

# ENDCaP-C test accuracy study

<b>Submission date</b> 08/01/2015	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 11/05/2015	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 26/01/2021	<b>Condition category</b> Digestive System	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Ulcerative colitis (UC) is a long-term condition where the colon and rectum become inflamed. It affects over 30,000 patients in the UK and patients with long-term UC are at an increased risk of developing bowel cancer. Timely recognition of the development of cancer is vital in order to improve outcome for patients. Currently in the UK patients undergo regular and thorough surveillance of the colon to look for the early signs of cancer. Unfortunately this is not adequate and the mortality from late-detected colitis-associated cancers remains high. The main aim of this study is to evaluate the ability of a new diagnostic test to detect patients at high risk of developing colon cancer compared to histology. The test is based on determining whether certain genes that protect against the development of cancer have been inactivated and if effective, could result in a significant change in practice.

### Who can participate?

This study aims to recruit up to 1000 patients across NHS hospitals in the UK that have active long-term inflammatory bowel disease endoscopic surveillance programmes. Eligible patients will have UC (either for at least 10 years with extensive disease, or also have primary sclerosing cholangitis), will be on the surveillance programme and undergoing a routine colonoscopy during the study period, have no previous history of colorectal cancer and meet the rest of the rest of the eligibility criteria.

### What does the study involve?

All patients will undergo a routine surveillance colonoscopy. In addition to the routine biopsies, an additional five biopsies will be taken. If cancer or the early stages of cancer are detected, then the patient will be offered surgery. Patients for which the new test detects cancer but histology does not, will undergo a repeat colonoscopy at 4 to 12 months. Patients will be followed up through routinely collected data sources, to include, for example, cancer development and long-term survival.

### What are the possible benefits and risks of participating?

There may be no direct benefit in taking part in this study, however, participants may benefit from that any pre-cancer changes will be detected early which would ensure that treatments could be started earlier. It has been shown that starting treatment earlier is often more effective. The study may involve an extra colonoscopy between 6 and 9 months after entry into the study. This will involve standard bowel preparation (including laxatives or an enema). A

sedative and pain killers may also be given during the colonoscopy. The procedure will be of roughly the same duration as the initial colonoscopy. There is a very small risk (a 1 in 1000 chance) with colonoscopy of bowel perforation or bleeding. If this happened, an operation would be required to repair the hole. At the second colonoscopy you will also be asked to provide a stool sample and to collect a small blood sample.

Where is the study run from?  
University of Birmingham (UK)

When is the study starting and how long is it expected to run for?  
From November 2014 to May 2018

Who is funding the study?  
NIHR Efficacy and Mechanism Evaluation (UK)

Who is the main contact?  
Dr Steve Johnson  
As of 10/02/2017: Laura Magill

**Study website**  
<http://www.birmingham.ac.uk/ENDCaP-C>

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Dr Laura Magill

**Contact details**  
Birmingham Clinical Trials Unit  
University of Birmingham  
Edgbaston  
Birmingham  
United Kingdom  
B15 2TT

## Additional identifiers

**EudraCT/CTIS number**

**IRAS number**

**ClinicalTrials.gov number**

**Secondary identifying numbers**  
17739

## Study information

**Scientific Title**

Enhanced Neoplasia Detection and Cancer Prevention in Chronic Colitis (ENDCaP-C): a multicentre test accuracy study

**Acronym**

ENDCaP-C

**Study objectives**

The main aim of this study is to evaluate the ability of a new diagnostic test to detect patients at high risk of developing colon cancer compared to histology.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

First MREC approval date 30/10/2014, ref: 14/LO/1842

**Study design**

Non-randomised; Observational; Design type: Cohort study

**Primary study design**

Observational

**Secondary study design**

Cohort study

**Study setting(s)**

Hospital

**Study type(s)**

Diagnostic

**Participant information sheet**

Not available in web format, please use the contact details to request a patient information sheet

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

Topic: Gastroenterology; Subtopic: Gastroenterology; Disease: All Gastroenterology

**Interventions**

Current interventions as of 21/05/2018:

Colonoscopy and biopsy: patients will have five biopsy samples taken at their routine surveillance colonoscopy. Biopsy samples will be histologically analysed and methylation status will be determined.

Patients that have a positive methylation test but negative histology will undergo a second colonoscopy at 4-12 months and an additional five biopsy samples will be taken. Histology and methylation status will be determined.

A selection of patients that have a negative methylation test but negative histology will undergo a second colonoscopy at 4-12 months and five biopsy samples will be taken. Histology and methylation status will be determined.

Study Entry: Registration only

Previous interventions:

Colonoscopy and biopsy: patients will have five biopsy samples taken at their routine surveillance colonoscopy. Biopsy samples will be histologically analysed and methylation status will be determined.

Patients that have a positive methylation test but negative histology will undergo a second colonoscopy at 6 months and an additional five biopsy samples will be taken. Histology and methylation status will be determined.

Added 10/02/2017: A selection of patients that have a negative methylation test but negative histology will undergo a second colonoscopy at 6-9 months and five biopsy samples will be taken. Histology and methylation status will be determined.

Study Entry: Registration only

## **Intervention Type**

Procedure/Surgery

## **Primary outcome measure**

Current outcome measures as of 21/05/2018:

1. The presence of dysplasia in a mucosal biopsy taken at follow up colonoscopy at 4-12 months
2. The presence of hypermethylation and dysplasia in a mucosal biopsy taken at follow up colonoscopy at 4-12 months

Previous outcome measures as of 10/02/2017:

1. The presence of dysplasia in a mucosal biopsy taken at follow up colonoscopy at 6-9 months
2. The presence of hypermethylation and dysplasia in a mucosal biopsy taken at follow up colonoscopy at 6-9 months

Previous primary outcome measures:

1. The occurrence of dysplasia in mucosal biopsies taken at follow-up colonoscopy at 4-6 months in patients demonstrating hypermethylation (the positive predictive value)
2. The ability of hypermethylation to discriminate between patients with and without dysplasia in mucosal biopsies taken at follow up colonoscopy at 4-6 months (the diagnostic odds ratio)

## **Secondary outcome measures**

Current secondary outcome measure as of 10/02/2017:

Complications from colonoscopy

Previous outcome measures:

1. Correlation of dysplasia in mucosal biopsies with the presence of significant hypermethylation in nondysplastic biopsies taken at the same procedure
2. Correlation of dysplasia with hypermethylation in the same biopsy
3. Correlation of methylation in biopsies from initial and reference colonoscopy
4. Complications from colonoscopy

**Overall study start date**

13/11/2014

**Completion date**

31/05/2018

## **Eligibility**

**Key inclusion criteria**

Current inclusion criteria as of 21/05/2018:

1. Diagnosis of chronic ulcerative colitis with symptoms for over 10 years or diagnosis of primary sclerosing cholangitis (PSC)
2. On the surveillance programme and undergoing a routine colonoscopy during the study period
3. Willing to accept the possibility of an additional colonoscopy between 4 months and 12 months
4. No previous history of colorectal cancer
5. Aged 18 years or over
6. Be able and willing to provide written informed consent for the study

Previous inclusion criteria:

1. Diagnosis of chronic ulcerative colitis of over 10 years duration and disease beyond the splenic flexure or known primary sclerosing cholangitis
2. Scheduled for surveillance colonoscopy during study period
3. Willing to accept the possibility of an additional colonoscopy between 6 months and 9 months
4. No previous history of colorectal cancer
5. Aged 18 years or over
6. Be able and willing to provide written informed consent for the study

**Participant type(s)**

Patient

**Age group**

Adult

**Lower age limit**

18 Years

**Sex**

Both

**Target number of participants**

Planned Sample Size: 1000; UK Sample Size: 1000

**Total final enrolment**

818

**Key exclusion criteria**

Current exclusion criteria as of 21/05/2018:

1. Patients with fulminant colitis (if not PSC)
2. Bowel obstruction

3. Patients for whom it is not possible to undergo complete colonoscopies
4. Patients with proctitis only
5. Crohn's colitis patients (if no PSC)
6. Patients with unclassified IBD (if no PSC)
7. Patients with microscopic colitis (if no PSC)
8. Unable to give written informed consent
9. Aged under 18 years

Previous exclusion criteria:

1. Patients with fulminant colitis
2. Bowel obstruction
3. Patients in whom it is not possible to do complete colonoscopies
4. Patients with proctitis only
5. Crohn's colitis patients
6. Patients with unclassified IBD
7. Patients with microscopic colitis
8. Unable to give written informed consent
9. Less than 18 years of age

