



## Clinical trial results:

### **Pancreatic Resectability in Cancers with Known Limited Extension (PRICKLE) - A single-centre phase 2a study of Gemcitabine plus Nab-paclitaxel for borderline unresectable locally advanced pancreatic cancer.**

#### **Summary**

EudraCT number	2013-004200-19
Trial protocol	GB
Global end of trial date	26 October 2017

#### **Results information**

Result version number	v1 (current)
This version publication date	11 November 2018
First version publication date	11 November 2018

#### **Trial information**

##### **Trial identification**

Sponsor protocol code	PRICKLE
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##### **Additional study identifiers**

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT02124369
WHO universal trial number (UTN)	-

Notes:

##### **Sponsors**

Sponsor organisation name	Cambridge University Hospitals NHS Foundation Trust
Sponsor organisation address	Hills Road, Cambridge, United Kingdom, CB2 0QQ
Public contact	Carrie Bayliss, Cambridge University Hospitals NHS Foundation Trust, 44 01223348158, cctu@addenbrookes.nhs.uk
Scientific contact	Carrie Bayliss, Cambridge University Hospitals NHS Foundation Trust, 44 01223348158, cctu@addenbrookes.nhs.uk

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:

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**Results analysis stage**

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Analysis stage	Final
Date of interim/final analysis	01 October 2018
Is this the analysis of the primary completion data?	Yes
Primary completion date	26 October 2017
Global end of trial reached?	Yes
Global end of trial date	26 October 2017
Was the trial ended prematurely?	Yes

Notes:

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**General information about the trial**

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Main objective of the trial:

To determine efficacy of ABX/GEM in downstaging "category 2" borderline unresectable locally advanced pancreatic cancer tumours sufficiently to enable resection.

Protection of trial subjects:

The study was approved by a Research Ethics Committee and received authorisation from the Medicines and Healthcare Products Regulatory Authority. Patients received verbal and written information prior consenting to the trial, and had time to consider their participation and opportunity to ask questions. Consenting patients had a series of screening tests and exams to ensure they were suitable for the study and it was safe to proceed. Enrolment into the trial did not affect any aspect of the surgical treatment plan and each patient was treated according to local practice. On registration to the trial patients were allocated a unique reference number to be used on all data and samples sent to the sponsor, which allowed their personal data to remain anonymous. Only the patients direct care team had access to their recruited participants personal data during the trial. Patients could be withdrawn at any time, at the patient's request or at the clinician's decision. Adverse events were monitored on an ongoing basis, with end of study assessments performed approx 28-35 days after the end of study drug administration or post-surgery.

Background therapy:

N/A

Evidence for comparator:

N/A

Actual start date of recruitment	12 August 2014
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

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**Population of trial subjects**

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**Subjects enrolled per country**

Country: Number of subjects enrolled	United Kingdom: 9
Worldwide total number of subjects	9
EEA total number of subjects	9

Notes:

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**Subjects enrolled per age group**

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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)	4
From 65 to 84 years	5
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details:

The sample size for the trial was a maximum of 17 evaluable patients. 9 patients were registered into the trial.

### Pre-assignment

Screening details:

Patients aged  $\geq 18$  years with borderline unresectable advanced pancreatic adenocarcinoma, defined as Cat 2 by central radiological review, histological/cytological diagnosis, ECOG PS 0/1. A total of 23 patients consented to the trial, with 14 screen failures. The first patient was enrolled on 27 Aug 2014 and the last enrolled on 10 Apr 2017.

### Pre-assignment period milestones

Number of subjects started	23 <sup>[1]</sup>
Number of subjects completed	9

### Pre-assignment subject non-completion reasons

Reason: Number of subjects	Did not meet Inc/Exc criteria: 14
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Notes:

[1] - The number of subjects reported to have started the pre-assignment period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.

Justification: Worldwide number enrolled in the trial is the number of consented subjects meeting inclusion/exclusion criteria and who were registered into the study to receive treatment. The number of subjects who started the pre-assignment period is the number of consented subjects screened for eligibility.

### Period 1

Period 1 title	On study
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

### Arms

Arm title	Abraxane & Gemcitabine treatment
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Arm description:

Patients received Abraxane followed by Gemcitabine in combination for up to 6 cycles. Evaluation of resectability was performed after 3 cycles. If operable after 3 cycles, appropriate surgical intervention was undertaken. 1 further cycle of treatment could be administered whilst patients awaited surgery. If patients were considered unresectable after 3 cycles, a further 3 cycles of treatment was given before final re-evaluation of resectability. Patients received up to a maximum of 6 cycles.

Arm type	Experimental
Investigational medicinal product name	Abraxane
Investigational medicinal product code	
Other name	nab-paclitaxel
Pharmaceutical forms	Powder for solution for infusion
Routes of administration	Intravenous use

Dosage and administration details:

Abraxane was administered at a dose of 125mg/m<sup>2</sup> intravenously over 30 minutes on Days 1, 8 and 15 of each 28-day cycle, for a minimum of 3 cycles and a maximum of 6 cycles.

Investigational medicinal product name	Gemcitabine
Investigational medicinal product code	
Other name	Gemzar
Pharmaceutical forms	Powder for solution for infusion
Routes of administration	Intravenous use

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**Dosage and administration details:**

Gemcitabine was administered at a dose of 1000mg/m<sup>2</sup> intravenously over 30 minutes immediately after the completion of Abraxane administration on Days 1, 8 and 15 of each 28-day cycle. Patients received a minimum of 3 cycles and a maximum of 6 cycles.

Number of subjects in period 1	Abraxane & Gemcitabine treatment
Started	9
Completed	9

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**Period 2**

Period 2 title	Post-Baseline
Is this the baseline period?	No
Allocation method	Not applicable
Blinding used	Not blinded

**Arms**

Arm title	Abraxane & Gemcitabine treatment
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**Arm description:**

Patients received Abraxane followed by Gemcitabine in combination for up to 6 cycles. Evaluation of resectability was performed after 3 cycles. If operable after 3 cycles, appropriate surgical intervention was undertaken. 1 further cycle of treatment could be administered whilst patients awaited surgery. If patients were considered unresectable after 3 cycles, a further 3 cycles of treatment was given before final re-evaluation of resectability. Patients received up to a maximum of 6 cycles.

Arm type	Experimental
Investigational medicinal product name	Abraxane
Investigational medicinal product code	
Other name	nab-paclitaxel
Pharmaceutical forms	Powder for solution for infusion
Routes of administration	Intravenous use

**Dosage and administration details:**

Abraxane was administered at a dose of 125mg/m<sup>2</sup> intravenously over 30 minutes on Days 1, 8 and 15 of each 28-day cycle, for a minimum of 3 cycles and a maximum of 6 cycles.

Investigational medicinal product name	Gemcitabine
Investigational medicinal product code	
Other name	Gemzar
Pharmaceutical forms	Powder for solution for infusion
Routes of administration	Intravenous use

**Dosage and administration details:**

Gemcitabine was administered at a dose of 1000mg/m<sup>2</sup> intravenously over 30 minutes immediately after the completion of Abraxane administration on Days 1, 8 and 15 of each 28-day cycle. Patients received a minimum of 3 cycles and a maximum of 6 cycles.

