants with a confirmed overall response of CR, PR, or stable disease (SD), per RECIST v1.1, at any post-baseline visit until the first progressive disease (PD) or new anti-cancer therapy. CR: disappearance of all target and non-target lesions and no appearance of any new lesions. Any pathological lymph nodes (whether target or non-target) must have a reduction in the short axis to <10 mm. PR: complete disappearance or at least a 30% decrease in the sum of the diameters of target lesions, taking as a reference the baseline sum diameters, no new lesions, and no progression of non-target lesions. PD: progression of a target or non-target lesion or presence of a new lesion. SD: no change in target lesions to qualify for CR, PR, or PD. Confidence intervals were calculated based on the exact method for binomial distributions.

End point type	Secondary

End point timeframe:

Cycle 1 Day 1, and every 4 weeks throughout the study, up to approximately 24 months

End point values	Retifanlimab 500 mg			
Subject group type	Reporting group			
Number of subjects analysed	94[4]			
Units: percentage of participants				
number (confidence interval 95%)	48.9 (38.5 to 59.5)			

Notes:

[4] - Full Analysis Set

Statistical analyses

No statistical analyses for this end point

Secondary: Progression-free survival (PFS)

End point title	Progression-free survival (PFS)

End point description:

According to RECIST 1.1, PFS was defined as the length of time from the initial infusion of study drug until the earliest date of disease progression, as determined by ICR, or death due to any cause, if occurring sooner than progression. Median PFS time was estimated using the Kaplan-Meier method. The confidence interval for median PFS time was calculated using the method of Brookmeyer and Crowley.

End point type	Secondary

End point timeframe:

up to 16.8 months

End point values	Retifanlimab 500 mg			
Subject group type	Reporting group			
Number of subjects analysed	94[5]			
Units: months				
median (confidence interval 95%)	2.3 (1.9 to 3.6)			

Notes:

[5] - Full Analysis Set

Statistical analyses

No statistical analyses for this end point

Secondary: Overall survival

End point title	Overall survival

End point description:

Overall survival was defined as the time in months between the first dose date (Day 1) and the date of death due to any cause. Median survival time was estimated using the Kaplan-Meier method. The confidence interval for median survival time was calculated using the method of Brookmeyer and Crowley.

End point type	Secondary

End point timeframe:

up to 28.2 months

End point values	Retifanlimab 500 mg			
Subject group type	Reporting group			
Number of subjects analysed	94[6]			
Units: months				
median (confidence interval 95%)	13.4 (10.1 to 15.0)			

Notes:

[6] - Full Analysis Set

Statistical analyses

No statistical analyses for this end point

Secondary: Cmax of retifanlimab

End point title	Cmax of retifanlimab

End point description:

Cmax was defined as the maximum observed plasma concentration. Pharmacokinetic (PK) Evaluable Population: all participants who received at least 1 dose of study drug and provided a Baseline and at least 1 postdose serum sample (1 PK measurement).

End point type	Secondary

End point timeframe:

pre-infusion on Day 1 of Cycles 1, 2, 4, 6, and 7; 10 minutes and 4 hours post-infusion on Day 1 of Cycles 1 and 6

End point values	Retifanlimab 500 mg			
Subject group type	Reporting group			
Number of subjects analysed	92[7]			
Units: milligrams per Liter (mg/L)				
arithmetic mean (standard deviation)	151 (± 27.6)			

Notes:

[7] - PK Evaluable Population

Statistical analyses

No statistical analyses for this end point

Secondary: Number of participants with treatment-emergent adverse events (TEAEs)

End point title	Number of participants with treatment-emergent adverse events (TEAEs)

End point description:

An adverse event (AE) was defined as any untoward medical occurrence associated with the use of a drug in humans, whether or not considered drug-related. An AE could have been any unfavorable and unintended sign (including an abnormal laboratory finding), symptom, or disease (new or exacerbated) temporally associated with the use of the study drug. A TEAE was defined as any AE either reported for the first time or the worsening of a pre-existing event after the first dose of retifanlimab and within 90 days of the last administration of retifanlimab.

