

# Breast Cancer - anti-progestin prevention study 1

<b>Submission date</b> 01/07/2015	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 01/07/2015	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 23/10/2018	<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-study-of-ulipristal-acetate-to-prevent-breast-cancer-bc-apps1>

## Contact information

### Type(s)

Public

### Contact name

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### Contact details

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## Additional identifiers

### ClinicalTrials.gov (NCT)

NCT02408770

### Protocol serial number

19209

# Study information

## Scientific Title

A pilot prevention study of the effects of the anti-progestin Ulipristal acetate (UA) on surrogate markers of breast cancer risk

## Study objectives

1.4 million women worldwide are diagnosed with invasive breast cancer (BC) each year and over a third die from their disease. Uptake and adherence to licensed chemo-preventative agents, tamoxifen and raloxifene, is low due in part to their adverse toxicity profiles. There is an urgent need for effective, well tolerated and safe breast cancer chemo-preventative agents. Endogenous progesterone induces proliferation of the normal mammary stem/progenitor cell population and exogenous progesterone is well known to increase the risk of postmenopausal breast cancer. Taken together these data suggest antagonism of PgR signaling may be a fruitful approach in the prevention of BC. Ulipristal acetate (UA) is a well-tolerated anti-progestin already licensed for the treatment of benign uterine fibroids. This project will, for the first time, determine the effects of the PgR antagonist UA on the normal breast in women at increased risk of BC and correlate molecular with imaging (MRI) effects.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

UK National Research Ethics Service: North West – Greater Manchester South Committee, provisional approval 18/06/2015, ref: 15/NW/0478

## Study design

Non-randomised; Interventional; Design type: Prevention

## Primary study design

Interventional

## Study type(s)

Prevention

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

Malignant neoplasm of breast

## Interventions

1. Treatment: Ulipristal acetate 5mg daily for 12 weeks
2. Vacuum assisted breast biopsies before and on treatment
3. Imaging, MRI and USS elastography before and on treatment

## Intervention Type

Drug

## Phase

Phase II

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

Ulipristal acetate

**Primary outcome(s)**

The change in the proliferation of normal breast epithelium, assessed by Ki67, from baseline to 3 months on treatment with ulipristal acetate

**Key secondary outcome(s)**

1. The changes in expression of individual genes and key pathways induced by UA therapy at baseline and after 3 months of therapy
2. The change in tissue stiffness and collagen organisation induced by UA therapy at baseline and after 3 months of therapy
3. The changes in key stem cell and PgR target proteins induced by UA therapy at baseline and after 3 months of therapy
4. The proportion and type of clonogenic cells in the breast following treatment with UA at baseline and after 3 months of therapy
5. MRI imaging biomarkers of anti-progestin (UA) activity at baseline and after 3 months of therapy
6. The side effect profile of UA in this patient population at baseline and then monthly to 4 months

**Completion date**

30/06/2019

## **Eligibility**

**Key inclusion criteria**

1. Premenopausal females aged between 25 and 45 years
2. Regular menses defined as date of onset of last menstrual period +/- 3 days of expected
3. Known BRCA1 or BRCA2 mutation or moderate to high risk of developing BC defined as >17% lifetime risk from age 20 or >3% risk between 40-50 years
4. Ovulatory menstrual cycles defined as serum progesterone =15nmol 7 days prior to expected onset of menses
5. eGFR = 40mls/min/1.73m<sup>2</sup> in view of requirement for gadolinium contrast MRI scans
6. Willing and able to provide informed consent to undergo all trial procedures

**Participant type(s)**

Healthy volunteer

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

**Key exclusion criteria**

1. Personal history of breast, uterine, cervical or ovarian cancer
2. Breast feeding within the last 3 months

3. Pregnant or planning for pregnancy in the next 6 months. Pregnancy must be excluded with serum  $\beta$ hCG <5nmol during screening.
4. Known hypersensitivity to radiological contrast media or to ulipristal acetate or any of its excipients (microcrystalline cellulose, mannitol, croscarmellose sodium, talc, magnesium stearate)
5. Current treatment with:
  - 5.1. Anti-estrogens (e.g. tamoxifen or raloxifene), GnRH analogue therapy (e.g. goserelin or buserelin) or hormonal contraceptives including androgens such as cyproterone acetate. Such treatments must have been stopped for at least 6 months and regular menstrual cycles resumed
  - 5.2. Corticosteroids at any dose, these must have been stopped for at least 1 month with low likelihood that retreatment will be required
  - 5.3. Antiplatelet or anticoagulant therapy – must have been stopped for at least 7 days and clotting be at satisfactory levels
  - 5.4. Moderate or potent inhibitors of CYP3A4
  - 5.5. Potent inducers of CYP3A4
6. APTT and PT outside the normal institutional ranges. Hb <100g/l and platelet count <150x10<sup>9</sup>/l
7. Serum creatinine, bilirubin, ALT, ALP or LDH >1.5xULN
8. Contraindications to MRI, such as intracranial aneurysm clips, implanted electrical devices and intra-ocular metallic foreign bodies
9. Co-morbidity that would put the patient at increased risk such as recognised bleeding diathesis, moderate to severe hepatic impairment, moderate or severe renal impairment (eGFR <40 ml/min/1.73m<sup>2</sup>), severe asthma not adequately controlled with corticosteroids (note steroid usage precludes trial entry)
10. Prior breast enhancement/augmentation surgery
11. Genital bleeding of unknown aetiology

**Date of first enrolment**

01/09/2015

**Date of final enrolment**

31/08/2016

## **Locations**

**Countries of recruitment**

United Kingdom

England

**Study participating centre**

**University Hospital of South Manchester**

Genesis Prevention Centre

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# Sponsor information

## Organisation

University Hospital of South Manchester

## ROR

<https://ror.org/00he80998>

# Funder(s)

## Funder type

Charity

## Funder Name

Breast Cancer Campaign

## Alternative Name(s)

## 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

## IPD sharing plan summary

Stored in repository

## 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="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes