



Clinical trial results:

A phase II trial of Cabozantinib for hepatocellular carcinoma patients intolerant to sorafenib treatment or first line treatment different to sorafenib. (ACTION trial)

Summary

EudraCT number	2019-004991-20
Trial protocol	ES
Global end of trial date	22 February 2023

Results information

Result version number	v1 (current)
This version publication date	15 February 2024
First version publication date	15 February 2024

Trial information

Trial identification

Sponsor protocol code	ACTION
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Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT04316182
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	FRCB - IDIBAPS (Fundació de Recerca Clínic Barcelona - Institut d'Investigacions Biomèdiques August Pi i Sunyer) - Hospital Clinic de Barcelona
Sponsor organisation address	C/Roselló149-153, Barcelona, Spain, 08026
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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	29 November 2023
Is this the analysis of the primary completion data?	No
Global end of trial reached?	Yes
Global end of trial date	22 February 2023
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

To evaluate the safety profile established by rate of adverse events (AE) with Common Terminology Criteria for Adverse Events (CTCAE) ≥ 3 excluding palmar-plantar erythrodysthesia, rate of related-AEs and rate of death. The rate of AEs leading to treatment discontinuation.

Protection of trial subjects:

All patients including in Safety set signed informed consent and meet the selection criteria.

To ensure patient safety, the following procedures were performed at all study visits during treatment: Physical examination, ECOG performance status, Vital signs, Assessment of AEs/SAEs, Concomitant medications, Serum chemistry, Hematology, Coagulation (PT, INR, PTT) and Urinalysis.

Subject protection was ensured by following high medical and ethical standards in accordance with the principles laid down in the Declaration of Helsinki, and that are consistent with Good Clinical Practice and applicable regulations.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	29 July 2020
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	Spain: 24
Worldwide total number of subjects	24
EEA total number of subjects	24

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	7

From 65 to 84 years	16
85 years and over	1

Subject disposition

Recruitment

Recruitment details:

The screened patients were 29 and 4 of them were screening failure. From all included subjects (25), 24 (96%) were included in Safety population. The excluded patient did not receive the study medication.

Pre-assignment

Screening details:

The screened patients were 29 and 4 of them were screening failure: one due to adverse event, one due to Investigator decision and two patients do not meet eligibility criteria. One patient did not receive the study treatment.

Period 1

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

Arms

Arm title	Cabozantinib
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Arm description:

Cabozantinib 60 mg/day.

Arm type	Experimental
Investigational medicinal product name	Cabozantinib
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule, hard
Routes of administration	Oral use

Dosage and administration details:

Cabozantinib was initiated at full dose (60 mg/day) and the dose was modified upon development of adverse events according to the study protocol and continued until symptomatic tumor progression, unacceptable adverse events, patient decision or death.

Number of subjects in period 1	Cabozantinib
Started	24
Completed	24

Baseline characteristics

Reporting groups

Reporting group title	Overall Study
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Reporting group description: -

Reporting group values	Overall Study	Total	
Number of subjects	24	24	
Age categorical			
Units: Subjects			
Adults (18-64 years)	7	7	
From 65-84 years	16	16	
85 years and over	1	1	
Age continuous			
Units: years			
arithmetic mean	69.67		
standard deviation	± 10.37	-	
Gender categorical			
Units: Subjects			
Female	9	9	
Male	15	15	
Race			
Units: Subjects			
Black or African American	1	1	
Latin or Hispanic	1	1	
White	22	22	
Tumor burden			
Units: Subjects			
Extrahepatic spread	3	3	
Multinodular	14	14	
Portal invasion	4	4	
Single or up to 3 nodules >= 3cm	3	3	
Cirrhosis			
Units: Subjects			
Yes	19	19	
No	5	5	
Vascular Invasion			
Units: Subjects			
Yes	8	8	
No	16	16	
ECOG			
Units: Subjects			
ECOG 0	20	20	
ECOG 1	4	4	
First line treatment			
Units: Subjects			
Atezolizumab+bevacizumab	3	3	
Lenvatinib	1	1	

