Menopause: Everything we know (or not) about women living with HIV
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@Prime_UCL
BACKGROUND
Background

Number of women accessing HIV care by age group, 2006-2016

Source: Zheng Yin, Public Health England, personal communication, 05/10/17.
• Relatively under-researched

• US studies predominate

• Earlier age and possibly increased symptoms\textsuperscript{1}

• Symptoms under-recognised\textsuperscript{2,3}

• Use of HRT $\sim$10\%\textsuperscript{4,5}

Source: 1. Tariq S et al. (2016); 2. Johnson TM et al. (2008); 3. Cejtin HE et al. (2005); 4. Fantry LE et al. (2005); 5. Samuel M et al. (2013)
Co-existing factors

Ovarian dysfunction

Chronic inflammation

Chronic illness

Opportunistic infection

ART

DIFFERENCES IN HIV
• Increased vasomotor symptoms\textsuperscript{1,2,3}

• Increased psychological symptoms\textsuperscript{3,4,5}

• No difference in cognition\textsuperscript{6}

• No difference in sexual function\textsuperscript{7,8}

• Increased risk of osteoporosis and fractures\textsuperscript{9,10}

• Increased cardiovascular risk\textsuperscript{11}

Quality of life

Engagement in care

Adherence

Health and wellbeing
Quality of life

Adherence

Engagement in care
What is the impact of the menopause transition on the health and wellbeing of women living with HIV?
Design of the PRIME Study

**Phase 1**
3 focus group discussions with women living with HIV aged ≥ 45.

24 women attended one of the focus groups in June–August 2015.

Survey of menopause management in HIV among GPs.

**Phase 2**
Recruitment of women living with HIV aged 45–60 from 21 HIV clinics across England. Women did not have to have gone through the menopause to take part.

1,999 women approached; 1,312 were eligible to take part; 1,059 agreed to take part. We have 869 completed questionnaires.

**Phase 3**
Interviews with 20 women who completed questionnaires in Phase 2.

- to explore women’s experiences in more depth
- to tell us if there is anything we missed.

Prime Study: Results
Findings: Description of PRIME Study participants

Characteristics of 869 PRIME Study participants

Median age (interquartile range)

49

(47 48 50 51 52 53)
Characteristics of 869 PRIME Study participants

Ethnicity

- Black African: 72%
- White British: 19%
- Other: 8%
Characteristics of 869 PRIME Study participants

Last CD4 count (cells/mm³)

- <200: 7%
- 200-500: 25%
- >500: 68%

On antiretroviral therapy

- Yes: 98%
- No: 2%

Last HIV viral load

- Detectable: 12%
- Undetectable: 88%
Findings: Description of PRIME Study participants

The majority of PRIME Study participants were either peri- or postmenopausal

- Premenopausal (regular periods): 21%
- Perimenopausal (irregular periods within past 2 years): 44%
- Postmenopausal (no periods for 12 months or more): 35%
Findings: Menopausal symptoms in women living with HIV

Prevalence of menopausal symptoms

- **Somatic**
  - hot flushes, palpitations, joint and muscle discomfort, sleep disturbance
  - 89%

- **Urogenital**
  - vaginal dryness, urinary tract symptoms, sexual problems
  - 68%

- **Psychological**
  - depression, anxiety, irritability, exhaustion
  - 78%

*It leaves you feeling ‘what is going on here’? Is it HIV? Is it the menopause?*

If I wasn’t coping with HIV and I was dealing with menopause alone, maybe it would be easier. I’ve got to cope with the two at the same time. If you haven’t slept for the whole night and you need to take medication...it just gets so annoying.

Source: MacGregor Read J et al. “You’re suffering all these things and you keep going backwards and forwards”: experiences of the menopause among women living with HIV in the United Kingdom. 21st International AIDS Conference (AIDS 2016); Durban, South Africa 2016.
Findings: Menopausal symptoms in women living with HIV

Psychological distress and menopausal symptoms

- 53% Yes, Somatic symptoms
- 26% No
- 58% Yes, Urogenital symptoms
- 19% No

“My menopause is now interrupting my life quite seriously. I think I have gone into a depression. My sleeping pattern is so horrendous and so chaotic that I feel very emotional.”

Source: Tariq S et al. Menopausal symptoms are associated with psychological distress in HIV+ women. Conference on Retroviruses and Opportunistic Infections; 4-7 March; Boston, USA 2018.
Severe menopausal symptoms were associated with sub-optimal adherence (AOR 2.47, p=0.008)

Source: Solomon D et al. The association between severe menopausal symptoms and adherence to antiretroviral therapy in women living with HIV. AIDS 2018; 23-27 July; Amsterdam, 2018.
Women living with HIV reported ≥1 sexual problems lasting ≥3 months in the past year.

Women without HIV reported ≥1 sexual problems lasting ≥3 months in the past year.

Source: Toorabally N et al. Association of HIV status with sexual function in women aged 45-60. Conference on Retroviruses and Opportunistic Infections (CROI); March 4-7; Boston, USA 2018.
# HIV status and Sexual Function

<table>
<thead>
<tr>
<th></th>
<th>Natsal-3 (HIV-) N=1677</th>
<th>PRIME (HIV+) N=312</th>
<th>Adjusted odds ratio(^a) (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lacked interest in sex</td>
<td>38%</td>
<td>52%</td>
<td>2.30 (1.30-4.07)</td>
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<tr>
<td>Lacked enjoyment in sex</td>
<td>13%</td>
<td>32%</td>
<td>3.50 (1.94-6.30)</td>
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<tr>
<td>Felt anxious during sex</td>
<td>4%</td>
<td>16%</td>
<td>4.01 (2.24-7.16)</td>
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<tr>
<td>Physical pain due to sex</td>
<td>8%</td>
<td>15%</td>
<td>2.71 (1.83-4.01)</td>
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<tr>
<td>No arousal during sex</td>
<td>9%</td>
<td>29%</td>
<td>3.17 (1.84-5.44)</td>
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<tr>
<td>No orgasm/long time to reach orgasm</td>
<td>15%</td>
<td>31%</td>
<td>2.82 (1.86-4.28)</td>
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<tr>
<td>Reached orgasm too quickly</td>
<td>2%</td>
<td>7%</td>
<td>2.20 (0.67-7.26)</td>
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<tr>
<td>Vaginal dryness</td>
<td>17%</td>
<td>28%</td>
<td>2.44 (1.47-4.06)</td>
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<tr>
<td><strong>Overall sexual function</strong></td>
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<tr>
<td>Low sexual function</td>
<td>54%</td>
<td>69%</td>
<td>2.44 (1.49-4.00)</td>
</tr>
</tbody>
</table>

\(^a\)Adjusted for ethnicity, age, number of chronic conditions and depression

Source: Toorabally N *et al.* Association of HIV status with sexual function in women aged 45-60. Conference on Retroviruses and Opportunistic Infections (CROI); March 4-7; Boston, USA 2018.
Findings: Managing menopausal symptoms

Low use of MHT and vaginal estrogens

Women with somatic symptoms who reported currently using MHT: 8%

Women with urogenital symptoms who reported currently using vaginal oestrogen: 3%

## PRIMARY CARE MANAGEMENT

<table>
<thead>
<tr>
<th>How confident do you feel managing menopause symptoms?</th>
<th>HIV-negative women, n (%)</th>
<th>HIV-positive women, n (%)</th>
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<tbody>
<tr>
<td>Confident</td>
<td>85 (97)</td>
<td>40 (47)</td>
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<tr>
<td>Not confident</td>
<td>3 (3)</td>
<td>46 (53)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Where should menopause be routinely managed?</th>
<th>HIV-negative women, n (%)</th>
<th>HIV-positive women, n (%)</th>
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</thead>
<tbody>
<tr>
<td>Mainly within primary care</td>
<td>84 (96)</td>
<td>40 (53)</td>
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<tr>
<td>By a specialist service</td>
<td>3 (3)</td>
<td>17 (22)</td>
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<tr>
<td>HIV specialist teams</td>
<td>n/a</td>
<td>18 (24)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (1)</td>
<td>1 (1)</td>
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</tbody>
</table>

[The HIV doctors] are telling us to take everything to the GP...the GP then tells you to take it back to your HIV consultant. It’s very frustrating if you’re suffering all these things, and you keep going backwards and forwards

Source: MacGregor Read J et al. “You’re suffering all these things and you keep going backwards and forwards”: experiences of the menopause among women living with HIV in the United Kingdom. 21st International AIDS Conference (AIDS 2016); Durban, South Africa 2016.
Findings: Managing menopausal symptoms

47% of women said they did not have sufficient information about the menopause.

It would be good to hear about [menopause] earlier, then we would start noticing it in our bodies. It would be a thing that we know. Not a kind of shock. You don’t know what is happening to you. Come and teach us. Tell us more.

Forthcoming work

- Predictors of age at menopause and symptoms
- Menopausal symptoms and retention in HIV care
- Menopausal status and symptoms and quality of life
- Attitudes towards menopause among women living with HIV
- Experiences of menopause in women living with HIV
- Ovarian biomarker sub-study
Key findings

• High levels of menopausal symptoms
• Impact on mental health and sexual well-being
• Limited use of HRT and vaginal oestrogens
• Nearly half did not have enough information
• GPs lack confidence in managing HIV and menopause
Management
• Provide information including healthy behaviour change

• Annual review of menstrual cycle

• Menopausal symptom assessment aged >45

• HRT as per NICE guidelines (drug interactions)

• Bone screening (3 yearly FRAX age>50 or postmenopausal)

• CVD screening (yearly Qrisk 3 age >40)

• Aim for management within primary care
# HRT Treatment Selector

Charts revised November 2017. Full information available at www.hiv-druginteractions.org

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<th>Progestins (HRT)</th>
<th>ATV/r</th>
<th>DRV/r</th>
<th>LPV/r</th>
<th>EFV</th>
<th>ETV</th>
<th>NVP</th>
<th>RPV</th>
<th>MVC</th>
<th>DTG</th>
<th>RAL</th>
<th>ABC</th>
<th>FTC</th>
<th>3TC</th>
<th>TDF</th>
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**Colour Legend**
- No clinically significant interaction expected.
- These drugs should not be coadministered.
- Potential interaction which may require a dosage adjustment or close monitoring.
- Potential interaction predicted to be of weak intensity. No *apriori* dosage adjustment is recommended.

**Text Legend**
- ↑ Potential increased exposure of the hormone
- ↓ Potential decreased exposure of the hormone
- ↔ No significant effect

*a* Monitor for signs of estrogen deficiency.

*b* The clinical significance of increased progestin exposure in terms of overall risk of deep vein thrombosis, pulmonary embolism, stroke and myocardial infarction in postmenopausal women receiving substitution hormones is unknown.
Take Home Messages

• Ageing cohort

• Health consequences of menopause

• Opportunity for preventative healthcare

• British HIV association guidelines and standards

• Expanding area for research
• Funders: NIHR, BHIVA, Wellcome Trust

• The PRIME Study Team: Fiona Burns, Richard Gilson, Alexandra Rolland, Caroline Sabin, Tuhina Bhattacharyya & Saliha Abbassi

• All our study participants and participating clinics