

# Evaluating the potential benefit of adjuvant chemotherapy for small bowel adenocarcinoma

<b>Submission date</b> 04/12/2014	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
<b>Registration date</b> 16/12/2014	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 11/04/2024	<b>Condition category</b> Cancer	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

<https://www.cancerresearchuk.org/about-cancer/find-a-clinical-trial/a-trial-looking-at-chemotherapy-after-surgery-for-small-bowel-cancer-ballad>

## Contact information

### Type(s)

Public

### Contact name

Mrs Sarah Bradley

### Contact details

CRUK CTU Glasgow  
1053 Great Western Road  
Glasgow  
United Kingdom  
G12 0YN  
0141 301 7540  
sarah.bradley@glasgow.ac.uk

## Additional identifiers

### ClinicalTrials.gov (NCT)

NCT04257461

### Clinical Trials Information System (CTIS)

2013-003047-29

### Protocol serial number

BALLAD 2013

# Study information

## Scientific Title

A trial to evaluate the potential benefit of adjuvant chemotherapy for small bowel adenocarcinoma

## Acronym

BALLAD

## Study objectives

Current study hypothesis as of 12/07/2019:

Adjuvant fluoropyrimidine chemotherapy results in an improved outcome (DFS and OS) over observation alone after potentially curative surgery for stage I, II, III and IV SBA2. Adjuvant fluoropyrimidine and oxaliplatin chemotherapy results in an improved outcome (DFS and OS) over fluoropyrimidine alone after potentially curative surgery for stage I, II, III and IV small bowel adenocarcinoma

Previous study hypothesis:

Adjuvant fluoropyrimidine chemotherapy results in an improved outcome (DFS and OS) over observation alone after potentially curative surgery for stage I, II and III SBA2. Adjuvant fluoropyrimidine and oxaliplatin chemotherapy results in an improved outcome (DFS and OS) over fluoropyrimidine alone after potentially curative surgery for stage I, II and III small bowel adenocarcinoma.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

West of Scotland Research Ethics Service 1, 05/03/2015, ref: 15/WS/0011

## Study design

Open-label randomised controlled multi-centre global trial

## Primary study design

Interventional

## Study type(s)

Treatment

## Health condition(s) or problem(s) studied

Small bowel adenocarcinoma

## Interventions

Group 1: Patients will be randomised between observation and chemotherapy. Those patients who draw the chemotherapy arm and who have consented to this can go on to be randomised into the group 2 question. This is to be encouraged as it will add significant value and improve efficiency of the trial.

Group 2: Patients will be randomised to receive therapy with a fluoropyrimidine regimen or combination therapy of fluoropyrimidine plus oxaliplatin. Investigators must specify the fluoropyrimidine regimen at the time of randomisation for each individual patient. Any accepted

institutional standard IV 5-FU/Folinic Acid regimen or oral capecitabine regimen may be used. The combination regimen is specified as oxaliplatin delivered as part of a standard institutional fluoropyrimidine combination regimen. Treatment will continue for up to 24 weeks

## **Intervention Type**

Drug

## **Phase**

Phase III

## **Drug/device/biological/vaccine name(s)**

1. Capecitabine 2. 5-FU 3. Oxaliplatin

## **Primary outcome(s)**

Disease free survival is the primary end point for the trial. This is defined at time from randomisation to the first occurrence of the following events:

1. Disease relapse (confirmed by imaging)
2. Incidence of a new primary (confirmed by imaging and histology/cytology)
3. Death from any cause

Patients who experience none of these events are censored at the last date known to be alive.

