Clinical trial results:
Predictive value of in-vitro testing anti-cancer therapy sensitivity on tumorspheres from patients with metastatic colorectal cancer

Summary

EudraCT number	2017-000456-26
Trial protocol	DK
Global end of trial date	23 August 2021

Results information

Result version number	v1 (current)
This version publication date	30 December 2022
First version publication date	30 December 2022

Trial information

Trial identification

Sponsor protocol code	Tumorspheres_Colrec

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03251612
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Vejle Hospital
Sponsor organisation address	Beriderbakken 4, Vejle, Denmark,
Public contact	Clinical Trial Unit, Vejle Hospital, kfe.onko@rsyd.dk
Scientific contact	Clinical Trial Unit, Vejle Hospital, kfe.onko@rsyd.dk

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	31 January 2022
Is this the analysis of the primary completion data?	Yes
Primary completion date	23 August 2021
Global end of trial reached?	Yes
Global end of trial date	23 August 2021
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The purpose of the present study is to investigate the benefit to patients with metastatic colorectal cancer of post standard anti-cancer therapy based on pretreatment in-vitro testing of drug sensitivity to patient-derived tumorspheres.

Protection of trial subjects:

Antiemetics and other supportive treatment as necessary

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	25 September 2017
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Denmark: 34
Worldwide total number of subjects	34
EEA total number of subjects	34

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)	20
From 65 to 84 years	14
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Patients were enrolled from September 2017 to September 2020.

Pre-assignment

Screening details:

Adult patients were screened for inclusion if they had progressive metastatic colorectal cancer and had already been exposed to, or not considered candidates for, available therapies including fluoroupyrimidine-, oxaliplatin- and irinotecan-based chemotherapies, anti-VEGF agents and, if RAS/RAF wild-type, anti-EGFR agents.

Pre-assignment period milestones

Number of subjects started	34
Number of subjects completed	34

Period 1

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

Arms

Arm title	Precision cohort

Arm description:

Patients with one histopathologic tumor type, colorectal adenocarcinoma, are subdivided into treatment groups based on functional characteristics.

Arm type	Experimental
Investigational medicinal product name	Targeted treatment
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder and solvent for concentrate for solution for infusion
Routes of administration	Intravenous use

Dosage and administration details:

Drugs were given based on sentivity analysis of individual patient-derived tumoroids.

The combination of vinorelbine and capecitabine was given in 3-weekly cycles as oral vinorelbine 80 mg/m2 (after a first cycle at 60 mg/m2) on day 1 and day 8 together with capecitabine 1000 mg/m2 (750 if age ≥ 65 years) twice daily on days 1-14 in 3-weekly cycles.

Gemcitabine 1000 mg/m2 i.v. was given in 2-weekly cycles on day 1 together with capecitabine 1000 mg/m2 twice daily on days 1-7.

Temozolomide 150 mg/m2 on days 1–5 was given with irinotecan 100 mg/m2 on days 1 and 15 every 28 days.

The following drugs were given according to SPC:
Regorafenib
Olaparib
TAS-102
Sorafenib
Epirubicin
FOLFIRI

Number of subjects in period 1	Precision cohort
Started	34
Completed	34

Baseline characteristics

Reporting groups	
Reporting group title	Overall trial

Reporting group description: -

Reporting group values	Overall trial	Total	
Number of subjects	34	34	
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)	20	20	
From 65-84 years	14	14	
85 years and over	0	0	
Gender categorical Units: Subjects			
Female	20	20	
Male	14	14	

End points

End points reporting groups

Reporting group title	Precision cohort

Reporting group description:

Patients with one histopathologic tumor type, colorectal adenocarcinoma, are subdivided into treatment groups based on functional characteristics.

Primary: PFS eight weeks (time frame 42-63 days) after start of treatment

End point title	PFS eight weeks (time frame 42-63 days) after start of treatment[1]

End point description:

End point type	Primary

End point timeframe:

8 weeks after start 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: This is a single arm study. There is no intra-study comparison.

End point values	Precision cohort			
Subject group type	Reporting group			
Number of subjects analysed	34			
Units: Number	34			

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information[1]

Timeframe for reporting adverse events:

Every 4 weeks

Assessment type	Systematic

Dictionary used

Dictionary name	CTCAE
Dictionary version	4

Reporting groups

Reporting group title	Toxicity

Reporting group description: -

Notes:

[1] - There are no non-serious adverse events recorded for these results. It is expected that there will be at least one non-serious adverse event reported.
Justification: Non-serious adverse events were not collected.

Serious adverse events	Toxicity		
Total subjects affected by serious adverse events			
subjects affected / exposed	8 / 34 (23.53%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
General disorders and administration site conditions			
cancer progression			
subjects affected / exposed	1 / 34 (2.94%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			
Constipation			
subjects affected / exposed	1 / 34 (2.94%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Ileus			
subjects affected / exposed	1 / 34 (2.94%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
abdominal			
subjects affected / exposed	1 / 34 (2.94%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

Obstruction	Additional description: Obstruction of stent		
subjects affected / exposed	1 / 34 (2.94%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Skin and subcutaneous tissue disorders			
Rash maculo-papular			
subjects affected / exposed	1 / 34 (2.94%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	0 / 0		
Renal and urinary disorders			
Hydronephrosis			
subjects affected / exposed	1 / 34 (2.94%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Infection			
subjects affected / exposed	4 / 34 (11.76%)		
occurrences causally related to treatment / all	1 / 4		
deaths causally related to treatment / all	0 / 0		

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

Non-serious adverse events	Toxicity		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 34 (0.00%)		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported