

14th Annual Conference of the
National HIV Nurses Association (NHIVNA)

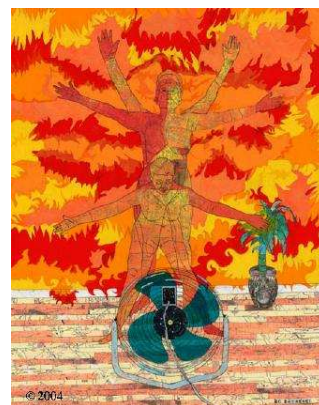


Breda Patterson

Chelsea and Westminster Hospital, London

14-15 June 2012, Manchester Conference Centre

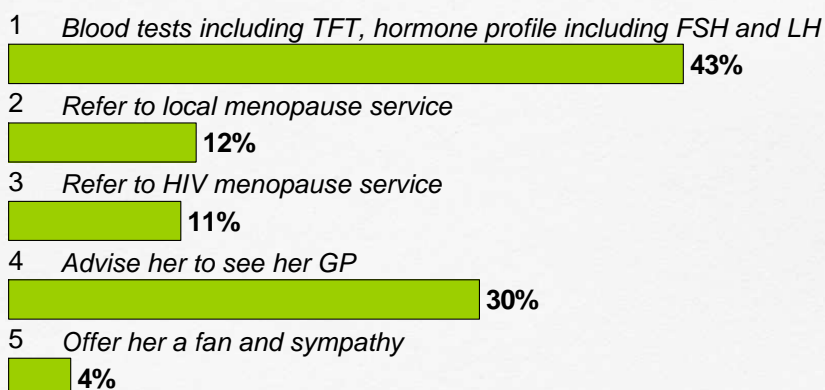
HIV AND THE MENOPAUSE

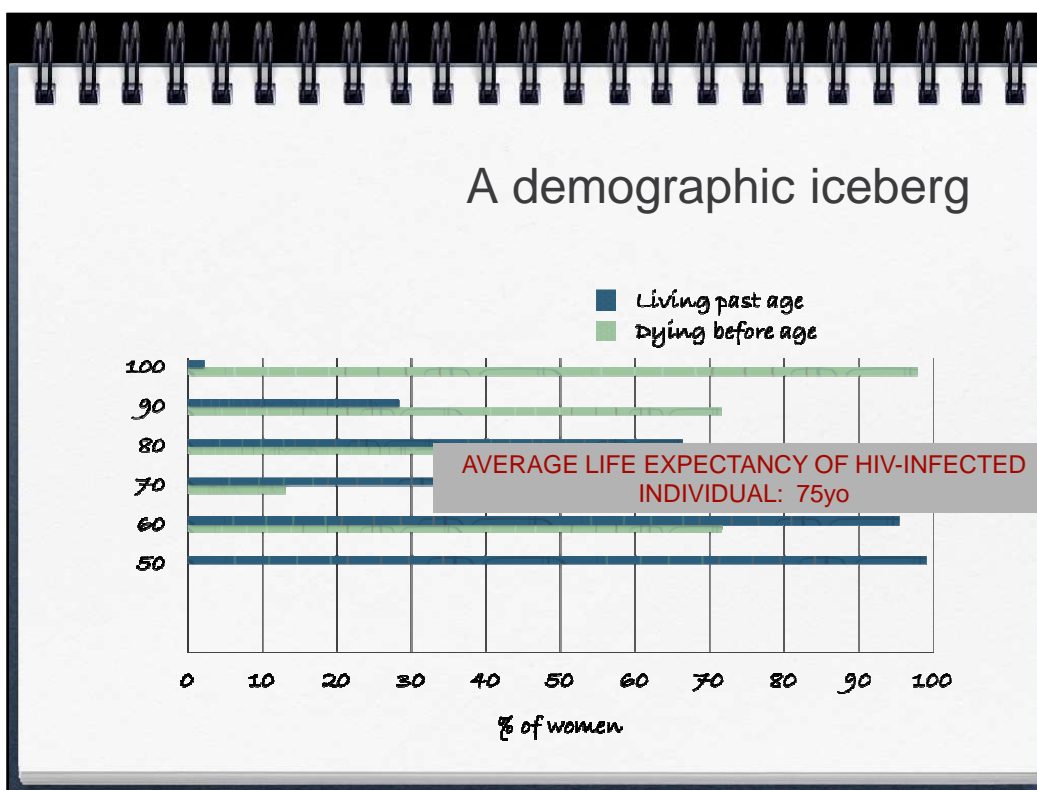


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FOUNDATION TRUST

What do you do in a patient who presents with menopausal symptoms?

- Blood tests including TFT, hormone profile including FSH and LH
- Refer to local menopause service
- Refer to HIV menopause service
- Advise her to see her GP
- Offer her a fan and sympathy





- ### Definitions
- Menopause (menos-month, pausos-an ending)
 - Permanent cessation of menstruation
 - ↓ ovarian follicular activity
 - Diagnosis retrospective (FSH ↑)
 - Perimenopause
 - Starts with clinical symptoms, ends 1 yr after last period
 - Diagnosis clinical (FSH variable)
 - Median age 52 yrs
 - Earlier in smokers, low BMI, black African

Definitions

- Premature ovarian failure
 - Menopause > 2 SD from mean for reference population:
 - Cut-off < 45 years
 - Untreated: \uparrow osteoporosis, cardiovascular disease, all cause mortality

Physiology of perimenopause

- Fewer follicles mature in ovary
- \downarrow Ovulation, \downarrow ovarian oestrogen (< 150)
- \uparrow FSH from ant pituitary (> 30) through -ve feedback
- Oestrogen deficiency symptoms
- Low Oestrogen \rightarrow no endometrial proliferation
- Amenorrhoea

Which of the following statements are true?

- Approximately 80% of women do not experience any symptoms of menopause
- Vaginal discharge is common in menopause
- Most menopausal symptoms disappear after 1 year
- 45% of women find their symptoms difficult to deal with

1 *Approximately 80% of women do not experience any symptoms of menopause*

8%

2 *Vaginal discharge is common in menopause*

2%

3 *Most menopausal symptoms disappear after 1 year*

10%

4 *45% of women find their symptoms difficult to deal with*

80%

Which of the following statements are true?

- Approximately 80% of women do not experience any symptoms of menopause
- Vaginal discharge is common in menopause
- Most menopausal symptoms disappear after 1 year
- **45% of women find their symptoms difficult to deal with**

Consequences of E2 deficiency – short term

- Vasomotor
 - Night sweats
 - Palpitations
 - Insomnia
 - Headaches and dizziness
- Mood changes
- Menstrual disturbance
- ↓ libido
- Joint pains

HIV

TB

CNS side effects


NCI

Low CD4 count



Consequences of E2 deficiency – long term

- Urogenital atrophy
 - Vaginal dryness
 - Superficial dyspareunia
 - Urinary frequency and urgency
- Metabolic changes
 - bone (↓ density)
 - lipids (↑ LDL/HDL ratio ↑ TG)
 - glucose (↑ glucose intolerance)
- Connective tissue/musculoskeletal
 - Arthralgia/aches and pains
 - Wrinkles



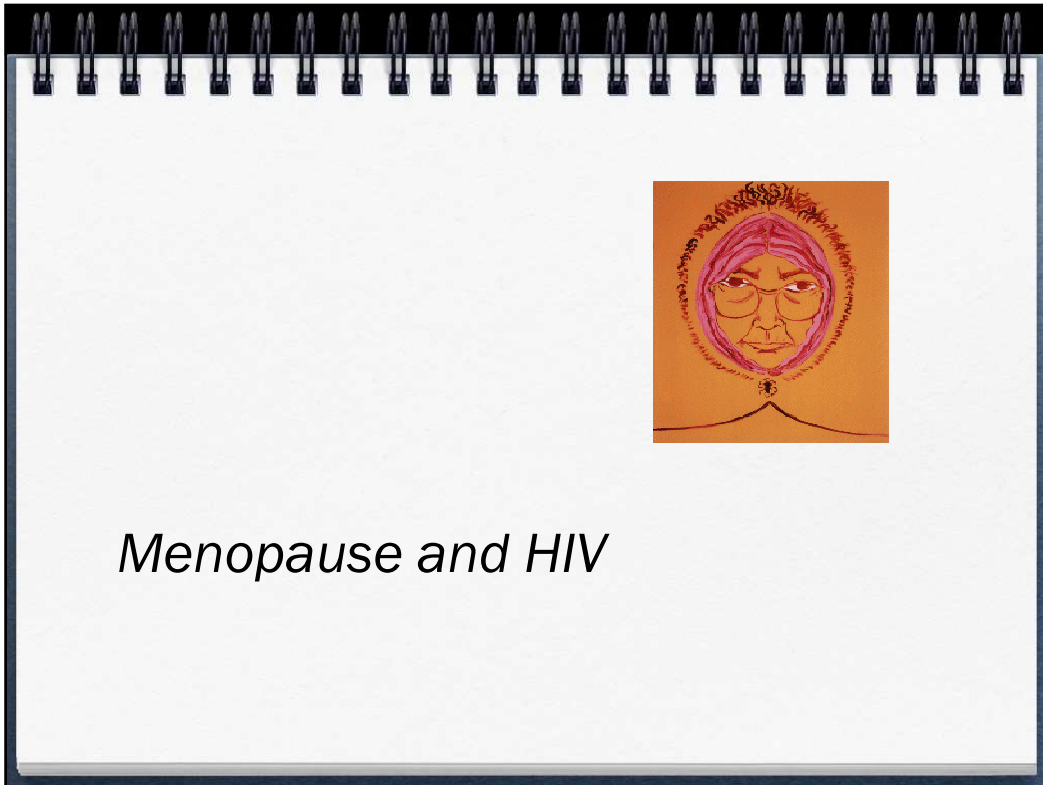
The Stages of Reproductive Ageing Workshop staging system: stages -5 to -3 represent the reproductive interval; stages -2 and -1 represent the menopausal transition, and stages 1 and 2 are the post-menopause.

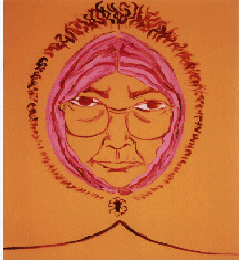
	Final Menstrual Period (FMP)							
Stages:	-5	-4	-3	-2	-1	0	+1	+2
Terminology:	Reproductive			Menopausal Transition		Postmenopause		
	Early	Peak	Late	Early	Late*		Early*	Late
				Perimenopause				
Duration of Stage:	variable			variable		a 1 yr	b 4 yrs	until demise
Menstrual Cycles:	variable to regular	regular		variable cycle length (>7 days different from normal)	≥2 skipped cycles and an interval of amenorrhea (≥60 days)	Amen x 12 mos	none	
Endocrine:	normal FSH		↑ FSH	↑ FSH			↑ FSH	

*Stages most likely to be characterized by vasomotor symptoms ↑ = elevated

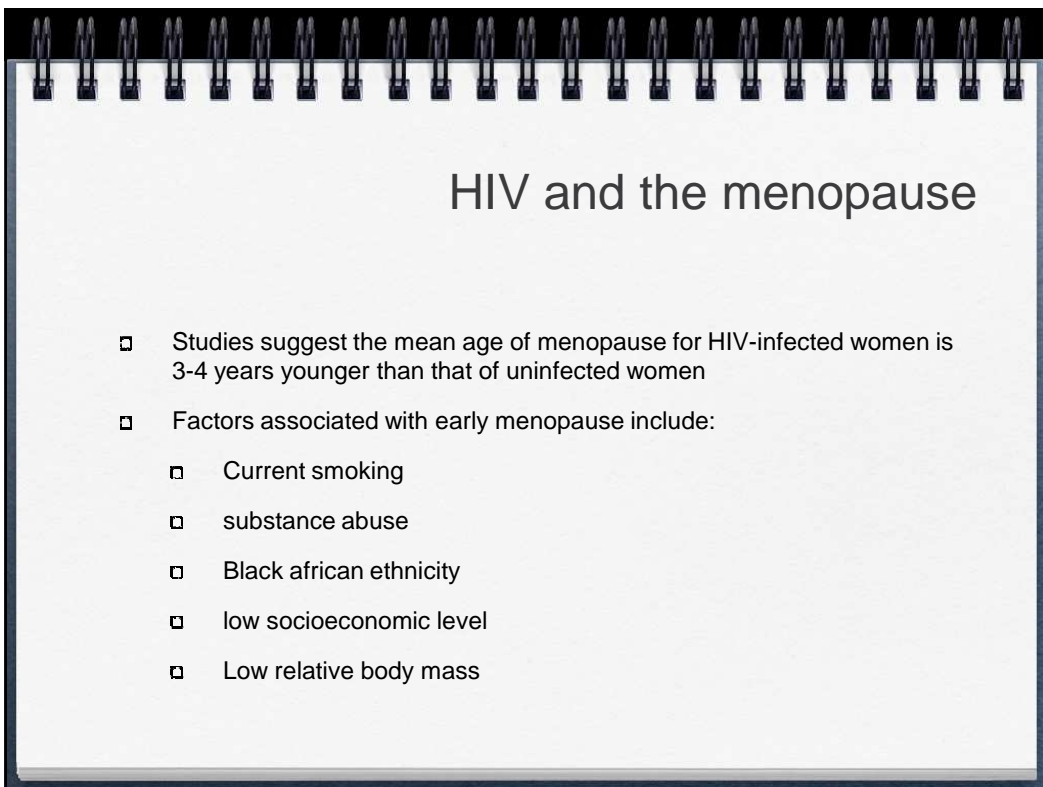
Martin K A, Manson J E JCEM 2008;93:4567-4575

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**CLINICAL
 ENDOCRINOLOGY
 & METABOLISM**





Menopause and HIV



HIV and the menopause

- ❑ Studies suggest the mean age of menopause for HIV-infected women is 3-4 years younger than that of uninfected women
- ❑ Factors associated with early menopause include:
 - ❑ Current smoking
 - ❑ substance abuse
 - ❑ Black african ethnicity
 - ❑ low socioeconomic level
 - ❑ Low relative body mass

Impact of HIV on age at menopause: MS Study

- Prospective study of 571 women
- HIV infection independently related to earlier onset of menopause
- In addition, greater immunosuppression, low physical activity level and recent drug use independently related to earlier menopause
- Other studies have not substantiated those findings but...
 - Early menopause is associated with current smoking, drug use, African-American ethnicity and lower educational levels
 - All common among HIV-infected women

Schoenbaum E et al. CID 2005; 41:1517-24

HIV associated with early menopause?

HIV not associated with earlier age at menopause

- 1335 women < 55 yrs (1063 HIV pos, 272 HIV neg)
- Median age at menopause 48 years for both.

Cejtin HE et al Obstet Gynaecol 2006

- Serum follicle-stimulating hormone (FSH) levels in approximately half of the HIV-infected women in one study with prolonged amenorrhoea did not necessarily indicate menopausal status, and HIV-infected women were more than 3 times more likely than non-HIV-infected women to have prolonged amenorrhoea without ovarian failure (Women's Interagency HIV study)

Additional considerations for HIV-infected postmenopausal women

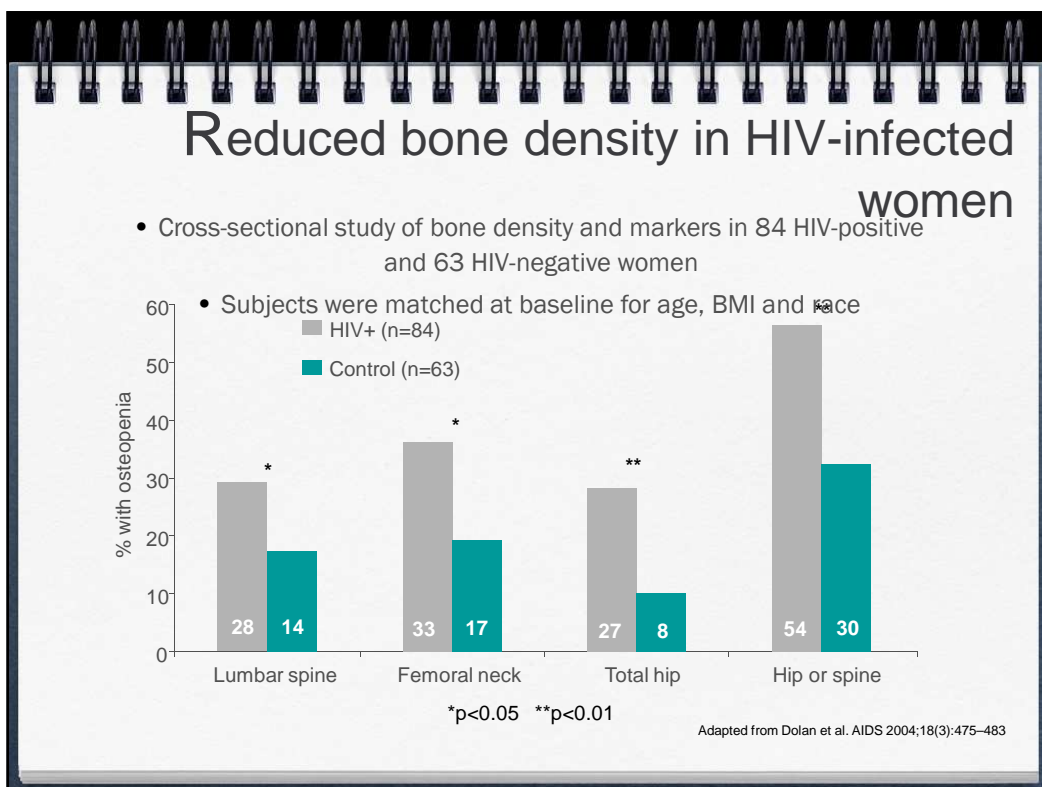
Postmenopausal women should continue to undergo routine health screening which can include:

- Annual Pap smears
- Sexually transmitted infection screening
 - Syphilis
 - Gonorrhoea/chlamydia
- Breast cancer screening
- Colon cancer screening
- Osteoporosis screening and prevention
 - Women should be encouraged to perform regular weight-bearing exercises
 - 1000–1500 mg/day of calcium with vitamin D 400 IU/day
 - Annual dual energy x-ray absorptiometry (DEXA) screening
- Cardiovascular risk screening
- Depression screening

Kojic et al. J Womens Health (Larchmt). 2007;16:1402-11.

Table. Routine Primary Healthcare Recommendations for Older HIV-Infected Women¹

Procedure	Frequency
Gynecological evaluation	At baseline and annually and as indicated for ongoing problems. This examination should include direct visualization of the vulva, vagina, and cervix, and a bimanual pelvic examination that includes a digital rectal examination.
Cytologic screening	<ul style="list-style-type: none"> •Cervical Pap tests <ul style="list-style-type: none"> • Baseline and then 6 months after baseline; repeat annually, as long as results are normal • Abnormal Pap tests results should be repeated every 3 to 6 months until two successive normal Pap tests are reported² •Anal Pap tests <ul style="list-style-type: none"> • Baseline and annually for women with a history of anogenital condyloma or abnormal cervical/vulvar histology
Post-hysterectomy cervical screening ³	<ul style="list-style-type: none"> •Annual cervical Pap test when: Hysterectomy was performed because of high-grade dysplasia, HPV-related anogenital dysplasia of the cervix, or carcinoma •A supracervical hysterectomy (uterus removed and cervix left in place) was performed •The reason for the hysterectomy cannot be determined by patient self-report or other means •Any cervical tissue remains
STI screening	<ul style="list-style-type: none"> •RPR or VDRL for syphilis with verification of positive test by confirmatory FTA-Abs or TP-PA <ul style="list-style-type: none"> • Baseline and at least annually; every 3 months for patients with ongoing high-risk behavior •Gonorrhea and chlamydia^{4,5} <ul style="list-style-type: none"> • Baseline and at least annually
Mammography	Annually, starting at age 40 ⁶
Bone mineral densities	Baseline at menopause and after 50. The frequency thereafter has not been determined ⁷



Reduced bone density in HIV-infected women (cont.)

- In a multivariate regression analysis controlling for age, BMI, menstrual function and race
 - HIV-infected subjects were 2.5 (95% CI 1.1–5.8, $p=0.03$) times more likely to demonstrate osteopenia compared to the healthy control subjects
 - No relationship with PI, NRTI or NNRTI use

Dolan et al. AIDS 2004;18(3):475–483

HIV and cardiovascular risk

Glucose and lipid metabolism

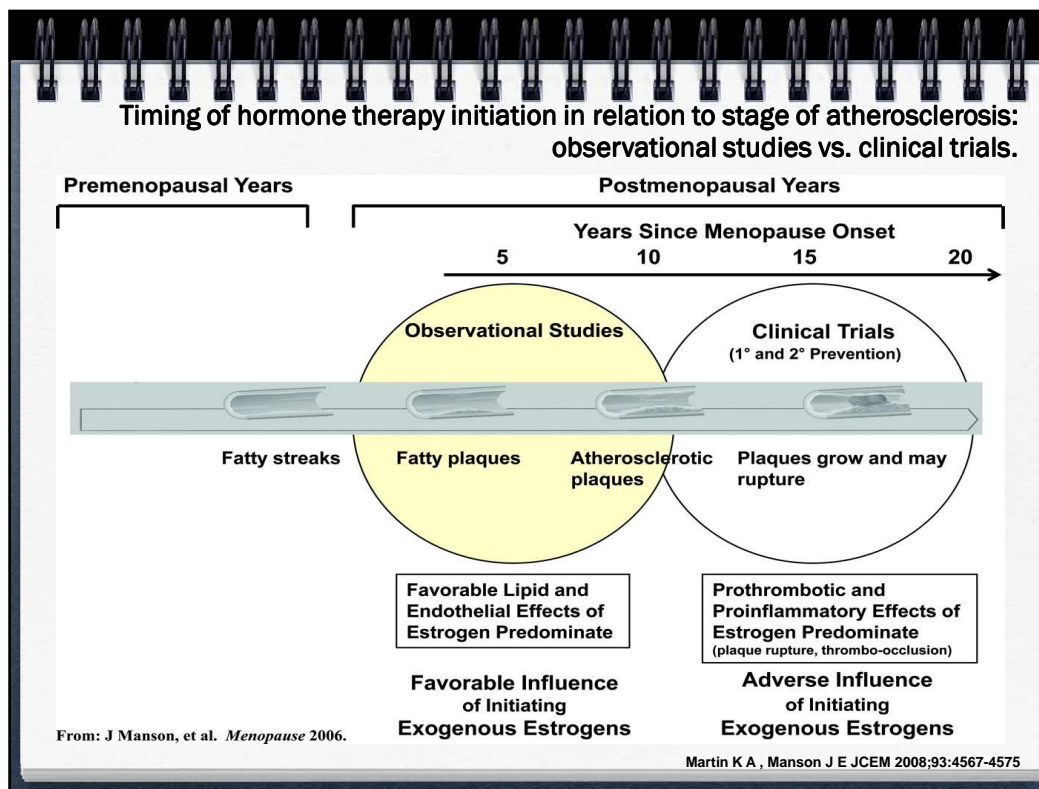
- Most studies of lipodystrophy and metabolic syndrome in men
- Metabolic syndrome, impaired GTT, \uparrow LDL/HDL ratio more common in HIV+ women compared with HIV- controls

Rexrode KM JAMA 1998; Sobieszczyk ME JAIDS 2008 CVD outcomes

- Acute MI \uparrow in HIV+, esp with PIs
 - Relative risk higher for women

Triant VA. J Clin Endocrinol Metab 2007; Klein D Circulation 2008

- Oestrogen deficiency associated with increased CVD risk
- Likely to exacerbate HIV-associated cardiovascular risk



HRT prescribing: local oestrogens

- Recommended for urogenital symptoms
 - Creams: Oestriol: Ovestin/Orthogynest
 - Tablets: Oestradiol: Vagifem
 - Rings: Oestradiol: Estring

HRT prescribing: systemic oestrogens

- Recommended for
 - Premature ovarian failure: until at least aged 50yrs
 - Symptomatic women
- How its given
 - Always with progestogen, unless hysterectomised
 - Transdermal preparations
 - Lowest effective dose, no absolute time limit
 - Regular review of risks/benefit



HRT prescribing: systemic oestrogens

- Not recommended
 - First line prevention of osteoporosis – but will prevent osteoporosis in those taking it
 - Primary prevention of heart disease but evidence of benefit <60 yrs



Rationale for HIV menopause clinic

Rationale for an HIV menopause clinic

- Possible increased risk of early menopause
 - HIV + women less likely to recognise menopause symptoms
 - Clinical/laboratory diagnosis of menopause difficult
 - Menopause exacerbates metabolic complications of HIV
- HIV+ should not be denied HRT if symptomatic
- Will treatment with HRT have a beneficial effect on metabolic complications of HIV?