## **Key secondary outcome(s)**

1. Overall survival: The patient's survival status is determined at each follow-up visit. After the mandated clinic visits survival status data will come from responsible cancer centres, cancer registries and national databases and include long-term passive follow-up data such as that collected through collaboration with the National Cancer Intelligence Network in the U.K.
2. Toxicity of chemotherapy: Toxicity will be assessed using CTCAE version 4.0. Only toxicities that are at least grade 2 will be recorded on the CRF
3. Quality of life: This is assessed using the EORTC QLQ-C30, EORTC QLQ-CR29 v2.1 and EQ-5D scales

Health Economics: Assess the cost-effectiveness of 24 weeks adjuvant chemotherapy in comparison to observation alone; and assess the cost-effectiveness of 24 weeks adjuvant 5FU /Capecitabine monotherapy compared to 5FU/Capecitabine plus Oxaliplatin. Outcomes will be reported as incremental cost per DFS and incremental cost per QALY. 4. Establishment of a central tissue bank for patients with SBA

## **Completion date**

28/02/2025

## **Eligibility**

### **Key inclusion criteria**

Current participant inclusion criteria as of 12/07/2019:

1. R0 resected stage I, II, III or IV SBA
2. No evidence of residual or metastatic disease at laparotomy or on CT/MRI imaging of chest, abdomen and pelvis
3. Patients must be registered and randomised within 14 weeks of surgery and commence chemotherapy within 16 weeks of surgery
4. ECOG Performance Status of 0 or 1
5. Absolute neutrophil count  $\geq 1.5 \times 10^9/l$
6. Platelet count  $\geq 100 \times 10^9/l$

7. Haemoglobin  $\geq 90$  g/l (previous transfusion is allowed)
8. AST and ALT  $\leq 2.5$  x upper limit of normal (ULN). (At least one of ALT or AST MUST be performed)
9. Creatinine clearance  $> 50$  ml/min (calculated by Cockcroft Gault or Wright equation) or measured by EDTA
10. Serum bilirubin  $\leq 1.5$  x ULN
11. Signed and dated informed consent indicating that the patient has been informed of all the pertinent aspects of the trial prior to enrolment
12. Age  $\geq 16$  years
13. Willingness and ability to comply with scheduled visits, treatment plans and laboratory tests and other trial procedures

Previous participant inclusion criteria:

1. R0 resected stage I, II or III SBA
2. No evidence of residual or metastatic disease at laparotomy or on CT/MRI imaging of chest, abdomen and pelvis
3. Patients must be registered and randomised within 12 weeks of surgery and commence chemotherapy within 14 weeks of surgery
4. ECOG Performance Status of 0 or 1
5. Absolute neutrophil account  $\geq 1.5 \times 10^9/l$
6. Platelet count  $\geq 100 \times 10^9/l$
7. Haemoglobin  $\geq 90$  g/l (previous transfusion is allowed)
8. AST and ALT  $\leq 2.5$  x upper limit of normal (ULN). (At least one of ALT or AST MUST be performed)
9. Creatinine clearance  $> 50$  ml/min (calculated by Cockcroft Gault or Wright equation) or measured by EDTA
10. Serum bilirubin  $\leq 1.5$  x ULN
11. Signed and dated informed consent indicating that the patient has been informed of all the pertinent aspects of the trial prior to enrolment
12. Age  $\geq 16$  years
13. Willingness and ability to comply with scheduled visits, treatment plans and laboratory tests and other trial procedures

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

**Total final enrolment**

69

**Key exclusion criteria**

Current participant exclusion criteria as of 12/07/2019:

1. Non-adenocarcinoma histology of small bowel tumour which includes but is not confined to

lymphoma, GIST, carcinoid or other neuroendocrine tumour, squamous carcinoma, melanoma or sarcoma.

