ISRCTN57402067 https://doi.org/10.1186/ISRCTN57402067

A study comparing cancer patients randomly assigned to be offered either genetic testing ‘at home’ or in hospital

Submission date
21/07/2023

Recruitment status
Recruiting

Registration date
26/07/2023

Overall study status
Ongoing

Last Edited
03/10/2024

Condition category
Cancer

[X] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
Patients who are diagnosed with womb, bowel, or ovarian cancer that fulfill NHS genetic testing criteria are recommended to have genetic testing to see if their cancer was related to an inherited gene alteration. Identifying carriers of alterations allows novel personalised cancer treatments, prevention of second cancers, and testing of family members for cancer screening and prevention. Genetic testing requires pre-test counselling to ensure patients are informed about the impact of having a genetic test and managing the result. This ‘genetic counselling’ has traditionally been provided by genetics services. However, it is now routinely being offered by cancer-treating teams in an approach called “mainstreaming”. Currently, the demand for genetic counselling and testing is swiftly increasing and capacity constraints requires the development of new scalable cost and resource-efficient implementation models. This study will assess if pre-test counselling and genetic testing can be done using a direct-to-patient model. Participants will receive genetic testing information on a smartphone app or website that they can access at home along with counselling support through a study telephone helpline. Those who agree to testing can consent via the app and perform testing at home with a saliva genetic testing kit delivered and returned by post. In the study this direct-to-patient approach is directly compared to the standard mainstreaming approach.

Who can participate?
Patients aged 18 years and over diagnosed with bowel, womb, or ovarian cancer who are eligible for NHS genetic testing

What does the study involve?
This study compares and evaluates the uptake of genetic testing using both approaches. The researchers also assess patient satisfaction, quality-of-life, and psychological outcomes following testing, using standardized or customized questionnaires over 1 year of follow-up. Clinician opinions will be elicited. Some patients will also be interviewed to assess attitudes, experiences, and impact on emotional wellbeing. An economic analysis will be undertaken to assess the cost-effectiveness of this approach for the NHS.

What are the possible benefits and risks of participating?
Patients that take part in the study will be offered genetic testing. Everyone who is offered genetic testing is given information about the potential risks or benefits of genetic testing. This may have implications for patients' cancer treatment, as they can be offered novel treatments which can improve outcomes. They can also opt for cancer prevention options to prevent other (second) cancers for themselves. Family members can also be tested and opt for screening or cancer prevention options.
Patients may be assigned to receive genetic testing information and genetic testing at home. They will not have to attend a hospital for this to take place. Taking part in this study will also help determine if this direct-to-patient approach of offering genetic testing is as acceptable for patients as standard genetic testing in clinics. Genetic testing is offered as part of standard NHS cancer care. Some people who receive positive genetic test results may feel frightened, sad or upset about their test result. A positive result may mean that patients find out that they have an increased risk of developing other cancers. This may be a result that they were not expecting.

Where is the study run from?
Wolfson Institute of Population Health, Queen Mary University of London (UK)

When is the study starting and how long is it expected to run for?
January 2022 to October 2028

Who is funding the study?
1. GlaxoSmithKline (UK)
2. Barts Charity (UK)
3. North East London Cancer Alliance (UK)
4. North Central London Cancer Alliance (UK)

Who is the main contact?
Prof. Ranjit Manchanda, bartsctu-detect-2@qmul.ac.uk

https://www.cancerresearchuk.org/about-cancer/find-a-clinical-trial/a-study-looking-at-two-different-ways-of-carrying-out-genetic-testing-for-people-with-cancer-detect

Study website
https://www.detect-2.co.uk/

Contact information

Type(s)
Principal Investigator

Contact name
Prof Ranjit Manchanda

ORCID ID
http://orcid.org/0000-0003-3381-5057

Contact details
Room 131, Centre for Prevention, Detection & Diagnosis
Wolfson Institute of Population Health
Charterhouse Square

London
United Kingdom
EC1M 6BQ
+44 (0)7979884575
r.manchanda@qmul.ac.uk

Additional identifiers

EudraCT/CTIS number
Nil known

IRAS number
319066

ClinicalTrials.gov number
Nil known

Secondary identifying numbers
IRAS 319066, CPMS 57783

Study information

Scientific Title
Direct-to-patient testing at cancer diagnosis for precision prevention-2

Acronym
DETECT-2

Study objectives
Patients at colorectal, endometrial, or ovarian cancer diagnosis have equal genetic testing uptake when offered direct-to-patient genetic testing at cancer diagnosis when compared to standard of care (mainstream genetic testing by members of cancer-treating teams)

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 29/08/2023, London - Brighton & Sussex Research Ethics Committee (2 Redman Place, Stratford , London, E20 1JQ, United Kingdom; +44 (0)207 104 8202; brightonandsussex.rec@hra.nhs.uk), ref: 23/LO/0677

Study design
National multicentre two-arm interventional randomized control trial

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Home, Hospital, University/medical school/dental school

Study type(s)
Other, Quality of life, Efficacy

Participant information sheet
Will be available from the DETECT-2 website after ethics review

Health condition(s) or problem(s) studied
Patients diagnosed with colorectal, endometrial, or ovarian cancer eligible for genetic testing for cancer susceptibility gene variants

Interventions
Eligible patients undergo block randomisation (1:1, stratified by cancer type) at recruitment to one of the two study arms:

1. Direct-to-patient testing: Patients will be provided information about genetic testing on a web-app decision aid. This decision aid will be accessible on smartphones, tablets, and web browsers and provide information about genetic testing, how it is performed, the possible results, and potential impacts. The web app will include the consent form for genetic testing allowing patients to accept or decline genetic testing electronically.

Patients consenting to genetic testing will receive a sample collection kit in the post, provide their sample at home using the saliva-collection kit, and post it back to the genetic testing laboratory to perform the testing.

Results will be returned by post and email, and patients will be supported throughout the entirety of this pathway by a telephone helpline staffed by study counsellors experienced in genetic counselling. Patients with positive or uncertain results from genetic testing will be given post-test counselling. Participating sites will refer these patients to their local genetics service(s) as per standard NHS practice/care followed.

2. Standard of care: Patients will receive pre-test counselling from a non-genetics clinician with consent for genetic testing, blood sample collection, and return of results undertaken in clinic as per routine hospital practice.

Intervention Type
Other

Primary outcome measure
Uptake of genetic testing between the direct-to-patient genetic testing arm versus standard mainstreaming. Uptake of genetic testing will be assessed by equivalency at the end of the study (each event is recorded at decision to test and equivalence is calculated at the end of the study).

Secondary outcome measures
1. Decision satisfaction or regret assessed by the 5-item Decision Regret Scale (O'Connor) assessed up to 1 year following return of genetic test results
2. Mental health and emotional outcomes measured by the Hospital Anxiety and Depression Scale, 1-item "I am satisfied with the decision I have made" 5-point Likert scale, Impact of Events

Scale, and Multidimensional Impact of Cancer Risk Assessment measured at baseline (if relevant) and up to 1 year following the return of genetic test results.
3. Participant quality-of-life assessed by EuroQol EQ-5D-5L questionnaire, validated cancer-specific and general cancer EORTC questionnaires at baseline and after genetic testing up to 1 year following the return of genetic test results
4. Attitudes, experiences, and impact on emotional health assessed by semi-structured qualitative interviews at 1-6 months after receiving the genetic testing result
5. Decision aid and telephone helpline use in direct-to-patient testing pathway assessed by participant usage statistics collected by the web app and telephone helpline usage case report forms for all participants in the DTP arm at decision to test, 21 days post result and 6 months post result
6. Variant prevalence measured by the number of pathogenic/likely-pathogenic variants/variant of uncertain significance detected divided by the number of people undergoing genetic testing at the end of the study
7. Cost-effectiveness of both testing approaches will be assessed by incremental cost-effectiveness ratio (ICER/QALY) between the two study arms assessed against the willingness-to-pay threshold stipulated by NICE (£20,000-30,000/QALY) at the end of the study
8. Clinician experience of direct-to-patient testing pathway measured using a bespoke clinician questionnaire administered to participating clinicians once a site is set up and operating

Overall study start date
01/01/2022

Completion date
01/10/2028

Eligibility

Key inclusion criteria
1. Adults diagnosed with endometrial cancer or colorectal cancer fulfilling NHS clinical genetic testing criteria for mismatch repair genes based on clinical or histo-pathological molecular profile
or
2. Adults diagnosed with high-grade epithelial ovarian cancer fulfilling NHS clinical genetic testing criteria

Participant type(s)
Patient

Age group
Adult

Lower age limit
18 Years

Sex
Both

Target number of participants
832

Key exclusion criteria
Current exclusion criteria as of 09/05/2024:

1. Patients who have had previous genetic testing for Lynch Syndrome, OC, or CRC genes
2. Patients whose family has a known pathogenic variant in a cancer susceptibility gene, which is part of the panel the patient is eligible for undergoing testing.
3. Unable to provide informed consent

_____

Previous exclusion criteria:

1. Patients who have had previous genetic testing for Lynch Syndrome, or OC genes
2. Patients whose family has a known pathogenic variant in one of the following genes: BRCA1, BRCA2, RAD51C, RAD51D, BRIP1, PALB2, MLH1, MSH2, MSH6, PMS2
3. Unable to provide informed consent

Date of first enrolment
25/04/2024

Date of final enrolment
30/09/2026

Locations

Countries of recruitment
England

Northern Ireland

Scotland

United Kingdom

Study participating centre
Barts Health NHS Trust
The Royal London Hospital
80 Newark Street
London
United Kingdom
E1 2ES

Study participating centre
University College London Hospitals NHS Foundation Trust
250 Euston Road

London
United Kingdom
NW1 2PG

Study participating centre
London North West University Healthcare NHS Trust
Northwick Park Hospital
Watford Road
Harrow
United Kingdom
HA1 3UJ

Study participating centre
Nottingham University Hospitals NHS Trust
Trust Headquarters
Queens Medical Centre
Derby Road
Nottingham
United Kingdom
NG7 2UH