Nivolumab+ipilimumab	1	1	
Sorafenib	18	18	
Tislelizumab	1	1	
Worst type of progression Units: Subjects			
Extrahepatic growth	2	2	
Intrahepatic growth	8	8	
New extrahepatic lesion	1	1	
New intrahepatic lesion	11	11	
NA	2	2	
Worst first progression pattern Units: Subjects			
Extrahepatic growth	2	2	
Intrahepatic growth	7	7	
New extrahepatic lesion	3	3	
New intrahepatic lesion	10	10	
NA	2	2	

Subject analysis sets

Subject analysis set title	Overall
Subject analysis set type	Full analysis
Subject analysis set description: Patients who received study intervention	

Reporting group values	Overall		
Number of subjects	24		
Age categorical Units: Subjects			
Adults (18-64 years)	7		
From 65-84 years	16		
85 years and over	1		
Age continuous Units: years			
arithmetic mean	69.67		
standard deviation	± 10.37		
Gender categorical Units: Subjects			
Female	9		
Male	15		
Race Units: Subjects			
Black or African American	1		
Latin or Hispanic	1		
White	22		
Tumor burden Units: Subjects			
Extrahepatic spread	3		
Multinodular	14		
Portal invasion	4		
Single or up to 3 nodules >= 3cm	3		

Cirrhosis			
Units: Subjects			
Yes	19		
No	5		
Vascular Invasion			
Units: Subjects			
Yes	8		
No	16		
ECOG			
Units: Subjects			
ECOG 0	20		
ECOG 1	4		
First line treatment			
Units: Subjects			
Atezolizumab+bevacizumab	3		
Lenvatinib	1		
Nivolumab+ipilimumab	1		
Sorafenib	18		
Tislelizumab	1		
Worst type of progression			
Units: Subjects			
Extrahepatic growth	2		
Intrahepatic growth	8		
New extrahepatic lesion	1		
New intrahepatic lesion	11		
NA	2		
Worst first progression pattern			
Units: Subjects			
Extrahepatic growth	2		
Intrahepatic growth	7		
New extrahepatic lesion	3		
New intrahepatic lesion	10		
NA	2		

End points

End points reporting groups

Reporting group title	Cabozantinib
Reporting group description:	Cabozantinib 60 mg/day.
Subject analysis set title	Overall
Subject analysis set type	Full analysis
Subject analysis set description:	Patients who received study intervention

Primary: Adverse event (CTCAE) ≥ 3 excluding palmar-plantar erythrodysthesia

End point title	Adverse event (CTCAE) ≥ 3 excluding palmar-plantar erythrodysthesia ^[1]
End point description:	Patients with grade ≥ 3 adverse events, excluding palmar-plantar erythrodysthesia.
End point type	Primary
End point timeframe:	At every study visit until end of treatment.

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: Only descriptive analysis performed.

End point values	Overall			
Subject group type	Subject analysis set			
Number of subjects analysed	24			
Units: Patients				
Yes	16			
No	8			

Statistical analyses

No statistical analyses for this end point

Primary: Treatment-related adverse events

End point title	Treatment-related adverse events ^[2]
End point description:	Patients with related adverse events.
End point type	Primary
End point timeframe:	At every study visit until end of treatment.

Notes:

[2] - 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: Only descriptive analysis performed.

End point values	Overall			
Subject group type	Subject analysis set			
Number of subjects analysed	24			
Units: Patients				
Yes	24			
No	0			

Statistical analyses

No statistical analyses for this end point

Primary: Adverse event resulting in death.

End point title | Adverse event resulting in death.^[3]

End point description:

Patients with adverse events resulting in death.

End point type | Primary

End point timeframe:

At every study visit until end of treatment.

Notes:

[3] - 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: Only descriptive analysis performed.

End point values	Overall			
Subject group type	Subject analysis set			
Number of subjects analysed	24			
Units: Patients				
Yes	0			
No	24			

Statistical analyses

No statistical analyses for this end point

Primary: Adverse events leading to discontinuation

End point title | Adverse events leading to discontinuation^[4]

End point description:

Patients with adverse events leading to discontinuation.

End point type | Primary

End point timeframe:

At every study visit until end of treatment.

Notes:

[4] - 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: Only descriptive analysis performed.

End point values	Overall			
Subject group type	Subject analysis set			
Number of subjects analysed	24			
Units: Patients				
Yes	3			
No	21			

Statistical analyses

No statistical analyses for this end point

Secondary: Overall Survival

End point title	Overall Survival
End point description:	The time from the inclusion date to death from any cause.
End point type	Secondary
End point timeframe:	Every 3 months.

End point values	Overall			
Subject group type	Subject analysis set			
Number of subjects analysed	24			
Units: month				
median (confidence interval 95%)	11 (8 to 20)			

Statistical analyses

No statistical analyses for this end point

Secondary: Objective response rate

End point title	Objective response rate
End point description:	Defined as a partial or complete response at any time, i.e. the best response from inclusion along all follow-up.
End point type	Secondary
End point timeframe:	Every 8 weeks.

End point values	Overall			
Subject group type	Subject analysis set			
Number of subjects analysed	24			
Units: Percentage				
number (confidence interval 95%)				
Yes	8.3 (1.0 to 27.0)			
No	91.7 (73.0 to 99.0)			

Statistical analyses

No statistical analyses for this end point

Secondary: Time to progression

End point title	Time to progression
End point description:	The time from the inclusion date to progression.
End point type	Secondary
End point timeframe:	Every 8 weeks.

End point values	Overall			
Subject group type	Subject analysis set			
Number of subjects analysed	24			
Units: month				
median (confidence interval 95%)	6 (3 to 8)			

Statistical analyses

No statistical analyses for this end point

Secondary: Pattern of progression

End point title	Pattern of progression
End point description:	Patterns of progression: - Intrahepatic growth (IHG): increased size of intrahepatic target lesions or progression of intrahepatic "non-target" lesions at baseline. - New intrahepatic lesion (NIH): emergence of new intrahepatic lesions - Extrahepatic growth (EHG): increased size of extrahepatic target lesions, progression of extrahepatic "non-target" lesions at baseline or progression of the existing vascular invasion. - New extrahepatic lesion (NEL): emergence of new extrahepatic lesions or emergence of vascular invasion.
End point type	Secondary
End point timeframe:	Every 8 weeks

End point values	Overall			
Subject group type	Subject analysis set			
Number of subjects analysed	24			
Units: Percentage				
Intrahepatic growth (IHG)	44			
New intrahepatic lesion (NIH)	22			
Extrahepatic growth (EHG)	11			
New extrahepatic lesion (NEH)	22			

Statistical analyses

No statistical analyses for this end point

Secondary: Rate of patients who develop new extra-hepatic spread

End point title	Rate of patients who develop new extra-hepatic spread
End point description:	Rate of patients who develop new extra-hepatic spread
End point type	Secondary
End point timeframe:	Every 8 weeks

End point values	Overall			
Subject group type	Subject analysis set			
Number of subjects analysed	18 ^[5]			
Units: Percentage				
Yes	22			
No	78			

Notes:

[5] - 5 patients (of 23 progressed) died due to PD without having a corresponding radiological evaluation.

Statistical analyses

No statistical analyses for this end point

Secondary: Post-progression survival

End point title	Post-progression survival
End point description:	For those patients who progressed, the time from the progression date to death from any cause.
End point type	Secondary
End point timeframe:	Every 3 months

End point values	Overall			
Subject group type	Subject analysis set			
Number of subjects analysed	24			
Units: month				
median (confidence interval 95%)	5 (2 to 9999)			

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Adverse events were evaluated at each study visit. AEs occurring after the subject signed the informed consent form until the end of the safety follow-up period were collected.

