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Biomarkers for ovarian cancer risk assessment

Submission date 08/06/2018	**Recruitment status** No longer recruiting	[_] Prospectively registered [_] Protocol [_] Statistical analysis plan [X] Results [_] Individual participant data
Registration date 13/06/2018	**Overall study status** Completed	
Last Edited 31/08/2022	**Condition category** Cancer	

Plain English summary of protocol
https://www.cancerresearchuk.org/about-cancer/find-a-clinical-trial/a-study-looking-at-a-blood-test-to-diagnose-ovarian-cancer

Contact information

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Scientific

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Additional identifiers

Integrated Research Application System (IRAS)
218202

Study information

Scientific Title
Utility of biomarkers for ovarian cancer risk assessment in primary care: a pilot study

Study objectives
Primary objective: To determine the specificity of HE4 and CA125 in a symptomatic primary care population.
Secondary objectives: To estimate the sensitivities of HE4 and CA125 in a symptomatic primary care population.

The trialists hypothesize that HE4 will add to the diagnostic accuracy of CA125 in a symptomatic primary care population. They aim to determine the specificity and sensitivity of HE4 as a diagnostic biomarker for ovarian cancer. They will look at its independent performance and its performance in conjunction with CA125.

Ethics approval required
Old ethics approval format

Ethics approval(s)
HRA: South Central - Oxford B Research Ethics Committee, 21/12/2017, ref: 17/SC/0667

Primary study design
Observational

Study design
Single-centre observational case series pilot study

Study type(s)
Diagnostic

Health condition(s) or problem(s) studied
Ovarian cancer

Interventions
Study setting: Central Manchester University Hospitals NHS Foundation Trust (CMFT). This centre receives around 900 CA125 samples from primary care each year.

Study duration: Total: 20 months
Phase 1: 16 months
Phase 2: 20 months

Methods overview
The study consists of 2 overlapping phases:

Phase 1: HE4 testing
GP requested CA125 samples sent to MFT for processing over a 16 month period will undergo additional testing for HE4. The study will not interfere with laboratory testing of CA125 and CA125 results will be available to GPs as normal.
Following standard CA125 testing by the laboratory team, samples will be scavenged by a member of the MFT laboratory team and stored at -40 degrees in the MFT laboratory. Samples will be tested in batches on a weekly basis by a lab biochemist using Fujirebio HE4 ELISA kits. Following testing, samples will then be retested on the same day for HE4 on the Fujirebio Lumipulse G600 II machine. Samples will then be disposed of in compliance with MFT laboratory protocols.
If CA125 is within the normal range and HE4 is elevated on the ELISA kit, a letter will be sent by one of the Gynaecological Oncology Medical Secretaries to the patient and their GP, informing them of the result and providing information on the HE4 test. GPs will be asked to discuss the result with the patient and to offer an appointment with Dr Emma Crosbie at St Mary's for further discussion of the result. Pseudo-anonymised CA125 and HE4 results will be passed to the research team (only the lab and secretarial team will be able to identify patients from this data) as will unlinked hospital trust specific 'district numbers', to allow screening in phase 2.

Phase 2: Determination of outcomes
For the 16 months of phase 1 and for an additional 4 months, gynaecology referral lists, clinic lists and MDT records at MFT will be monitored to identify patients, by district number, who underwent CA125 and HE4 testing in phase 1 and who were referred by their GP to gynaecology. Patients with elevated HE4 and normal CA125 who were referred to Dr Emma Crosbie's clinic in phase 1 will be included. These patients will be approached, wherever possible during clinic appointments or inpatient stays, and consent sought for the study team to perform a search of patient hospital notes. In the event that the patient has been identified in Phase 1 as having a raised CA125 or HE4 but is either being managed in the community or referred to an alternate speciality or hospital, the patient will be contacted by telephone and/or by letter, asking for permission to use their data for research. A consent form and participant information sheet will be sent to the patient with a stamped and addressed envelope to return. This will provide us with consent to search their notes to identify outcome data. Hospital notes will be hand searched to identify predetermined information including presenting symptoms, investigations, surgical outcomes and pathology reports, final diagnosis and cancer stage where applicable. These data will be utilised in biomarker evaluation. Patients who are seen at MFT in phase 2 will be asked to provide another blood sample for research purposes.

Intervention Type
Other

Primary outcome(s)
Specificity of HE4, at different cut off thresholds, alone and in combination with CA125 for ovarian cancer detection in a symptomatic primary care population

Key secondary outcome(s)
1. Sensitivity of HE4 at different cut off thresholds, alone or in combination with CA125 for ovarian cancer detection in a symptomatic primary care population
2. ELISA versus lumipulse HE4 levels

Completion date
05/03/2021

Eligibility

Key inclusion criteria
Phase 1:
1. Women undergoing GP requested CA125 testing where the sample is processed by MFT
2. Aged over 18

Phase 2:
1. Women who underwent initial CA125 and HE4 testing in phase 1 who are subsequently referred for further tests or treatment
2. Ability to provide informed consent
3. Aged over 18 years

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Sex
Female

Total final enrolment
1375

Key exclusion criteria
Phase 2:
Inability to provide informed consent

Date of first enrolment
03/04/2018

Date of final enrolment
03/08/2019

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Saint Mary's Hospital, Manchester Foundation Trust
United Kingdom
M13 0JH

Sponsor information

Organisation
University of Manchester

ROR
https://ror.org/027m9bs27

Funder(s)

Funder type
Charity

Funder Name
Wellbeing of Women

Alternative Name(s)

Funding Body Type
Private sector organisation

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

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
The trialists will make anonymised individual patient data available upon reasonable request for other ethically approved research studies once they have reported their study findings in an academic publication.

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		24/04/2022	04/07/2022	Yes	No
Results article		09/05/2021	31/08/2022	Yes	No
HRA research summary			26/07/2023	No	No