Study participating centre
University Hospitals Bristol and Weston NHS Foundation Trust
Trust Headquarters
Marlborough Street
Bristol
United Kingdom
BS1 3NU

Study participating centre
Imperial College Healthcare NHS Trust
The Bays
St Marys Hospital
South Wharf Road
London
United Kingdom
W2 1BL

Study participating centre
Barking, Havering and Redbridge University Hospitals NHS Trust
Queen's Hospital

Rom Valley Way
Romford
United Kingdom
RM7 0AG

Study participating centre
University Hospital Southampton NHS Foundation Trust
Southampton General Hospital
Tremona Road
Southampton
United Kingdom
SO16 6YD

Study participating centre
Sandwell and West Birmingham Hospitals NHS Trust
City Hospital
Dudley Road
Birmingham
United Kingdom
B18 7QH

Study participating centre
Norfolk & Norwich University Hospitals NHS Foundation Trust
Colney Lane
Colney
Norwich
United Kingdom
NR4 7UY

Study participating centre
University Hospitals Sussex NHS Foundation Trust
Worthing Hospital
Lyndhurst Road
Worthing
United Kingdom
BN11 2DH

Study participating centre
University Hospitals Dorset NHS Foundation Trust
Management Offices
Poole Hospital

Longfleet Road
Poole
United Kingdom
BH15 2JB

Study participating centre
Portsmouth Hospitals University NHS Trust
Queen Alexandra Hospital
Portsmouth
United Kingdom
PO6 3LY

Study participating centre
Maidstone and Tunbridge Wells NHS Trust
The Maidstone Hospital
Hermitage Lane
Maidstone
United Kingdom
ME16 9QQ

Study participating centre
East Kent Hospitals University NHS Foundation Trust
Kent & Canterbury Hospital
Ethelbert Road
Canterbury
United Kingdom
CT1 3NG

Study participating centre
Oxford University Hospitals NHS Foundation Trust
John Radcliffe Hospital
Headley Way
Headington
Oxford
United Kingdom
OX3 9DU

Study participating centre
Manchester University NHS Foundation Trust
Cobbett House
Oxford Road

Manchester
United Kingdom
M13 9WL

Study participating centre
NHS Grampian
Summerfield House
2 Eday Road
Aberdeen
United Kingdom
AB15 6RE

Study participating centre
Belfast Health and Social Care Trust
Trust Headquarters
A Floor - Belfast City Hospital
Lisburn Road
Belfast
United Kingdom
BT9 7AB

Study participating centre
NHS Lothian
Waverley Gate
2-4 Waterloo Place
Edinburgh
United Kingdom
EH1 3EG

Study participating centre
Somerset NHS Foundation Trust
Trust Management
Lydeard House
Musgrove Park Hospital
Taunton
United Kingdom
TA1 5DA

Study participating centre
South Tyneside and Sunderland NHS Foundation Trust
Sunderland Royal Hospital

Kayll Road
Sunderland
United Kingdom
SR4 7TP

Study participating centre
County Durham and Darlington NHS Foundation Trust
Darlington Memorial Hospital
Hollyhurst Road
Darlington
United Kingdom
DL3 6HX

Study participating centre
University Hospitals of Derby and Burton NHS Foundation Trust
Royal Derby Hospital
Uttoxeter Road
Derby
United Kingdom
DE22 3NE

Study participating centre
Cardiff and Vale NHS Trust
Cardigan House
University Hospital of Wales
Heath Park
Cardiff
United Kingdom
CF14 4XW

Study participating centre
University Hospitals of Leicester NHS Trust
Leicester Royal Infirmary
Infirmary Square
Leicester
United Kingdom
LE1 5WW

Study participating centre
North Bristol NHS Trust
Southmead Hospital

Southmead Road
Westbury-on-trym
Bristol
United Kingdom
BS10 5NB

Sponsor information

Organisation
Queen Mary University of London

Sponsor details
Research Governance Operations Manager
Joint Research Management Office
Dept W, Research Services
69-89 Mile End Road
London
England
United Kingdom
E1 4UJ
+44 (0)20 7882 7275/6574
research.governance@qmul.ac.uk

Sponsor type
University/education

Website
http://www.qmul.ac.uk/

ROR
https://ror.org/026zzn846

Funder(s)

Funder type
Industry

Funder Name
GlaxoSmithKline

Alternative Name(s)
GlaxoSmithKline plc., GSK plc., GSK

Funding Body Type

Government organisation

Funding Body Subtype
For-profit companies (industry)

Location
United Kingdom

Funder Name
Barts Charity

Alternative Name(s)

Funding Body Type
Private sector organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
United Kingdom

Funder Name
North East London Cancer Alliance

Funder Name
North Central London Cancer Alliance

Results and Publications

Publication and dissemination plan
Planned publication in peer-reviewed including high-impact journals. Presentation in national and international conferences. Collaboration with relevant charities and patient groups for dissemination of research findings. Dissemination via digital and non-digital media.

Intention to publish date
01/10/2029

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study will be available upon request from Prof. Ranjit Manchanda (bartsctu-detect-2@qmul.ac.uk)

IPD sharing plan summary

Stored in non-publicly available repository, Available on request