<b>Number of subjects in period 2</b>	Abraxane & Gemcitabine treatment
Started	9
Completed	9

## Baseline characteristics

### Reporting groups

Reporting group title	On study
Reporting group description:	
All enrolled subjects	

Reporting group values	On study	Total	
Number of subjects	9	9	
Age categorical			
All enrolled subjects			
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)	4	4	
From 65-84 years	5	5	
85 years and over	0	0	
Age continuous			
Units: years			
median	65.5		
full range (min-max)	59.0 to 77.3	-	
Gender categorical			
Units: Subjects			
Female	6	6	
Male	3	3	
Stage at Initial Diagnosis of PDAC			
Stage at Initial Diagnosis of Pancreatic Ductal Adenocarcinoma (PDAC)			
Units: Subjects			
II	1	1	
IIB	2	2	
III	6	6	
ECOG PS			
ECOG Performance Status			
Units: Subjects			
PS 0	5	5	
PS 1	4	4	
CA19.9			
Units: U/ml			
median	432.00		
full range (min-max)	165.00 to 1334.00	-	

**Subject analysis sets**

Subject analysis set title	Abraxane & Gemcitabine treatment (Evaluable)
Subject analysis set type	Full analysis

Subject analysis set description:

The Evaluable population is defined as patients who received at least 3 cycles and up to 6 cycles of protocol treatment or stopped protocol treatment early due to disease progression. The evaluable population is used for the analysis of the primary endpoint.

<b>Reporting group values</b>	Abraxane & Gemcitabine treatment (Evaluable)		
Number of subjects	9		
Age categorical			
All enrolled subjects			
Units: Subjects			
In utero	0		
Preterm newborn infants (gestational age < 37 wks)	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)	4		
From 65-84 years	5		
85 years and over	0		
Age continuous			
Units: years			
median	65.5		
full range (min-max)	59.0 to 77.3		
Gender categorical			
Units: Subjects			
Female	6		
Male	3		
Stage at Initial Diagnosis of PDAC			
Stage at Initial Diagnosis of Pancreatic Ductal Adenocarcinoma (PDAC)			
Units: Subjects			
II	1		
IIB	2		
III	6		
ECOG PS			
ECOG Performance Status			
Units: Subjects			
PS 0	5		
PS 1	4		
CA19.9			
Units: U/ml			
median	432.00		
full range (min-max)	165.00 to 1334.00		



## End points

### End points reporting groups

Reporting group title	Abraxane & Gemcitabine treatment
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#### Reporting group description:

Patients received Abraxane followed by Gemcitabine in combination for up to 6 cycles. Evaluation of resectability was performed after 3 cycles. If operable after 3 cycles, appropriate surgical intervention was undertaken. 1 further cycle of treatment could be administered whilst patients awaited surgery. If patients were considered unresectable after 3 cycles, a further 3 cycles of treatment was given before final re-evaluation of resectability. Patients received up to a maximum of 6 cycles.

Reporting group title	Abraxane & Gemcitabine treatment
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#### Reporting group description:

Patients received Abraxane followed by Gemcitabine in combination for up to 6 cycles. Evaluation of resectability was performed after 3 cycles. If operable after 3 cycles, appropriate surgical intervention was undertaken. 1 further cycle of treatment could be administered whilst patients awaited surgery. If patients were considered unresectable after 3 cycles, a further 3 cycles of treatment was given before final re-evaluation of resectability. Patients received up to a maximum of 6 cycles.

Subject analysis set title	Abraxane & Gemcitabine treatment (Evaluable)
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Subject analysis set type	Full analysis
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#### Subject analysis set description:

The Evaluable population is defined as patients who received at least 3 cycles and up to 6 cycles of protocol treatment or stopped protocol treatment early due to disease progression. The evaluable population is used for the analysis of the primary endpoint.

### **Primary: Determination of resectability rate in "category 2" borderline unresectable locally advanced pancreatic cancer patients after up to 6 cycles of treatment with Abraxane and Gemcitabine as deemed by independent review**

End point title	Determination of resectability rate in "category 2" borderline unresectable locally advanced pancreatic cancer patients after up to 6 cycles of treatment with Abraxane and Gemcitabine as deemed by independent review
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#### End point description:

Evaluation of resectability occurred through central review of CT scans; patients enrolled on study with Category 2 tumours were only to be considered resectable if their CT scan confirmed change to Category 1 characteristics. Each assessment of operability was undertaken by at least two external observers from a pre-specified panel of surgeons and radiologists using a structured reporting system. All 9 enrolled subjects are in the Evaluable population, hence they are all included in the primary endpoint analysis.