Assessment type	Systematic
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Dictionary used

Dictionary name	MedDRA
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Dictionary version	21.1
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Reporting groups

Reporting group title	Overall
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Reporting group description:

Screened patients who meet selection criteria and received study medication.

Serious adverse events	Overall		
Total subjects affected by serious adverse events			
subjects affected / exposed	8 / 24 (33.33%)		
number of deaths (all causes)	15		
number of deaths resulting from adverse events	0		
General disorders and administration site conditions			
Pyrexia			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			
Upper gastrointestinal haemorrhage			
subjects affected / exposed	2 / 24 (8.33%)		
occurrences causally related to treatment / all	0 / 2		
deaths causally related to treatment / all	0 / 0		
Rectal haemorrhage			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Intestinal ischaemia			

subjects affected / exposed	1 / 24 (4.17%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Hepatobiliary disorders			
Cholecystitis acute			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Musculoskeletal and connective tissue disorders			
Back pain			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Peritonitis bacterial			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Skin infection			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Pneumonia			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
COVID-19			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

Frequency threshold for reporting non-serious adverse events: 1 %

Non-serious adverse events	Overall		
Total subjects affected by non-serious adverse events subjects affected / exposed	24 / 24 (100.00%)		
Neoplasms benign, malignant and unspecified (incl cysts and polyps) Basal cell carcinoma subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Vascular disorders Epistaxis subjects affected / exposed occurrences (all) Haematoma subjects affected / exposed occurrences (all) Hypertension subjects affected / exposed occurrences (all) Orthostatic hypotension subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 2 1 / 24 (4.17%) 1 16 / 24 (66.67%) 27 1 / 24 (4.17%) 1		
General disorders and administration site conditions Asthenia subjects affected / exposed occurrences (all) Chills subjects affected / exposed occurrences (all) Discomfort subjects affected / exposed occurrences (all) Fatigue subjects affected / exposed occurrences (all) Granuloma subjects affected / exposed occurrences (all)	6 / 24 (25.00%) 21 1 / 24 (4.17%) 1 2 / 24 (8.33%) 2 12 / 24 (50.00%) 17 1 / 24 (4.17%) 1		

Mucosal inflammation			
subjects affected / exposed	3 / 24 (12.50%)		
occurrences (all)	3		
Oedema			
subjects affected / exposed	2 / 24 (8.33%)		
occurrences (all)	2		
Oedema peripheral			
subjects affected / exposed	2 / 24 (8.33%)		
occurrences (all)	3		
Pain			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Pyrexia			
subjects affected / exposed	2 / 24 (8.33%)		
occurrences (all)	2		
Decreased appetite			
subjects affected / exposed	2 / 24 (8.33%)		
occurrences (all)	2		
Non-cardiac chest pain			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Illness			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Respiratory, thoracic and mediastinal disorders			
Aphonia			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Cough			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Dysphonia			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Dyspnoea			

subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Productive cough subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Psychiatric disorders Confusional state subjects affected / exposed occurrences (all)	2 / 24 (8.33%) 2		
Investigations Alanine aminotransferase increased subjects affected / exposed occurrences (all)	5 / 24 (20.83%) 16		
Amylase increased subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Aspartate aminotransferase increased subjects affected / exposed occurrences (all)	6 / 24 (25.00%) 13		
Blood bilirubin increased subjects affected / exposed occurrences (all)	2 / 24 (8.33%) 3		
Blood lactate dehydrogenase increased subjects affected / exposed occurrences (all)	4 / 24 (16.67%) 4		
Blood pressure ambulatory increased subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 2		
Blood thyroid stimulating hormone increased subjects affected / exposed occurrences (all)	2 / 24 (8.33%) 2		
Gamma-glutamyltransferase increased subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		