2. Adenocarcinoma arising in the appendix or colorectum
3. Previous neo-adjuvant chemo(radio)therapy for SBA
4. Clinically significant cardiovascular disease (i.e. active or < 12 months since cerebrovascular accident, myocardial infarction, unstable angina, New York Heart Association [NYHA] grade II or greater congestive heart failure, serious cardiac arrhythmia requiring medication, uncontrolled hypertension)
5. Pregnancy/lactation or of child bearing potential and not using medically approved contraception. (Postmenopausal women must have been amenorrhoeic for at least 12 months to be considered of non-childbearing potential)
6. Previous invasive or non-invasive malignancy except:
  - (i) Ductal Carcinoma in Situ (DCIS) of the breast where treatment consisted of resection alone,
  - (ii) cervical carcinoma in situ where treatment consisted of resection alone, (iii) basal cell or squamous cell carcinoma where treatment consisted of resection alone or radiotherapy, (iv) superficial bladder carcinoma where treatments consisted of resection alone or with a single installation of intravesical chemotherapy or with BCG treatment, (v) other cancers where the patient has been disease-free for at least 3 years and treatment was with curative intent and (vi) other cancers with very low potential for recurrence can be discussed with the CI or his approved representative through the Glasgow CRUK Clinical Trials Unit where eligibility will be considered on an individual basis
7. Known or suspected dihydropyrimidine dehydrogenase (DPD) deficiency
8. Known untreated coeliac disease (may be enrolled if diet controlled), untreated chronic inflammatory bowel disease or other cause of malabsorption or intestinal obstruction
9. Grade  $\geq 2$  peripheral neuropathy
10. Administration of any investigational drug within 28 days or 5 half-lives, whichever is longer, prior to receiving the first dose of trial treatment.
11. Previous hypersensitivity to platinum salts
12. Patients with clinically significant, active infections, or any other serious medical condition in which chemotherapy is contraindicated will be excluded
13. Patients with untreated vitamin B12 deficiency are excluded from receiving folinic acid as part of their chemotherapy regimen. However, these patients may be eligible for treatment with capecitabine fluoropyrimidine therapy, where no folinic acid is administered as part of the treatment regimen
14. Patients with clinically significant sensorineural hearing impairment are excluded from receiving oxaliplatin but will be eligible for the fluoropyrimidine monotherapy provided as a clinician's choice for patients in group 1 randomised to either observation or chemotherapy
15. Any patient receiving treatment with brivudine, sorivudine and analogues

Previous participant exclusion criteria:

1. Non-adenocarcinoma histology of small bowel tumour which includes but is not confined to lymphoma, GIST, carcinoid or other neuroendocrine tumour, squamous carcinoma, melanoma or sarcoma
2. Previous neo-adjuvant chemo(radio)therapy for SBA
3. Clinically significant cardiovascular disease (i.e. active or < 12 months since cerebrovascular accident, myocardial infarction, unstable angina, New York Heart Association [NYHA] grade II or greater congestive heart failure, serious cardiac arrhythmia requiring medication, uncontrolled hypertension)
4. Pregnancy/lactation or of child bearing potential and not using medically approved contraception. (Postmenopausal women must have been amenorrhoeic for at least 12 months to be considered of non-childbearing potential)

5. Previous malignancy other than adequately treated in situ carcinoma of the uterine cervix or basal or squamous cell carcinoma of the skin, unless there has been a disease free interval of at least 3 years and treatment was with curative intent
6. Known or suspected dihydropyrimidine dehydrogenase (DPD) deficiency
7. Known untreated coeliac disease (may be enrolled if diet controlled), untreated chronic inflammatory bowel disease or other cause of malabsorption or intestinal obstruction
8. Grade  $\geq 2$  peripheral neuropathy
9. Administration of any investigational drug within 28 days or 5 half-lives, whichever is longer, prior to receiving the first dose of trial treatment
10. Previous hypersensitivity to platinum salts

**Date of first enrolment**

25/08/2015

**Date of final enrolment**

31/08/2022

## Locations

**Countries of recruitment**

United Kingdom

Belgium

France

Japan

**Study participating centre**

Beatson West of Scotland Cancer Centre

United Kingdom

-

## Sponsor information

**Organisation**

Greater Glasgow and Clyde Healthboard and University of Glasgow

**ROR**

<https://ror.org/05kdz4d87>

## Funder(s)

**Funder type**

Not defined

### Funder Name

Cancer Research UK

### Alternative Name(s)

CR\_UK, Cancer Research UK - London, Cancer Research UK (CRUK), CRUK

### Funding Body Type

Private sector organisation

### Funding Body Subtype

Other non-profit organizations

### Location

United Kingdom

## Results and Publications

### Individual participant data (IPD) sharing plan

Not provided at time of registration

### IPD sharing plan summary

Available on request

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">HRA research summary</a>			28/06/2023	No	No
<a href="#">Protocol file</a>	version 6	16/07/2021	26/11/2021	No	No