End point type	Secondary

End point timeframe:

up to 913 days

End point values	Retifanlimab 500 mg			
Subject group type	Reporting group			
Number of subjects analysed	94[8]			
Units: participants	90			

Notes:

[8] - Safety Evaluable Population: all enrolled participants who received at least 1 dose of study drug

Statistical analyses

No statistical analyses for this end point

Secondary: tmax of retifanlimab

End point title	tmax of retifanlimab

End point description:

tmax was defined as the time to the maximum concentration.

End point type	Secondary

End point timeframe:

pre-infusion on Day 1 of Cycles 1, 2, 4, 6, and 7; 10 minutes and 4 hours post-infusion on Day 1 of Cycles 1 and 6

End point values	Retifanlimab 500 mg			
Subject group type	Reporting group			
Number of subjects analysed	92[9]			
Units: hours				
arithmetic mean (standard deviation)	1.20 (± 0.305)			

Notes:

[9] - PK Evaluable Population

Statistical analyses

No statistical analyses for this end point

Secondary: Cmin of retifanlimab

End point title	Cmin of retifanlimab

End point description:

Cmin was defined as the minimum observed plasma concentration over the dose interval.

End point type	Secondary

End point timeframe:

pre-infusion on Day 1 of Cycles 1, 2, 4, 6, and 7; 10 minutes and 4 hours post-infusion on Day 1 of Cycles 1 and 6

End point values	Retifanlimab 500 mg			
Subject group type	Reporting group			
Number of subjects analysed	92[10]			
Units: mg/L				
arithmetic mean (standard deviation)	22.4 (± 7.87)			

Notes:

[10] - PK Evaluable Population

Statistical analyses

No statistical analyses for this end point

Secondary: AUC0-t of retifanlimab

End point title	AUC0-t of retifanlimab

End point description:

AUC0-t was defined as the area under the plasma concentration-time curve from time = 0 to the last measurable concentration at time = t.

End point type	Secondary

End point timeframe:

pre-infusion on Day 1 of Cycles 1, 2, 4, 6, and 7; 10 minutes and 4 hours post-infusion on Day 1 of Cycles 1 and 6

End point values	Retifanlimab 500 mg			
Subject group type	Reporting group			
Number of subjects analysed	92[11]			
Units: day*mg/L				
arithmetic mean (standard deviation)	1950 (± 594)			

Notes:

[11] - PK Evaluable Population

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

up to 913 days

Adverse event reporting additional description:

Treatment-emergent adverse events (TEAEs), defined as any AEs either reported for the first time or the worsening of pre-existing events after the first dose of retifanlimab and within 90 days of the last administration of retifanlimab, have been reported.

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	23.1

Reporting groups

Reporting group title	Retifanlimab 500 mg

Reporting group description:

Participants received retifanlimab 500 milligrams (mg) intravenously every 4 weeks (Q4W).

Serious adverse events	Retifanlimab 500 mg		
Total subjects affected by serious adverse events			
subjects affected / exposed	50 / 94 (53.19%)		
number of deaths (all causes)	60		
number of deaths resulting from adverse events	10		
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Diffuse large B-cell lymphoma			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Pancreatic carcinoma			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 1		
Lymphangiosis carcinomatosa			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	1 / 1		
Transitional cell carcinoma			

subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Tumour embolism				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 1			
Tumour pain				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Vascular disorders				
Thrombosis				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Venous thrombosis limb				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
General disorders and administration site conditions				
Asthenia				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Catheter site pain				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
General physical health deterioration				
subjects affected / exposed	3 / 94 (3.19%)			
occurrences causally related to treatment / all	0 / 3			
deaths causally related to treatment / all	0 / 0			