Haemoglobin decreased subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Haemoglobin increased subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Platelet count decreased subjects affected / exposed occurrences (all)	2 / 24 (8.33%) 2		
Protein albumin ratio subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Weight decreased subjects affected / exposed occurrences (all)	2 / 24 (8.33%) 2		
Transaminases increased subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Blood alkaline phosphatase increased subjects affected / exposed occurrences (all)	2 / 24 (8.33%) 5		
Injury, poisoning and procedural complications			
Fall subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Ligament sprain subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 2		
Contusion subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Wound subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Joint injury			

<p>subjects affected / exposed occurrences (all)</p> <p>Limb injury subjects affected / exposed occurrences (all)</p> <p>Eyelid injury subjects affected / exposed occurrences (all)</p>	<p>2 / 24 (8.33%) 2</p> <p>1 / 24 (4.17%) 3</p> <p>1 / 24 (4.17%) 1</p>		
<p>Nervous system disorders</p> <p>Dizziness subjects affected / exposed occurrences (all)</p> <p>Encephalopathy subjects affected / exposed occurrences (all)</p> <p>Headache subjects affected / exposed occurrences (all)</p> <p>Hepatic encephalopathy subjects affected / exposed occurrences (all)</p> <p>Insomnia subjects affected / exposed occurrences (all)</p> <p>Radiculopathy subjects affected / exposed occurrences (all)</p> <p>Tension headache subjects affected / exposed occurrences (all)</p>	<p>2 / 24 (8.33%) 2</p> <p>1 / 24 (4.17%) 1</p> <p>2 / 24 (8.33%) 3</p> <p>1 / 24 (4.17%) 1</p> <p>1 / 24 (4.17%) 1</p> <p>1 / 24 (4.17%) 1</p> <p>1 / 24 (4.17%) 1</p> <p>2 / 24 (8.33%) 2</p>		
<p>Blood and lymphatic system disorders</p> <p>Anaemia subjects affected / exposed occurrences (all)</p> <p>Leukopenia</p>	<p>1 / 24 (4.17%) 1</p>		

<p>subjects affected / exposed occurrences (all)</p> <p>Neutropenia subjects affected / exposed occurrences (all)</p> <p>Pancytopenia subjects affected / exposed occurrences (all)</p>	<p>1 / 24 (4.17%) 1</p> <p>1 / 24 (4.17%) 1</p> <p>1 / 24 (4.17%) 4</p>		
<p>Ear and labyrinth disorders Ear pain subjects affected / exposed occurrences (all)</p>	<p>1 / 24 (4.17%) 1</p>		
<p>Eye disorders Erythema of eyelid subjects affected / exposed occurrences (all)</p>	<p>1 / 24 (4.17%) 1</p>		
<p>Gastrointestinal disorders Abdominal discomfort subjects affected / exposed occurrences (all)</p> <p>Abdominal pain subjects affected / exposed occurrences (all)</p> <p>Abdominal pain upper subjects affected / exposed occurrences (all)</p> <p>Ascites subjects affected / exposed occurrences (all)</p> <p>Constipation subjects affected / exposed occurrences (all)</p> <p>Diarrhoea subjects affected / exposed occurrences (all)</p> <p>Dysgeusia</p>	<p>2 / 24 (8.33%) 2</p> <p>4 / 24 (16.67%) 6</p> <p>5 / 24 (20.83%) 6</p> <p>3 / 24 (12.50%) 3</p> <p>6 / 24 (25.00%) 7</p> <p>12 / 24 (50.00%) 31</p>		

subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Dyspepsia			
subjects affected / exposed	5 / 24 (20.83%)		
occurrences (all)	6		
Dysphagia			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Faeces pale			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Gastrointestinal haemorrhage			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Haemorrhoids			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Intestinal ischaemia			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Nausea			
subjects affected / exposed	5 / 24 (20.83%)		
occurrences (all)	6		
Odynophagia			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Oesophagitis			
subjects affected / exposed	2 / 24 (8.33%)		
occurrences (all)	2		
Rectal haemorrhage			
subjects affected / exposed	2 / 24 (8.33%)		
occurrences (all)	4		
Tooth loss			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Vomiting			

subjects affected / exposed occurrences (all)	3 / 24 (12.50%) 5		
Oral dysaesthesia subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Oral disorder subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Pancreatic failure subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Hepatobiliary disorders Hyperbilirubinaemia subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 2		
Hypoalbuminaemia subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Jaundice subjects affected / exposed occurrences (all)	2 / 24 (8.33%) 2		
Skin and subcutaneous tissue disorders Alopecia subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Erythema subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Hair colour changes subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Hyperhidrosis subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Hyperkeratosis			

subjects affected / exposed	2 / 24 (8.33%)		
occurrences (all)	2		
Palmar-plantar erythrodysesthesia syndrome			
subjects affected / exposed	15 / 24 (62.50%)		
occurrences (all)	46		
Prurigo			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
pruritus			
subjects affected / exposed	4 / 24 (16.67%)		
occurrences (all)	7		
Rash			
subjects affected / exposed	3 / 24 (12.50%)		
occurrences (all)	3		
Skin disorder			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Skin lesion			
subjects affected / exposed	2 / 24 (8.33%)		
occurrences (all)	3		
Cellulite			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Sensitive skin			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Anal rash			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Renal and urinary disorders			
Dysuria			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Urinary retention			

subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Endocrine disorders Hypothyroidism subjects affected / exposed occurrences (all)	4 / 24 (16.67%) 4		
Musculoskeletal and connective tissue disorders Arthralgia subjects affected / exposed occurrences (all)	3 / 24 (12.50%) 3		
Back pain subjects affected / exposed occurrences (all)	3 / 24 (12.50%) 7		
Muscle spasms subjects affected / exposed occurrences (all)	2 / 24 (8.33%) 2		
Myalgia subjects affected / exposed occurrences (all)	2 / 24 (8.33%) 2		
Pain in extremity subjects affected / exposed occurrences (all)	2 / 24 (8.33%) 2		
Torticollis subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 2		
Sacral pain subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 2		
Musculoskeletal chest pain subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 2		
Musculoskeletal discomfort subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 2		
Spinal pain			

subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Infections and infestations			
Cystitis			
subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Gingivitis			
subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Hordeolum			
subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Oral candidiasis			
subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Orchitis			
subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Pneumonia			
subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Postoperative wound infection			
subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Pyuria			
subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Sinusitis			
subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		
Urinary tract infection			
subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 2		
Oropharyngeal candidiasis			
subjects affected / exposed occurrences (all)	1 / 24 (4.17%) 1		

Peri-implantitis			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
COVID-19			
subjects affected / exposed	4 / 24 (16.67%)		
occurrences (all)	4		
Metabolism and nutrition disorders			
Hypocalcaemia			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Hypokalaemia			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Hypomagnesaemia			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	2		
Hyponatraemia			
subjects affected / exposed	2 / 24 (8.33%)		
occurrences (all)	3		
Hypophosphataemia			
subjects affected / exposed	2 / 24 (8.33%)		
occurrences (all)	3		
Early satiety			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		
Decreased appetite			
subjects affected / exposed	3 / 24 (12.50%)		
occurrences (all)	8		
Hypophagia			
subjects affected / exposed	1 / 24 (4.17%)		
occurrences (all)	1		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
27 August 2020	Amendment 1: This amendment includes 2 new Quality of life Questionnaires, the alert card and patient diary.
15 July 2021	Amendment 2: This amendment extends the trial recruitment period for 1 year, updates the Reference Safety Information with Cabozantinib Investigator Brochure version 16.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported