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# SYMPLIFY – assessing a multi-cancer early detection test in individuals referred with signs and symptoms of cancer

**Submission date**
24/06/2021

**Recruitment status**
No longer recruiting

**Registration date**
13/08/2021

**Overall study status**
Completed

**Last Edited**
09/06/2026

**Condition category**
Cancer

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

## Plain English summary of protocol

Background and study aims
Cancer is easier to treat if it is diagnosed early. The NHS has developed rapid referral pathways to allow cancers to be diagnosed earlier, but this requires us to run tests on a lot more people than turn out to have cancers. This creates worry for some people, may not be the most efficient use of NHS resources, a significant proportion of cancers are diagnosed via other routes, often when it is too late to cure them.
We know that the DNA from cancers can be detected in the blood early on and want to use this fact to detect cancers earlier than existing pathways. In this study we want to check the performance of one such multi-cancer early detection (MCED) test.

Who can participate?
People sent to one of 5 rapid referral pathways by their GP because they have symptoms that might be due to cancer.

What does the study involve?
People taking part in the study will have their diagnostic test(s) in the normal way, but will also give a blood sample and permission for us to check their health records later to see if they were diagnosed with cancer and what appointments and other tests they had.
At the end of the study, having tested the blood with the MCED test, we will understand more about how well it works in this group of people, and expect that this will help us to design another trial where we check how to use the test to decide who needs rapid referral to look for a possible cancer and what tests to use following a positive MCED result.

What are the possible benefits and risks of participating?
If someone participates, they will be contributing to important research into how to detect cancer early. This may benefit people in the future. If the GalleriTM test turns out to detect cancer early, we may be able to treat more cancers more successfully
We will do everything we can to make sure participants in this study don’t experience any harm. They will need to give a blood sample. Although this process is generally safe, they may experience discomfort or light-headedness, and there is a small risk of infection. If blood needs

to be taken as part of their hospital care, the research blood sample will be taken at the same time.

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

When is the study starting and how long is it expected to run for?
February 2021 to November 2022

Who is funding the study?
Grail Bio UK Ltd

Who is the main contact?
Sarah Pearson, octo-symplify@oncology.ox.ac.uk

# Contact information

### Type(s)
Public

### Contact name
Mrs Sarah Pearson

### ORCID ID
https://orcid.org/0000-0001-5386-1953

### Contact details
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Old Road Campus Research Building
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OX3 7DQ
+44 (0)1865 227170
octo-symplify@oncology.ox.ac.uk

# Additional identifiers

### Integrated Research Application System (IRAS)
299310

### Central Portfolio Management System (CPMS)
49672

### Protocol serial number
OCTO_105

# Study information

## Scientific Title
SYMPLIFY – Observational study to assess a multi-cancer early detection test in individuals referred with signs and symptoms of cancer

## Acronym
SYMPLIFY

## Study objectives
To evaluate the performance of a multi-cancer early detection (MCED) test for the detection of invasive cancer and the identification of cancer signal origin

## Ethics approval required
Old ethics approval format

## Ethics approval(s)
Approved 22/06/2021, London Central REC (Barlow House, 3rd Floor, 4 Minshull Street, Manchester, M1 3DZ, UK; +44 (0)207 104 8225; londoncentral.rec@hra.nhs.uk), ref: 21/LO/0456)

## Primary study design
Observational

## Study design
Prospective observational multi-centre cohort

## Study type(s)
Diagnostic

## Health condition(s) or problem(s) studied
Early detection of cancer

## Interventions
Participants will be asked to give consent and provide a single blood sample during one visit to hospital. After that the participants have no further direct involvement, all follow-up is through collection of data. We collect data on participants at 3 and 12 months from registration into the study to find out whether or not they had a diagnosis of cancer. (We will also do a check at 9 months to collect any data that was not available at the 3 month timepoint).

## Intervention Type
Other

## Primary outcome(s)
At an interim analysis within 3 months of complete enrolment with complete analysis at 12 months of enrolment, measured by comparing blood sample analysis and patient notes:
1. Positive Predictive Value
2. Negative Predictive Value
3. Sensitivity
4. Specificity
5. Cancer signal origin accuracy

## Key secondary outcome(s)

At an interim analysis within 3 months of complete enrolment with complete analysis at 12 months of enrolment, measured by comparing blood sample analysis and patient notes:
1. Concordance between referral pathway selected by GP and CSOs identified by MCED
2. Number of true positives/number of patients referred within each referral pathway

### Completion date
30/11/2022

## Eligibility

### Key inclusion criteria
1. Participants referred to an RDC or relevant 2WW pathway to rule a cancer diagnosis in or out will be invited to participate in the study.
2. Willing and able to give informed consent for participation in the study.
3. Male or Female, aged 18 years or above.
4. Referred to a RDC or a gynae, lung, upper GI or lower GI cancer 2WW pathway.

### Participant type(s)
Patient

### Healthy volunteers allowed
No

### Age group
Mixed

### Lower age limit
18 Years

### Upper age limit
100 Years

### Sex
All

### Total final enrolment
6238

### Key exclusion criteria
1. Has a history of invasive or haematological malignancy diagnosed within the previous 3 years.
2. Has undergone definitive treatment for invasive or haematological malignancy in the last 3 years (adjuvant hormone therapy is permissible in this context).
3. Is taking cytotoxic or demethylating agents such as methotrexate.
4. Previous or current participation in another GRAIL study. “Participation” is defined as having signed consent and provided a blood sample.

### Date of first enrolment
05/07/2021

### Date of final enrolment

30/11/2021

# Locations

## Countries of recruitment
United Kingdom

England

Wales

## Study participating centre
**Southampton General Hospital**
University of Southampton and University Hospital Southampton NHS Foundation Trust
Tremona Road
Southampton
England
SO16 6YD

## Study participating centre
**Buckinghamshire Healthcare NHS Trust**
Mandeville Road
Aylesbury
England
HP21 8AL

## Study participating centre
**Churchill Hospital**
Oxford University Hospitals NHS Foundation Trust
Old Road
Headington
Oxford
England
OX3 7LE

## Study participating centre
**Royal Berkshire Hospital**
Royal Berkshire NHS Foundation Trust
London Road
Reading
England
RG1 5AN

**Study participating centre**
**Basildon and Thurrock University Hospital**
Mid and South Essex NHS Foundation Trust
Nethermayne
Basildon
England
SS16 5NL

**Study participating centre**
**Torbay & South Devon Foundation Trust**
-
Torquay
England
TQ2 7AA

**Study participating centre**
**Royal Cornwall Hospital**
Royal Cornwall Hospital NHS Trust
Truro
England
TR1 3HD

**Study participating centre**
**Royal Free Hospital**
Royal Free London NHS Foundation Trust
Pond Street
London
England
NW3 2QG

**Study participating centre**
**University College London Hospital**
University College London Hospitals NHS Foundation Trust
250 Euston Road
London
England
NW1 2PG

**Study participating centre**

**North Middlesex University Hospital NHS Trust**
-
London
England
N18 1QX

**Study participating centre**
**York Hospital**
York & Scarborough Teaching Hospitals NHS Foundation Trust
York
England
YO31 8HE

**Study participating centre**
**Hull University Teaching Hospitals NHS Trust**
-
Hull
England
HU16 5JQ

**Study participating centre**
**Wales - multiple hospitals under one lead site (Velindre NHS Trust)**
-
Cardiff
Wales
CF14 2TL

**Study participating centre**
**Chelsea and Westminster Hospital NHS Foundation Trust**
Chelsea & Westminster Hospital
369 Fulham Road
London
England
SW10 9NH

# Sponsor information

**Organisation**
University of Oxford

**ROR**
https://ror.org/052gg0110

# Funder(s)

**Funder type**
Industry

**Funder Name**
Grail Bio UK Ltd

# Results and Publications

**Individual participant data (IPD) sharing plan**
All requests for secondary use of data should be directed to cancer@phc.ox.ac.uk.

**IPD sharing plan summary**
Available on request

**Study outputs**

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---|---|---|---|---|---|
| Results article | | 20/06/2023 | 26/06/2023 | Yes | No |
| HRA research summary | | | 28/06/2023 | No | No |
| Other publications | Validity and timeliness comparison of cancer data obtained on-site during SYMPLIFY with data from English and Welsh national cancer registries | 09/10/2024 | 17/10/2024 | Yes | No |
| Other publications | An Exploratory Retrospective Analysis of the SYMPLIFY Study | 28/05/2026 | 09/06/2026 | Yes | No |
| Plain English results | | | 08/12/2025 | No | Yes |
| Preprint results | Two-year follow-up | 21/10/2025 | 12/02/2026 | No | No |
| Study website | | 11/11/2025 | 11/11/2025 | No | Yes |