**Date of first enrolment**

13/11/2014

**Date of final enrolment**

31/03/2017

## **Locations**

**Countries of recruitment**

England

United Kingdom

**Study participating centre**

**Queen Elizabeth Hospital Birmingham**

United Kingdom

B15 2TH

**Study participating centre**

**Heartlands Hospital**

United Kingdom

B9 5SS

**Study participating centre**

**New Cross Hospital**  
United Kingdom  
WV10 0QP

**Study participating centre**  
**Russells Hall Hospital**  
United Kingdom  
DY1 2HQ

**Study participating centre**  
**Manor Hospital**  
United Kingdom  
WS2 9PS

**Study participating centre**  
**City Hospital, Birmingham**  
United Kingdom  
B18 7QH

**Study participating centre**  
**St Mark's Hospital**  
United Kingdom  
HA1 3UJ

**Study participating centre**  
**John Radcliffe Hospital**  
United Kingdom  
OX3 9DU

**Study participating centre**  
**St James's University Hospital**  
United Kingdom  
LS9 7TF

**Study participating centre**

**Royal Liverpool University Hospital**  
United Kingdom  
L7 8XP

**Study participating centre**  
**Addenbrooke's Hospital**  
United Kingdom  
CB2 0QQ

**Study participating centre**  
**Leicester General Hospital**  
United Kingdom  
LE5 4PW

**Study participating centre**  
**Salford Royal Hospital**  
United Kingdom  
M6 8HD

**Study participating centre**  
**Blackpool Victoria Hospital**  
United Kingdom  
FY3 8NR

**Study participating centre**  
**Bournemouth Royal Hospital**  
United Kingdom  
BH7 7DW

**Study participating centre**  
**Royal United Hospital Bath**  
United Kingdom  
BA1 3NG

**Study participating centre**



**West Middlesex University Hospital**  
United Kingdom  
TW7 6AF

**Study participating centre**  
**Basingstoke and North Hampshire Hospital**  
United Kingdom  
RG24 9NA

**Study participating centre**  
**Queen Alexandra Hospital**  
United Kingdom  
PO6 3LY

**Study participating centre**  
**St Mary's Hospital, Isle of Wight**  
United Kingdom  
PO30 5TG

**Study participating centre**  
**Basildon University Hospital**  
Basildon  
United Kingdom  
SS16 5NL

**Study participating centre**  
**Whipps Cross University Hospital**  
London  
United Kingdom  
E11 1NR

**Study participating centre**  
**James Cook University Hospital**  
Middlesbrough  
United Kingdom  
TS4 3BW

**Study participating centre**  
**Hull Royal Infirmary**  
Hull  
United Kingdom  
HU3 2JZ

**Study participating centre**  
**Princess Alexandra Hospital**  
Harlow  
United Kingdom  
CM20 1QX

**Study participating centre**  
**North Tyneside General Hospital**  
North Shields  
United Kingdom  
NE29 8NH

**Study participating centre**  
**Darlington Memorial Hospital**  
Darlington  
United Kingdom  
DL3 6HX

**Study participating centre**  
**Kettering General Hospital**  
Kettering  
United Kingdom  
NN16 8UZ

**Study participating centre**  
**King's Mill Hospital**  
Sutton-in-Ashfield  
United Kingdom  
NG17 4JL

**Study participating centre**  
**Luton and Dunstable University Hospital**  
Luton

United Kingdom  
LU4 0DZ

**Study participating centre**  
**St Mary's Hospital (Paddington)**  
London  
United Kingdom  
W2 1NY

**Study participating centre**  
**Queen Elizabeth Hospital (Gateshead)**  
Gateshead  
United Kingdom  
NE9 6SX

## Sponsor information

**Organisation**  
University of Birmingham

**Sponsor details**  
Edgbaston  
Birmingham  
England  
United Kingdom  
B15 2TT

-  
Researchgovernance@Contacts.bham.ac.uk

**Sponsor type**  
University/education

**Website**  
[www.birmingham.ac.uk](http://www.birmingham.ac.uk)

**ROR**  
<https://ror.org/03angcq70>

## Funder(s)

**Funder type**

Government

## Funder Name

NIHR Efficacy and Mechanism Evaluation; Grant Codes: EME/11/100/29

# Results and Publications

## Publication and dissemination plan

A final report will be submitted for publication in the NIHR Journals Library, as required by the contract for funding for the trial. It is also intended that papers on aspects of the study will be submitted to high-impact peer reviewed journals.

## Intention to publish date

31/05/2019

## Individual participant data (IPD) sharing plan

All data requests should be submitted to the Dr Laura Magill (e.l.magill@bham.ac.uk). Access to available anonymised data may be granted following review.

## IPD sharing plan summary

Available on request

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	01/01/2021	26/01/2021	Yes	No
<a href="#">HRA research summary</a>			28/06/2023	No	No