Inadequate analgesia				
subjects affected / exposed	2 / 94 (2.13%)			
occurrences causally related to treatment / all	0 / 2			
deaths causally related to treatment / all	0 / 0			
Pain				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Pyrexia				
subjects affected / exposed	3 / 94 (3.19%)			
occurrences causally related to treatment / all	0 / 3			
deaths causally related to treatment / all	0 / 0			
Reproductive system and breast disorders				
Pelvic pain				
subjects affected / exposed	3 / 94 (3.19%)			
occurrences causally related to treatment / all	0 / 3			
deaths causally related to treatment / all	0 / 0			
Respiratory, thoracic and mediastinal disorders				
Acute respiratory failure				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Dyspnoea				
subjects affected / exposed	2 / 94 (2.13%)			
occurrences causally related to treatment / all	0 / 2			
deaths causally related to treatment / all	0 / 0			
Interstitial lung disease				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 1			
Pleural effusion				

subjects affected / exposed	2 / 94 (2.13%)			
occurrences causally related to treatment / all	0 / 3			
deaths causally related to treatment / all	0 / 1			
Respiratory failure				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Psychiatric disorders				
Mental status changes				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Investigations				
Body temperature increased				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Blood bilirubin increased				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Weight decreased				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Injury, poisoning and procedural complications				
Femur fracture				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 1			
Fall				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			

Nervous system disorders			
Cognitive disorder			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Coma hepatic			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Headache			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Blood and lymphatic system disorders			
Anaemia			
subjects affected / exposed	4 / 94 (4.26%)		
occurrences causally related to treatment / all	0 / 4		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			
Abdominal pain			
subjects affected / exposed	4 / 94 (4.26%)		
occurrences causally related to treatment / all	1 / 4		
deaths causally related to treatment / all	0 / 0		
Colonic fistula			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Constipation			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Diarrhoea			

subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Gastric ulcer				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Ileus				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Immune-mediated enterocolitis				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	1 / 1			
deaths causally related to treatment / all	0 / 0			
Intestinal obstruction				
subjects affected / exposed	2 / 94 (2.13%)			
occurrences causally related to treatment / all	0 / 2			
deaths causally related to treatment / all	0 / 0			
Large intestinal obstruction				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Nausea				
subjects affected / exposed	2 / 94 (2.13%)			
occurrences causally related to treatment / all	0 / 4			
deaths causally related to treatment / all	0 / 0			
Proctalgia				
subjects affected / exposed	2 / 94 (2.13%)			
occurrences causally related to treatment / all	0 / 3			
deaths causally related to treatment / all	0 / 0			
Proctitis haemorrhagic				

subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Rectal haemorrhage				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Superior mesenteric artery syndrome				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Vomiting				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Hepatobiliary disorders				
Cholecystitis				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Cholangitis				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Cholecystitis acute				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Hepatitis				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	1 / 1			
deaths causally related to treatment / all	0 / 0			
Skin and subcutaneous tissue disorders				

Purpura			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Renal and urinary disorders			
Acute kidney injury			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Haematuria			
subjects affected / exposed	2 / 94 (2.13%)		
occurrences causally related to treatment / all	0 / 2		
deaths causally related to treatment / all	0 / 0		
Hydronephrosis			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Ureteric compression			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Urinary retention			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Endocrine disorders			
Adrenal insufficiency			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	0 / 0		
Musculoskeletal and connective tissue disorders			
Back pain			

subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Bone pain				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Flank pain				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Infections and infestations				
Anal abscess				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Cellulitis				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Device related infection				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Gastroenteritis				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Herpes zoster				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	1 / 1			
deaths causally related to treatment / all	0 / 0			
Lyme disease				

subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Pelvic infection				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 1			
Pneumonia				
subjects affected / exposed	2 / 94 (2.13%)			
occurrences causally related to treatment / all	0 / 2			
deaths causally related to treatment / all	0 / 0			
Pneumocystis jirovecii pneumonia				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 1			
Peritonitis				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 1			
Pseudomonas infection				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Sepsis				
subjects affected / exposed	2 / 94 (2.13%)			
occurrences causally related to treatment / all	0 / 2			
deaths causally related to treatment / all	0 / 0			
Skin infection				
subjects affected / exposed	1 / 94 (1.06%)			
occurrences causally related to treatment / all	0 / 1			
deaths causally related to treatment / all	0 / 0			
Stoma site infection				

subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Urinary tract infection			
subjects affected / exposed	4 / 94 (4.26%)		
occurrences causally related to treatment / all	0 / 4		
deaths causally related to treatment / all	0 / 0		
Metabolism and nutrition disorders			
Dehydration			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Decreased appetite			
subjects affected / exposed	1 / 94 (1.06%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Hypercalcaemia			
subjects affected / exposed	2 / 94 (2.13%)		
occurrences causally related to treatment / all	0 / 2		
deaths causally related to treatment / all	0 / 1		

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

Non-serious adverse events	Retifanlimab 500 mg		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	79 / 94 (84.04%)		
Investigations			
Aspartate aminotransferase increased			
subjects affected / exposed	7 / 94 (7.45%)		
occurrences (all)	7		
Weight decreased			
subjects affected / exposed	8 / 94 (8.51%)		
occurrences (all)	8		
Nervous system disorders			

Headache			
subjects affected / exposed	8 / 94 (8.51%)		
occurrences (all)	9		
Blood and lymphatic system disorders			
Anaemia			
subjects affected / exposed	15 / 94 (15.96%)		
occurrences (all)	19		
General disorders and administration site conditions			
Asthenia			
subjects affected / exposed	22 / 94 (23.40%)		
occurrences (all)	31		
Fatigue			
subjects affected / exposed	17 / 94 (18.09%)		
occurrences (all)	21		
Pyrexia			
subjects affected / exposed	10 / 94 (10.64%)		
occurrences (all)	18		
Gastrointestinal disorders			
Abdominal pain			
subjects affected / exposed	7 / 94 (7.45%)		
occurrences (all)	7		
Constipation			
subjects affected / exposed	12 / 94 (12.77%)		
occurrences (all)	14		
Diarrhoea			
subjects affected / exposed	20 / 94 (21.28%)		
occurrences (all)	32		
Proctalgia			
subjects affected / exposed	7 / 94 (7.45%)		
occurrences (all)	7		
Nausea			
subjects affected / exposed	15 / 94 (15.96%)		
occurrences (all)	21		
Vomiting			
subjects affected / exposed	14 / 94 (14.89%)		
occurrences (all)	18		

Rectal haemorrhage subjects affected / exposed occurrences (all)	9 / 94 (9.57%) 17		
Respiratory, thoracic and mediastinal disorders Cough subjects affected / exposed occurrences (all) Dyspnoea subjects affected / exposed occurrences (all)	 11 / 94 (11.70%) 13 11 / 94 (11.70%) 13		
Skin and subcutaneous tissue disorders Rash subjects affected / exposed occurrences (all) Pruritus subjects affected / exposed occurrences (all)	 5 / 94 (5.32%) 6 11 / 94 (11.70%) 14		
Psychiatric disorders Insomnia subjects affected / exposed occurrences (all)	 6 / 94 (6.38%) 6		
Endocrine disorders Hypothyroidism subjects affected / exposed occurrences (all)	 9 / 94 (9.57%) 10		
Musculoskeletal and connective tissue disorders Back pain subjects affected / exposed occurrences (all) Arthralgia subjects affected / exposed occurrences (all)	 8 / 94 (8.51%) 9 8 / 94 (8.51%) 10		
Infections and infestations Cystitis subjects affected / exposed occurrences (all) Urinary tract infection	 5 / 94 (5.32%) 5 		

subjects affected / exposed occurrences (all)	7 / 94 (7.45%) 9		
Metabolism and nutrition disorders Decreased appetite subjects affected / exposed occurrences (all) Hypokalaemia subjects affected / exposed occurrences (all)	 12 / 94 (12.77%) 12 5 / 94 (5.32%) 5		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
06 August 2018	The primary purpose of this amendment was to address comments regarding the design of the study.
04 October 2018	The purpose of this amendment was to address comments regarding the design of the study.
21 March 2019	The protocol was amended to add a translational substudy and to remove the requirement for premedication prophylaxis.
08 July 2019	The protocol was amended to clarify eligibility criteria.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported

Online references

http://www.ncbi.nlm.nih.gov/pubmed/35816951