This is a single arm study, therefore there are no statistical comparisons.

A total of 4/9 (44.4%) subjects were considered resectable by central radiological review at end of treatment (95% CI: 13.7%, 78.8%).

End point type	Primary
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#### End point timeframe:

If rendered operable after 3 or 6 cycles, appropriate surgical intervention was undertaken and patients went on to standard adjuvant therapy. For patients who were resectable after 3 cycles, 1 further cycle could be administered whilst awaiting surgery

<b>End point values</b>	Abraxane & Gemcitabine treatment	Abraxane & Gemcitabine treatment (Evaluable)		
Subject group type	Reporting group	Subject analysis set		
Number of subjects analysed	9	9		
Units: Subjects				
Resectable	4	4		
Non-Resectable	5	5		

## Statistical analyses

<b>Statistical analysis title</b>	resection rate
Statistical analysis description: single-armed estimate and 95% CI of resection rate	
Comparison groups	Abraxane & Gemcitabine treatment v Abraxane & Gemcitabine treatment (Evaluable)
Number of subjects included in analysis	18
Analysis specification	Pre-specified
Analysis type	other <sup>[1]</sup>
Parameter estimate	rate
Point estimate	0.444
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.137
upper limit	0.788

Notes:

[1] - This is a single arm study, a total of 9 patients were enrolled. However the "Number of subjects included in analysis = 18" (two rows above) is an incorrect value, auto-generated which combines the "Reporting group" and "Subject analysis set".

## Secondary: Radiological response as determined by percentage change in sum of longest diameters for all target lesions at 3 or 6 months from the start of treatment

End point title	Radiological response as determined by percentage change in sum of longest diameters for all target lesions at 3 or 6 months from the start of treatment
End point description: This is a single arm study, therefore there are no statistical comparisons. Summary statistics for Percentage Change from Baseline are presented.	
End point type	Secondary
End point timeframe: Percentage change in the sum of the longest diameters for all target lesions at 3 or 6 months from start of ABX/GEM treatment.	

End point values	Abraxane & Gemcitabine treatment (Evaluable)			
Subject group type	Subject analysis set			
Number of subjects analysed	9			
Units: mm				
median (full range (min-max))	-14.3 (-46.7 to 0.0)			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Response assessment by RECIST 1.1 criteria using conventional computerised tomography (CT) or magnetic resonance imaging (MRI) measurements

End point title	Response assessment by RECIST 1.1 criteria using conventional computerised tomography (CT) or magnetic resonance imaging (MRI) measurements
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End point description:

This is a single-arm study, therefore there are no statistical comparisons.

Responder is defined as Overall response = CR or PR.

A total of 3/9 (33.3%) subjects were considered an Overall Responder at end of treatment (95% CI: 7.5%, 70.1%).

End point type	Secondary
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End point timeframe:

Response Assessments (CR, PR, SD or PD) by RECIST 1.1 criteria at 3 or 6 months using conventional CT or MRI.

End point values	Abraxane & Gemcitabine treatment (Evaluable)			
Subject group type	Subject analysis set			
Number of subjects analysed	9			
Units: Subjects				
Responder (CR/PR)	3			
Non-Responder (SD/PD/NE)	6			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Biochemical response rate (serum CA19.9)

End point title	Biochemical response rate (serum CA19.9)
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End point description:

This is a single-arm study, therefore there are no statistical comparisons.

Evaluable subjects who have data at Baseline and End of Treatment visit are included.  
Summary statistics for Percentage Change from Baseline are presented.

End point type	Secondary
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End point timeframe:

Baseline is defined as the Day 1 Cycle 1 assessment. End of Treatment visit occurred 30 (28-35) days following end of treatment, or 30 (28-35) days following date of surgery for subjects undergoing surgery.

<b>End point values</b>	Abraxane & Gemcitabine treatment (Evaluable)			
Subject group type	Subject analysis set			
Number of subjects analysed	8			
Units: U/ml				
median (full range (min-max))	-81.19 (-95.14 to -33.33)			

## Statistical analyses

No statistical analyses for this end point

## Secondary: Operability Rate (Institution determined)

End point title	Operability Rate (Institution determined)
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End point description:

Primary Endpoint of resectability after up to 6 cycles is based on independent central review. If local site assessment of disease at the Specialist Multi-Disciplinary Team contradicted the independent assessment such that local investigators decided an R0 resection was possible, this is captured in this secondary endpoint of operability rate.

This is a single-arm study, therefore there are no statistical comparisons.

A total of 5/9 (55.6%) subjects were considered resectable by local review at end of treatment (95% CI: 21.2%, 86.3%).

Note that the LOCAL and CENTRAL review decisions differed for 3 subjects: 2 subjects were not considered resectable based on central review but were considered operable based on local review, and both underwent surgery; 1 subject was considered resectable based on central review but not considered operable based on local review, this subject underwent surgery. Therefore, a total of 6 subjects were actually considered eligible for surgery.

End point type	Secondary
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End point timeframe:

Operability rate is based on the local radiological review outcome after up to 6 cycles of ABX/GEM treatment.

End point values	Abraxane & Gemcitabine treatment (Evaluable)			
Subject group type	Subject analysis set			
Number of subjects analysed	9			
Units: Subjects				
Resectable	5			
Non-resectable	4			

## Statistical analyses

No statistical analyses for this end point

## Secondary: Pathological down-staging and margin status after resection

End point title	Pathological down-staging and margin status after resection
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End point description:

This is a single-arm study, therefore there are no statistical comparisons.

The percentage of patients in each category of tumour destruction is presented. The categories range from Grade I (1%-9% of tumour necrosis) to Grade IV (absence of viable tumour cells), with an additional category of None (no tumour necrosis).

Whilst 6 subjects initially underwent surgery, for one subject their surgery was unable to be performed (peritoneal deposits), and they have no histopathology report.

Of the 5 subjects with Histopathology Report, 4 (80%) had resection margins involved.

End point type	Secondary
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End point timeframe:

As captured on Histopathology Report following Surgery.

End point values	Abraxane & Gemcitabine treatment (Evaluable)			
Subject group type	Subject analysis set			
Number of subjects analysed	5			
Units: Subjects				
Grade I (1%-9% of tumour necrosis)	2			
Grade II (10%-90% of tumour necrosis)	3			

## Statistical analyses

No statistical analyses for this end point

## Secondary: Assessment of peri- and post-operative outcomes following surgery

End point title	Assessment of peri- and post-operative outcomes following surgery
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End point description:

This is a single-arm study, therefore there are no statistical comparisons.

Intra-operative complications were reported for 1 subject (prolonged procedure due to vascular

involvement).

Specific post-operative complications of Delayed gastric emptying / post-operative pancreatic fistula / post-operative pancreatic haemorrhage / any other post-operative complications were captured at the Surgery follow-up visit. There were none reported.

End point type	Secondary
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End point timeframe:

Intra-operative complications were captured on the Surgery CRF.

Post-operative complications were reported at the Day of Surgery + 2-6 weeks visit.

<b>End point values</b>	Abraxane & Gemcitabine treatment (Evaluable)			
Subject group type	Subject analysis set			
Number of subjects analysed	6			
Units: Subjects				
Any Post-Op complications? No	6			

### Statistical analyses

No statistical analyses for this end point

### Secondary: 30-Day post-operative mortality

End point title	30-Day post-operative mortality
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End point description:

This is a single-arm study, therefore there are no statistical comparisons.

There were no deaths reported during the PRICKLE study, therefore this endpoint is not applicable.

End point type	Secondary
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End point timeframe:

Deaths reported within 30 days following surgery

<b>End point values</b>	Abraxane & Gemcitabine treatment (Evaluable)			
Subject group type	Subject analysis set			
Number of subjects analysed	6			
Units: Subjects				
30-Day post-op death? No	6			

### Statistical analyses

No statistical analyses for this end point

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

Timeframe for AE

Adverse event reporting additional description:

AE additional description

Assessment type	Systematic
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### Dictionary used

Dictionary name	CTCAE
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Dictionary version	4.03
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### Reporting groups

Reporting group title	All Participants
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Reporting group description: -

Serious adverse events	All Participants		
Total subjects affected by serious adverse events			
subjects affected / exposed	4 / 9 (44.44%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Blood and lymphatic system disorders			
Febrile neutropenia			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	0 / 0		
General disorders and administration site conditions			
Fever			
alternative assessment type: Non-systematic			
subjects affected / exposed	2 / 9 (22.22%)		
occurrences causally related to treatment / all	0 / 3		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Biliary tract infection			
alternative assessment type: Non-systematic			

subjects affected / exposed	1 / 9 (11.11%)		
occurrences causally related to treatment / all	0 / 2		
deaths causally related to treatment / all	0 / 0		
Urinary tract infection			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences causally related to treatment / all	1 / 2		
deaths causally related to treatment / all	0 / 0		

Frequency threshold for reporting non-serious adverse events: 0 %

<b>Non-serious adverse events</b>	All Participants		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	9 / 9 (100.00%)		
Vascular disorders			
Hot flashes			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Hypertension			
alternative assessment type: Non-systematic			
subjects affected / exposed	3 / 9 (33.33%)		
occurrences (all)	3		
Hypotension			
alternative assessment type: Non-systematic			
subjects affected / exposed	2 / 9 (22.22%)		
occurrences (all)	2		
Phlebitis			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
General disorders and administration site conditions			
Chills			
alternative assessment type: Non-systematic			



subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Edema limbs			
alternative assessment type: Non-systematic			
subjects affected / exposed	3 / 9 (33.33%)		
occurrences (all)	5		
Fatigue			
alternative assessment type: Non-systematic			
subjects affected / exposed	9 / 9 (100.00%)		
occurrences (all)	41		
Fever			
alternative assessment type: Non-systematic			
subjects affected / exposed	5 / 9 (55.56%)		
occurrences (all)	6		
Flu like symptoms			
alternative assessment type: Non-systematic			
subjects affected / exposed	4 / 9 (44.44%)		
occurrences (all)	8		
General disorders - Other, rigor/shiver			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
General disorders and administration site conditions - Other, coryzal symptoms			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Malaise			
alternative assessment type: Non-systematic			
subjects affected / exposed	2 / 9 (22.22%)		
occurrences (all)	2		
Respiratory, thoracic and mediastinal disorders			

Cough			
alternative assessment type: Non-systematic			
subjects affected / exposed	4 / 9 (44.44%)		
occurrences (all)	4		
Dyspnea			
alternative assessment type: Non-systematic			
subjects affected / exposed	4 / 9 (44.44%)		
occurrences (all)	4		
Epistaxis			
alternative assessment type: Non-systematic			
subjects affected / exposed	5 / 9 (55.56%)		
occurrences (all)	6		
Laryngeal inflammation			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Postnasal drip			
alternative assessment type: Non-systematic			
subjects affected / exposed	3 / 9 (33.33%)		
occurrences (all)	3		
Productive cough			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Respiratory, thoracic and mediastinal disorders - Other, mucositis nasal sores			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Sore throat			
alternative assessment type: Non-systematic			
subjects affected / exposed	2 / 9 (22.22%)		
occurrences (all)	2		
Psychiatric disorders			

Depression alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 2		
Investigations Alanine aminotransferase increased alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	6 / 9 (66.67%) 21		
Alkaline phosphatase increased alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	4 / 9 (44.44%) 17		
Aspartate aminotransaminase increased alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Aspartate aminotransferase increased alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	5 / 9 (55.56%) 10		
Blood bilirubin increased alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	3 / 9 (33.33%) 8		
Investigations - Other, creactive protein increased alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Investigations - Other, leukocyte count decreased alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		

Investigations - Other, leukocytes in urine			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Lymphocyte count decreased			
alternative assessment type: Non-systematic			
subjects affected / exposed	4 / 9 (44.44%)		
occurrences (all)	8		
Neutrophil count decreased			
alternative assessment type: Non-systematic			
subjects affected / exposed	6 / 9 (66.67%)		
occurrences (all)	16		
Pancreatic enzymes decreased			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Platelet count decreased			
alternative assessment type: Non-systematic			
subjects affected / exposed	2 / 9 (22.22%)		
occurrences (all)	4		
Serum amylase increased			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	4		
Weight loss			
alternative assessment type: Non-systematic			
subjects affected / exposed	3 / 9 (33.33%)		
occurrences (all)	3		
White blood cell decreased			
alternative assessment type: Non-systematic			
subjects affected / exposed	5 / 9 (55.56%)		
occurrences (all)	9		
Injury, poisoning and procedural complications			

Fall alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	2 / 9 (22.22%) 3		
Nervous system disorders Dysesthesia alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Dysgeusia alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	6 / 9 (66.67%) 12		
Headache alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	2 / 9 (22.22%) 4		
Nervous system disorders - Other, migraine alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Nervous system disorders - Other, vivid dreams alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Peripheral motor neuropathy alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Peripheral sensory neuropathy alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	2 / 9 (22.22%) 3		
Syncope			

alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 2		
Vasovagal reaction alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Blood and lymphatic system disorders Anemia alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	4 / 9 (44.44%) 6		
Ear and labyrinth disorders Ear and labyrinth disorders - Other, dizziness and full sensation middle ear alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Ear pain alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Eye disorders Eye disorders - Other, cloudy eyes alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Watering eyes alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	2 / 9 (22.22%) 2		
Gastrointestinal disorders Abdominal pain alternative assessment type: Non-systematic			

subjects affected / exposed	8 / 9 (88.89%)		
occurrences (all)	15		
Bloating			
alternative assessment type: Non-systematic			
subjects affected / exposed	2 / 9 (22.22%)		
occurrences (all)	2		
Constipation			
alternative assessment type: Non-systematic			
subjects affected / exposed	7 / 9 (77.78%)		
occurrences (all)	14		
Diarrhea			
alternative assessment type: Non-systematic			
subjects affected / exposed	9 / 9 (100.00%)		
occurrences (all)	22		
Dry mouth			
alternative assessment type: Non-systematic			
subjects affected / exposed	6 / 9 (66.67%)		
occurrences (all)	6		
Dyspepsia			
alternative assessment type: Non-systematic			
subjects affected / exposed	2 / 9 (22.22%)		
occurrences (all)	2		
Fecal incontinence			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Flatulence			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Gastroesophageal reflux disease			
alternative assessment type: Non-systematic			
subjects affected / exposed	2 / 9 (22.22%)		
occurrences (all)	3		

Gastrointestinal disorders - Other, eructation			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Gastrointestinal disorders - Other, reflux oesophagitis			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Gastrointestinal disorders - Other, steatorrhea			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Mucositis oral			
alternative assessment type: Non-systematic			
subjects affected / exposed	4 / 9 (44.44%)		
occurrences (all)	6		
Nausea			
alternative assessment type: Non-systematic			
subjects affected / exposed	8 / 9 (88.89%)		
occurrences (all)	22		
Pancreatitis			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Rectal hemorrhage			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		
Vomiting			
alternative assessment type: Non-systematic			
subjects affected / exposed	6 / 9 (66.67%)		
occurrences (all)	27		
Hepatobiliary disorders			



Cholecystitis alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Hepatobiliary disorders - Other, biliary stent obstruction alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Skin and subcutaneous tissue disorders			
Alopecia alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	8 / 9 (88.89%) 16		
Dry skin alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Pruritus alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	5 / 9 (55.56%) 8		
Purpura alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 9 (11.11%) 1		
Rash acneiform alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	2 / 9 (22.22%) 4		
Rash maculo-papular alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	7 / 9 (77.78%) 18		
Skin and subcutaneous tissue disorders - Other, erythema			

<p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p>	<p>1 / 9 (11.11%)</p> <p>2</p>		
<p>Skin and subcutaneous tissue disorders - Other, rosacea</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p>	<p>1 / 9 (11.11%)</p> <p>1</p>		
<p>Urticaria</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p>	<p>1 / 9 (11.11%)</p> <p>1</p>		
<p>Renal and urinary disorders</p> <p>Hematuria</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p>	<p>1 / 9 (11.11%)</p> <p>1</p>		
<p>Proteinuria</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p>	<p>2 / 9 (22.22%)</p> <p>2</p>		
<p>Renal and urinary disorders - Other, bacteriuria</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p>	<p>1 / 9 (11.11%)</p> <p>1</p>		
<p>Renal and urinary disorders - Other, bilirubinuria</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p>	<p>2 / 9 (22.22%)</p> <p>2</p>		
<p>Urinary frequency</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p>	<p>1 / 9 (11.11%)</p> <p>1</p>		
<p>Urine discoloration</p>			

<p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p>	<p>1 / 9 (11.11%)</p> <p>1</p>		
<p>Musculoskeletal and connective tissue disorders</p> <p>Arthralgia</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p> <p>Back pain</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p> <p>Myalgia</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p>	<p>2 / 9 (22.22%)</p> <p>3</p> <p>1 / 9 (11.11%)</p> <p>2</p> <p>3 / 9 (33.33%)</p> <p>4</p>		
<p>Infections and infestations</p> <p>Hepatitis viral</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p> <p>Mucosal infection</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p> <p>Soft tissue infection</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p> <p>Upper respiratory infection</p> <p>alternative assessment type: Non-systematic</p> <p>subjects affected / exposed</p> <p>occurrences (all)</p> <p>Urinary tract infection</p> <p>alternative assessment type: Non-</p>	<p>1 / 9 (11.11%)</p> <p>1</p> <p>3 / 9 (33.33%)</p> <p>4</p> <p>1 / 9 (11.11%)</p> <p>1</p> <p>1 / 9 (11.11%)</p> <p>1</p>		

systematic			
subjects affected / exposed	2 / 9 (22.22%)		
occurrences (all)	3		
Vaginal infection			
alternative assessment type: Non-systematic			
subjects affected / exposed	2 / 9 (22.22%)		
occurrences (all)	2		
Metabolism and nutrition disorders			
Anorexia			
alternative assessment type: Non-systematic			
subjects affected / exposed	7 / 9 (77.78%)		
occurrences (all)	23		
Hypoalbuminemia			
alternative assessment type: Non-systematic			
subjects affected / exposed	2 / 9 (22.22%)		
occurrences (all)	3		
Metabolism and nutrition disorders - Other, glucose in urine			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 9 (11.11%)		
occurrences (all)	1		

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
28 May 2015	Safety & IMP updates following release of new Abraxane SmPC. Removal of SPARC analysis. Clarifications to procedures and assessment timing.
07 February 2017	Extension of the study by 12 months due to slower than expected recruitment.
30 June 2017	Protocol Reference Safety Information updated. Abraxane SmPC updates.

Notes:

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### Interruptions (globally)

Were there any global interruptions to the trial? No

### Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

N/A
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Notes: