

# HRT: managing HIV through the menopause

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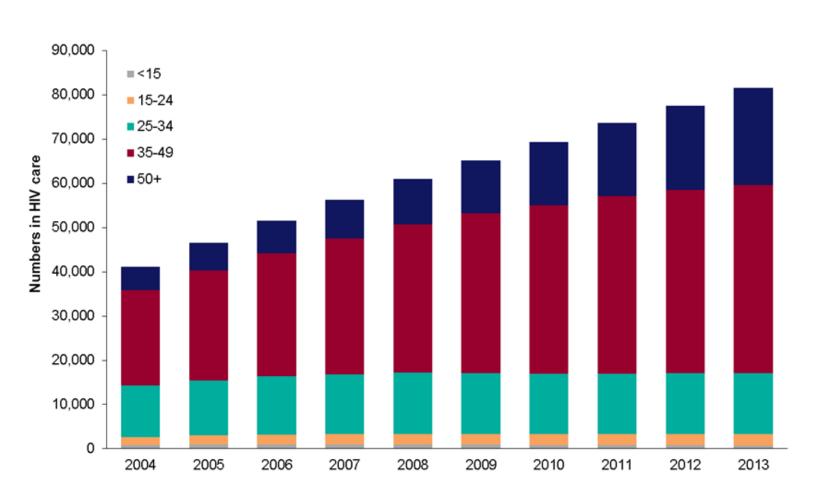
### **O**UTLINE



- Epidemiology
- Menopause in the general population
- Menopause in HIV-positive women
- Management
  - HRT
  - Other considerations

## NUMBER OF PEOPLE ACCESSING HIV CARE BY AGE GROUP, 2003-2013



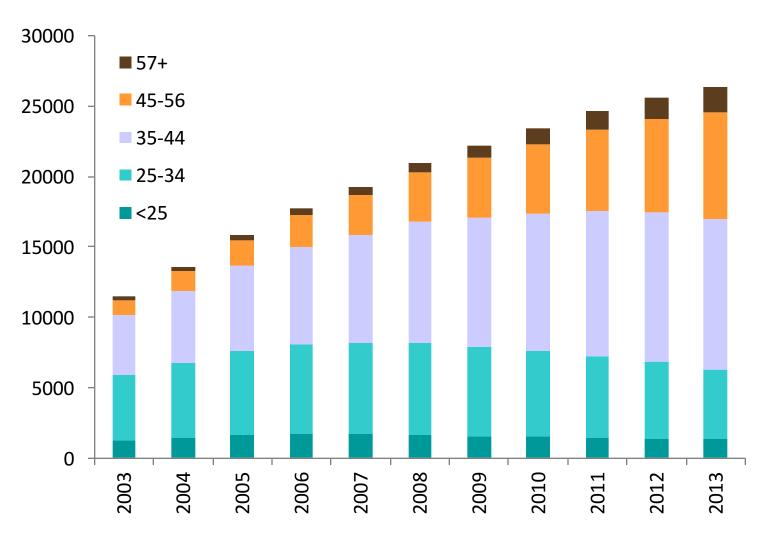




Source: HIV in the United Kingdom: 2014 Report, Public Health England (2014)

## Number of women accessing HIV CARE BY AGE GROUP, 2003-2013





Source: Data provided by Graeme Rooney (Centre for Infectious Disease Surveillance and Control, Public Health England)



### THE MENOPAUSE

### THE MENOPAUSE



- Cessation of menstrual cycle due to loss of ovarian function
- After one year of amenorrhoea
- Spontaneous or iatrogenic

### **GEOGRAPHICAL VARIATION**



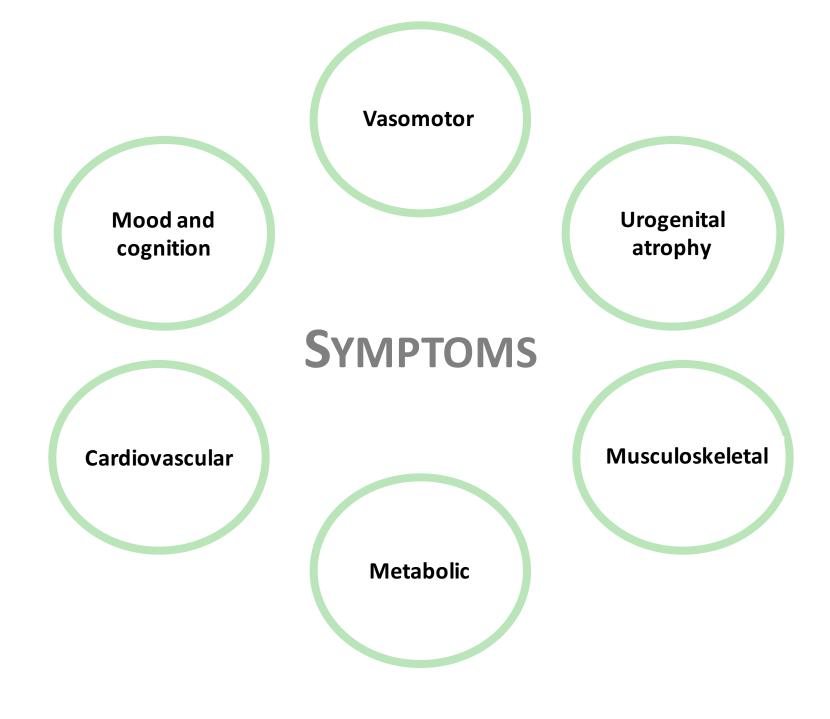
Region or country	n	Number of studies	Mean age at menopause (95% CI)	Heterogeneity (I-squared; %)
Africa	1,175	3	48.4 (48.1–48.6)	0.0
Asia	39,158	8	48.8 (48.1–49.4)	98.9
Australia	9,268	2	51.3 (49.8–52.8)	99.1
Europe	18,692	6	Socioeconomic factors Genetic factors Environmental factors	
Latin America	18,073	3		
Middle East	7,733	8		
United States	15,690	6		
Total	109,789	36	48.8 (48.3–49.2)	99.6

Source: Schoenaker DA et al. (2014)

### **MENOPAUSAL SYMPTOMS**



- 85% of women experience symptoms<sup>1</sup>
- Median duration = 7 years<sup>2</sup>
- Genital symptoms can be lifelong
- Negative impact on work and relationships<sup>3,4</sup>
- Reduced quality of life<sup>4</sup> and perceived health<sup>5</sup>
- Menopause experience shaped by culture<sup>6</sup>



### POST-MENOPAUSAL LIFE SPAN

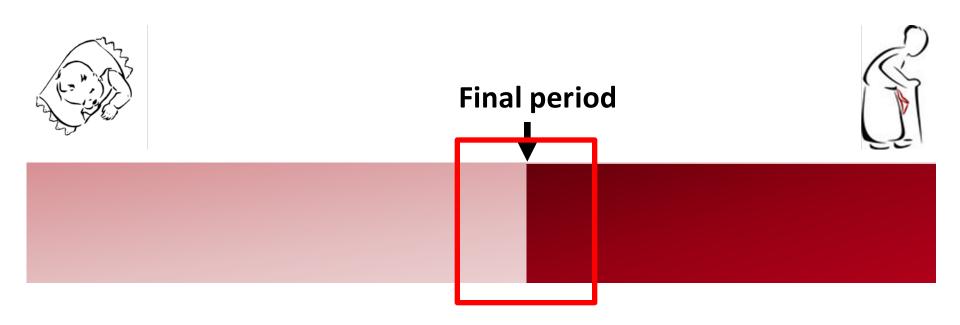






#### POST-MENOPAUSAL LIFE SPAN





Women can expect to live 40% of their lives post-menopause

They may spend 10% of their lives with menopausal symptoms



### HIV & THE MENOPAUSE

### **HIV** AND THE MENOPAUSE



- Relatively under-researched
- US studies predominate
- Symptoms misattributed<sup>1,2</sup>
- Use of HRT ~10%<sup>3,4</sup>
- No robust data on current management or clinical need in UK

Gonadal dysfunction

Co-existing factors

**Chronic illness** 

# DIFFERENCES IN HIV

**Chronic** inflammation

Opportunistic infection

**ART** 



### **AGE AT MENOPAUSE**



**HIV-POSITIVE** 



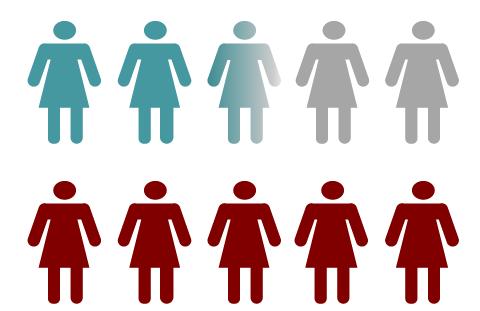
**HIV-NEGATIVE** 

### **AGE AT MENOPAUSE**



**HIV-POSITIVE** 

**HIV-NEGATIVE** 

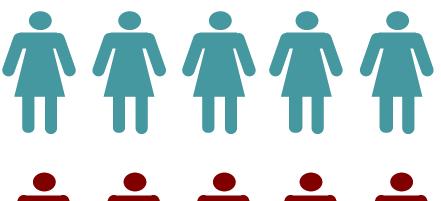


Clark RA (2001); Fantry LE (2005); Schoenbaum EE (2005); De Pommerol M (2011); Boonyanurak P (2012); Lui-Filho JF (2013); Willems N (2013)

### **AGE AT MENOPAUSE**



HIV-POSITIVE n=1063



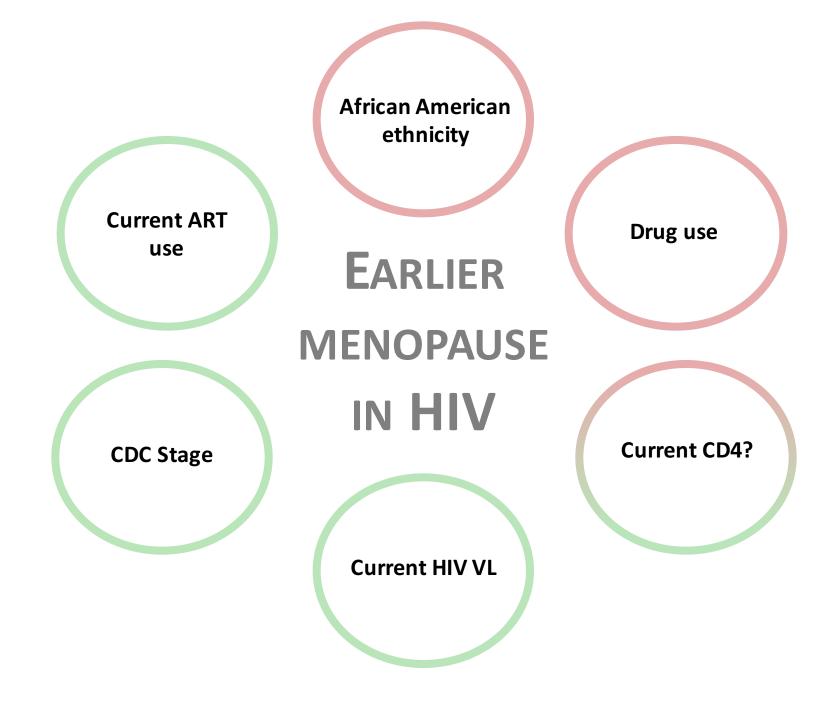
**AGE 47** 

HIV-NEGATIVE n=272



**AGE 48** 

Cejtin H (2004)



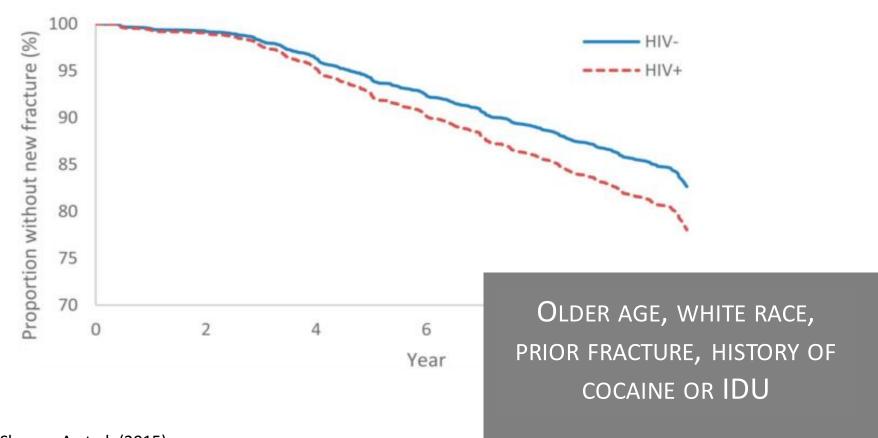
### **MENOPAUSAL SYMPTOMS**



- Increased vasomotor symptoms<sup>1,2,3</sup>
- Psychological symptoms<sup>3,4,5</sup>
- No difference in cognition<sup>6</sup>
- No difference in sexual function<sup>7,8</sup>

### **INCIDENCE OF NEW FRACTURES**





Source: Sharma A et al. (2015)

### IMMUNE FUNCTION & RESPONSE TO ART



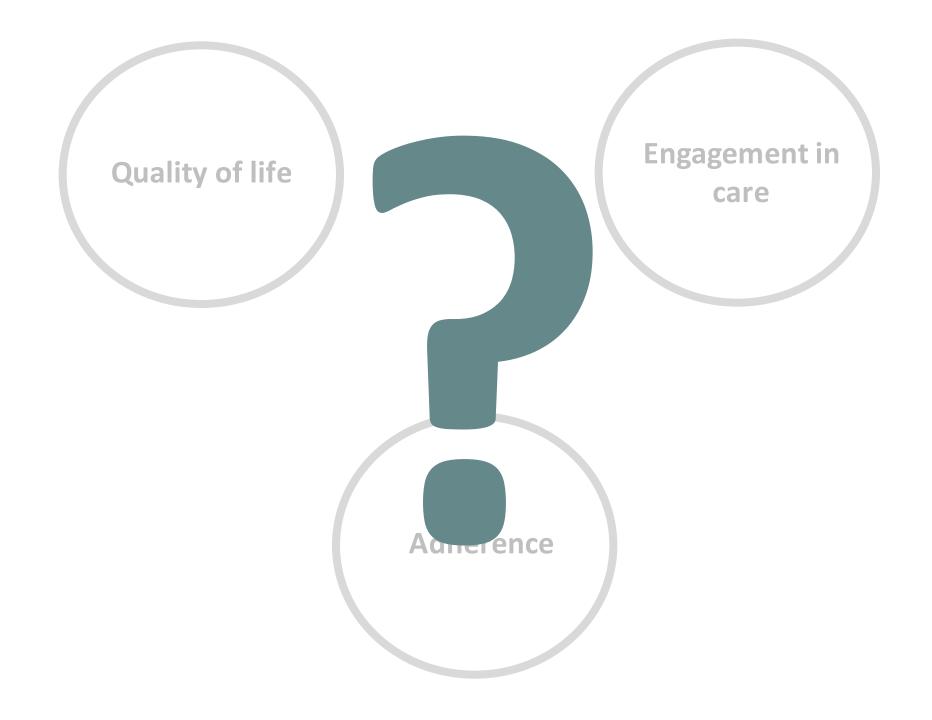
- Oestrogen may inhibit HIV replication<sup>1</sup>
- Oestrogen associated with increased CD4 T-cells<sup>2</sup>
- CD4 lower in post-menopausal women 3 years postseroconversion (p=0.09)<sup>3</sup>
- No difference in immunological/virological response in ART-naïve women starting ART<sup>4,5</sup>

**Quality of life** 

Engagement in care

# HEALTH AND WELLBEING

**Adherence** 



#### RECAP



- Biological plausibility that menopause may be different in HIV
- May be associated with earlier menopause
- Possibly increased symptoms
- Likely increased complications e.g. osteoporosis
- Very little is known about impact on wellbeing

## THE PRIME STUDY: POSITIVE TRANSITIONS THROUGH THE MENOPAUSE





## THE PRIME STUDY: POSITIVE TRANSITIONS THROUGH THE MENOPAUSE



### PRIME Study



#### **PRIME Study UCL**

The PRIME study (Positive Transitions through the MEnopause) is an NIHR-funded project looking at the menopause in women living with HIV in the UK.

UCL, London ucl.ac.uk/prime-study



1500 HIV+ WOMEN AGED 45-60
15 CENTRES ACROSS UK
QUESTIONNAIRES AND INTERVIEWS
LONGITUDINAL FOLLOW-UP



# To explore the impact of the menopause on HIV-positive women's wellbeing and engagement with HIV care



### **MANAGEMENT**

### HRT



- Synthetic oestrogens +/- progestogen
- Large body of evidence that HRT reduces vasomotor and mood symptoms
- Improves quality of life
- Reduces risk of fragility fractures
- Oral vs. transdermal vs. topical
- Lowest effective dose for shortest duration possible

### THE HRT CONTROVERSY: 2002





### **BREAST CANCER RISK**



	Relative risk of breast cancer	No. of extra (or less) cases/1000 over 5 years
No HRT	1	
Combined HRT	1.26	
Oestrogen-only HRT	0.73	
BMI>35	2	
≥ 2 units alcohol/day	1.5-2	

Source: Ayres J et al. (2013)

### **BREAST CANCER RISK**



	Relative risk of breast cancer	No. of extra (or fewer) cases/1000 over 5 years	
No HRT	1	0	
Combined HRT	1.26	4	
Oestrogen-only HRT	0.73	- 4	
BMI>35	2.0	15	
≥ 2 units alcohol/day	1.5 - 2	8 - 15	

Source: Ayres J et al. (2013)

## If STARTING HRT <10 YEARS AFTER MENOPAUSE...

**L** 

•	Breast cancer	0
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- Ovarian cancer + 1/1000
- Thrombosis + **5/1000**
- Stroke + 4/1000
- Coronary artery disease 8/1000
- Death 6/1000

### NICE GUIDELINES (Nov 2015)



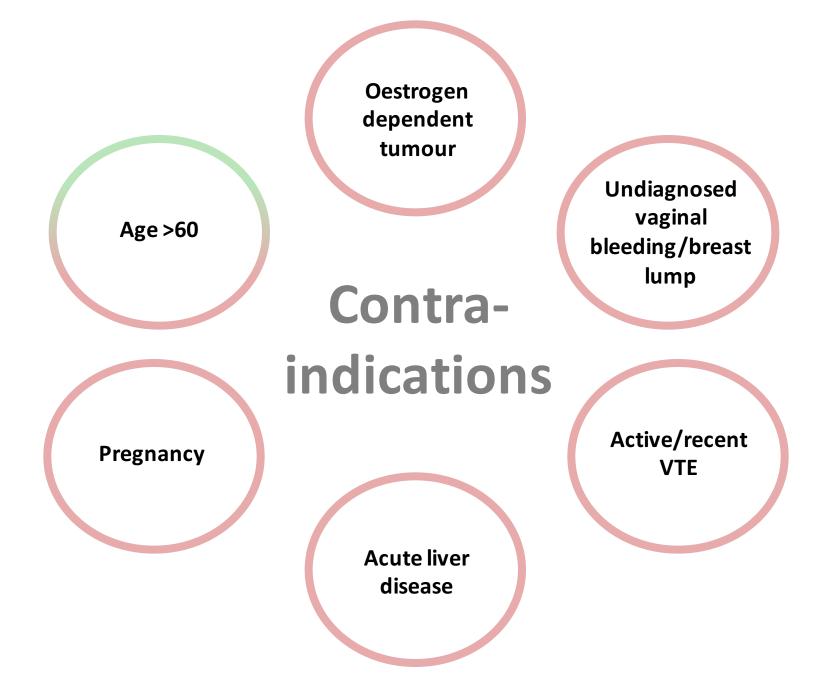
- Discuss and inform
- Offer HRT:
  - menopause age <40</p>
  - hysterectomy/oopherectomy
  - for symptoms (age <60)</p>
  - transdermal if VTE risk



Menopause guidelines to be issued by doctors

1 June 2015 Last updated at 08:00 BST

Other options: lifestyle, SSRIs, CBT, lubricants, herbal



### **HRT IN HIV**



- Probably underused
- Drug interactions between HRT and ART
  - absence of data
  - → oestrogen (PIs/NNRTIs)
  - − ↑progestogen exposure?
- Risk of CVD, VTE or malignancy in HIV?
- Improved outcomes e.g. osteoporosis, QoL, mood?

### MANAGEMENT OF HIV+ WOMEN IN MIDLIFE



#### 1. Ask

- menstrual history (clinical diagnosis)
- symptoms

#### 2. Inform

- symptoms
- treatment options

#### 3. Assess and address

- risk of comorbidity (CVD, osteoporosis, Cls to HRT)
- drug interactions

## MANAGEMENT OF HIV+ WOMEN IN MIDLIFE



#### 4. Advise

- lifestyle modification (exercise, alcohol, smoking)
- contraception
- breast and cervical screening
- 5. Offer support
- 6. Liaise with GP
  - symptoms
  - is patient interested in HRT?
  - transdermal?



in partnership with...

The British Menopause Society

Norfolk & Norwich University Hospital

#### WELCOME

the leading site for tailored menopausal advice provided by experts

A unique opportunity for you to get menopausal advice from experts in post reproductive health that is specific to your needs.

We hope you find the 'Manage my Menopause' questionnaire, 'MmM advice for you' lifestyle advice and the Manage my Menopause handbook useful.

Our aim is to highlight the changes you are going through at this time of your life, how these changes may impact on your long-term health and suggest small changes in your lifestyle. This should help to help manage your symptoms and reduce the risk of developing certain diseases in the future.

### PATIENT PERSPECTIVE



It would be good to hear this earlier, then we would start noticing it in our bodies. It would be a thing that we know. Not a kind of shock. I ran time after time to my doctor asking:

'What is this?' What is this?'

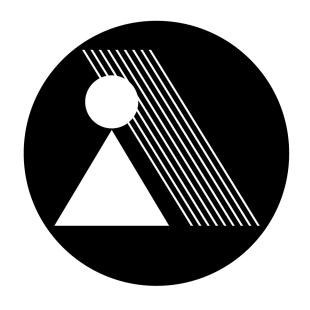
You don't know what is happening to you.

Come and teach us. Tell us more.

### CONCLUSIONS



- Increasing numbers of older women living with HIV
- Menopause can have physical and psychological consequences
- Under-recognised in HIV+ women
- Paucity of data on symptoms, morbidity and management
- Need for awareness and support



### PRIME







Acknowledgements: