OXYBUTYNIN OR VENLAFAXINE FOR HOT FLUSHES IN WOMEN WHO CANNOT OR PREFER NOT TO USE HORMONE REPLACEMENT THERAPY: RANDOMISED TRIAL AND ECONOMIC EVALUATION (BLUSH)

Most menopausal women experience vasomotor symptoms (VMS), which include hot flushes and night sweats. Hot flushes can have a significant impact on people's lives – they can affect sleep, work, relationships, and overall life quality. The economic impact of menopause remains inconclusive, no data on the personal economic margin costs for UK women.

Hormone replacement therapy (HRT) is the most effective treatment for hot flushes. However, some women are: unable to take HRT because of other health conditions, such as breast cancer or choose not to take HRT because of concerns about the potential harms/previous experience.

VMS, such as hot flushes and night sweats, are common in menopausal women and can be more intense and frequent in women receiving breast cancer treatment, leading to reduced compliance. However, non-hormonal drugs for VMS are less effective and have side-effects.

The research question for this trial is whether oxybutynin is more effective and cost-effective compared to venlafaxine in controlling vasomotor symptoms (VMS) in 2 groups of menopausal women:

1) **Group A** - Those who have contraindications to hormone replacement therapy (HRT)
2) **Group B** - Those who prefer not to use it.

This trial will be **a multi-centre, randomized, open, parallel, superiority trial with an internal pilot and a parallel economic evaluation**. The trial will be conducted with two groups of participants in parallel under a single master protocol, with a **total of 960 participants**, **480 in Group A** (cannot use HRT) and **480 in Group B** (prefer not to use HRT). Participants will be randomized to receive either

oxybutynin (extended-release, oral, daily, starting dose 5mg, max 15mg) or venlafaxine (modified-release, oral, daily, starting dose 37.5mg, max 75mg) for a **treatment period of 12 months**.

Group A		**Group B**	
Inclusion Criteria	**Exclusion Criteria**	**Inclusion Criteria**	**Exclusion Criteria**
• Women for whom HRT is contraindicated, e.g. women with breast cancer treated with adjuvant endocrine therapy. • ≥5 moderate/ severe menopausal hot flushes daily average, collected over a week, prior to randomisation. • Written/electronic informed consent.	• Age >65 years. • Contraindications to either trial treatment. • Pregnant or planning on becoming pregnant or breastfeeding. • Breast Cancer patients with advanced stage cancer. • Taking other pharmacological treatment for VMS*.	• Diagnosis of menopause or perimenopause. • Age > 45 years. • ≥5 moderate/ severe menopausal hot flushes daily average, collected over a week, prior to randomisation. • Not intending to use HRT within 12 months. • Written/electronic informed consent.	• Age >65 years. • Contraindications to either trial treatment. • Pregnant or planning on becoming pregnant or breastfeeding. • Transwomen. • Women already on HRT or using hormonal treatment for gynaecological conditions or contraception*.

The primary outcome measured over one week, at week 12, will be the average hot flush score (frequency x severity).

Recruitment and Timeline

Recruitment will last a total of 2.5 years, beginning **September 2023.**

Please find below a flow chart of Trial activity (Page 3).

To express an interest for your site to take part, please complete a **site selection questionnaire .**
The purpose of the questionnaire is to determine the suitability of your site for this trial. It is not an agreement to conduct the trial.

If you have any queries or would like to know more, you can contact the research team at
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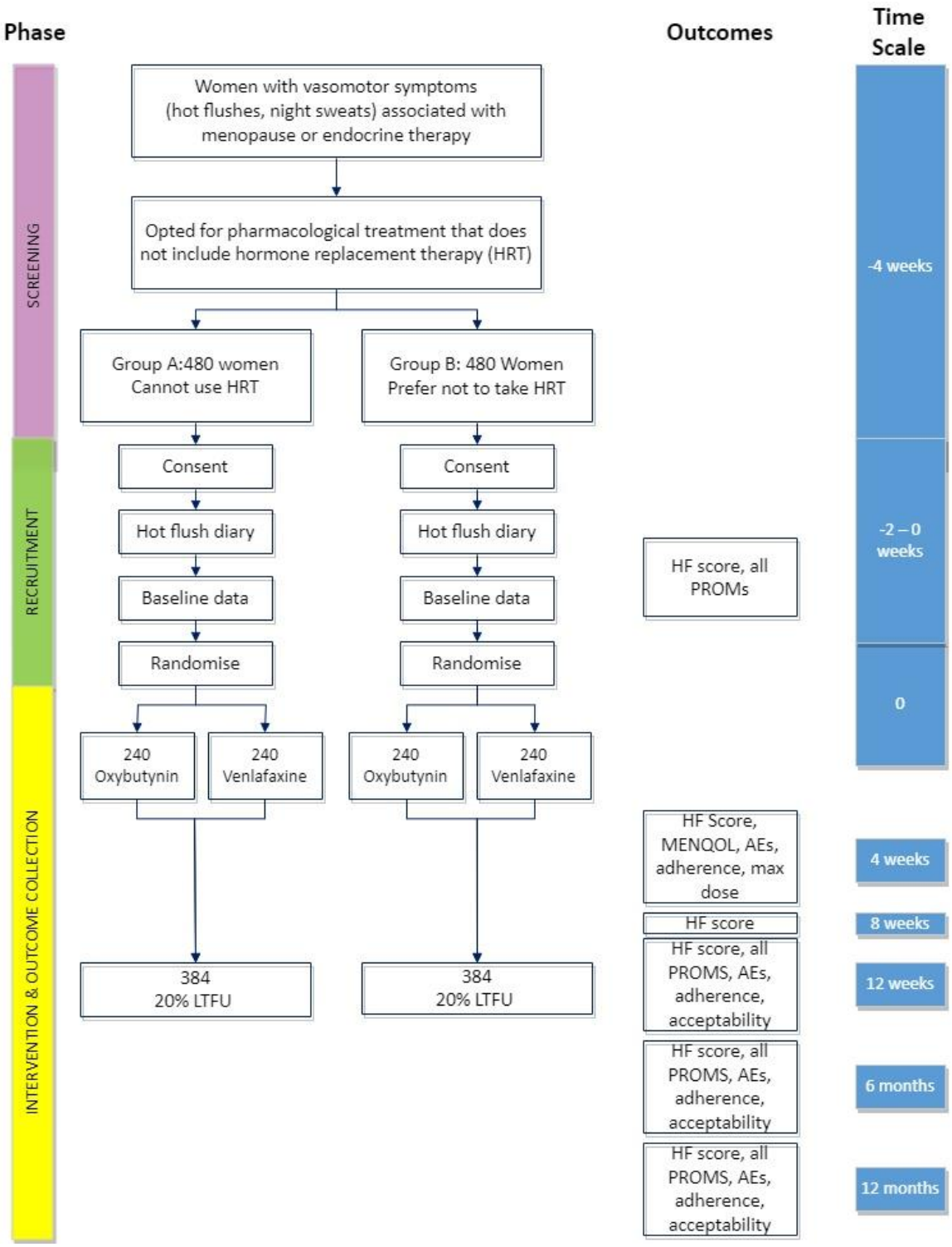
Telephone 0115 7484040 Trial manager Kate Bowker


Phase
Outcomes
Time Scale
SCREENING
RECRUITMENT
INTERVENTION & OUTCOME COLLECTION
Women with vasomotor symptoms (hot flushes, night sweats) associated with menopause or endocrine therapy
Opted for pharmacological treatment that does not include hormone replacement therapy (HRT)
Group A:480 women Cannot use HRT
Group B: 480 Women Prefer not to take HRT
Consent
Hot flush diary
Baseline data
Randomise
240 Oxybutynin
240 Venlafaxine
384 20% LTFU
HF score, all PROMs
HF Score, MENQOL, AEs, adherence, max dose
HF score
HF score, all PROMS, AEs, adherence, acceptability
-4 weeks
-2 – 0 weeks
0
4 weeks
8 weeks
12 weeks
6 months
12 months