ACTHIV 2014: A State-of-the-Science Conference for Frontline Health Professionals
Aging, Women and HIV

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Learning Objectives
Upon completion of this presentation, learners should be better able to:

• Review the epidemiology of women and aging
• Review the impact of aging on HIV-related stigma on women
• Discuss bone loss in women with aging and HIV
• Discuss menopause in HIV-infected women
Case #1

65 yo African-American married woman in Atlanta presents to your 1\textsuperscript{o} care practice for routine visit. She has had sex with men only and has had 3 partners in her life. You tell her that you will be sending an HIV test today in addition to routine labs and she tells you to “not bother” as she doesn’t think she is at risk for HIV infection.
How often should women be tested for HIV infection (besides in pregnancy)?

A. Once, then every time the patient reports risk factors
B. Once every 5 years and with reported risk factors
C. Once every 2 years and with reported risk factors
D. Once yearly and with reported risk factors
E. Depends on geographic region, race/ethnicity and other factors
What’s the real story in U.S. women?

- **HPTN 064** recruited >2000 at-risk women from “geographic hotspots” around the country (Atlanta, Harlem, Bronx, Raleigh, DC, Baltimore), and performed acute HIV testing.

Results

- HIV incidence (NEW INFECTIONS) was actually 0.32% (2.4/1000) - 5x higher than CDC’s 0.05% (5/10,000) estimate for black women
  - Northeast and Southeast “hotspots”
  - Comparable to adult incidence rates in Sub-Saharan Africa (0.28% for Congo and 0.53% for Kenya)
  - Median age 29 years

The patient asks you – “I have been coming to the doctor every year. Shouldn’t someone have tested me before?”
Institute of Medicine (IOM) report  July 19, 2011

**Recommendation 5.4:**
Counseling and screening for human immunodeficiency virus infection on an annual basis for sexually active women (anywhere)

- Gestational DM, HPV, counseling on STDs, contraception, lactation, DV, yearly visits
Estimated numbers of persons living with HIV infection, by age

Centers for Disease Control and Prevention, 2008

Estimated numbers of persons living with HIV infection, by age
Centers for Disease Control and Prevention, 2009

By 2011, over ¼ of ~1.2 million people living with HIV in U.S. are ≥50 years
Diagnoses of HIV Infection among Adult and Adolescent Females, by Transmission Category and Age at Diagnosis 2011—United States and 6 Dependent Areas

<table>
<thead>
<tr>
<th>Transmission category</th>
<th>13–19</th>
<th>20–24</th>
<th>25–34</th>
<th>35–44</th>
<th>≥45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injection drug use</td>
<td>7.0</td>
<td>8.8</td>
<td>12.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual contact(^a)</td>
<td>92.7</td>
<td>91.2</td>
<td>87.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other(^b)</td>
<td>0.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. All displayed data have been statistically adjusted to account for reporting delays and missing transmission category, but not for incomplete reporting.

\(^a\) Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

\(^b\) Includes blood transfusion, perinatal exposure, and risk factor not reported or not identified.

Over 1/3 of new infections in women ≥ 45 years
Case (continued)

Your patient’s rapid HIV antibody test is positive, confirmed by Western blot. When asked again, she says she is only sexually active with her husband. She is horrified, asking “how I am going to tell my church?”
What percentage of women aged 65-74 report having sexual intercourse in the past year?

A. 10%
B. 25%
C. 40%
D. 70%
E. I am a hip HIV-provider who is happy to discuss the sex life of anyone except my grandmother
A Study of Sexuality and Health among Older Adults in the United States

Stacy Tessler Lindau, M.D., M.A.P.P., L. Philip Schumm, M.A.
Semi-structured interviews with 17 HIV+ women (50-79 yrs) in SE U.S.

- Most expressed feeling “shame” at having HIV
- Main sources of support- close family members (mostly grown daughters)
- All limited social interactions due to HIV
- Only 3 had romantic partnerships, only 1 fulfilling; all stated limited sex due to HIV
- All expressed personal relationship to God, but many limited interactions or disclosure to church due to stigma

Grodesnsky CA. J Assoc Nurses AIDS Care. 2014 Mar 11
Case #2

62 yo woman with HIV CD4 719 (26%) viral load <40 on ABC/3TC/TFV/DRV/r, cocaine-induced MI in ‘03, CAD with well-controlled risk factors (HTN, hyperlipidemia), depression, EtOH abuse, HCV, h/o club feet presented 2 months ago with left superior pubic ramus fracture. Pt states she had been walking across her kitchen and tripped on edge of rug, fell on hip. Third fracture in past 7 years (left medial malleolus ‘07; comminuted left radial ‘04)
What is the increase in odds of HIV patients being osteoporotic?

A. OR 1.5
B. OR 2.5
C. OR 3.5
D. OR 4.5
E. OR 5.5
Bone loss common in HIV

- Osteopenia (OR 6.4) and osteoporosis (OR 3.7; 15% prevalence) common

- OR 3.02 (95% CI 1.26-7.25) for women:men

References:
Other risk factors common

HIV+ patients

- Sedentary lifestyle*
- Minimal sun exposure*
- Low weight* (46kg)
- Alcohol*
- Tobacco smoking*
- Low vitamin D levels
- Poor nutrition
- Hyperthyroidism
- Hypogonadism*
- Opiate use*
- Chronic renal insufficiency
- Hepatitis C
- Chronic inflammation

Screen men >50 and women postmenopausal via DEXA, then q2 years if not low

1McCamsey CID 2010; 2Aberg CID 2014
Age at menopause — Earlier in HIV+?

Not convincing data

<table>
<thead>
<tr>
<th>Authors (year)</th>
<th>Country</th>
<th>Number of women for analysis</th>
<th>Percent of participants who were black/African American or Hispanic/Latina</th>
<th>HIV status</th>
<th>N</th>
<th>Number of women with menopause</th>
<th>Age at onset of menopause (years)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clark et al. (2000) [26]</td>
<td>United States</td>
<td>52</td>
<td>43% (black/AA) 15% (Hispanic)</td>
<td>Infected</td>
<td>52</td>
<td>26 (50.0%)</td>
<td>47 (IQR 32–57)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Uninfected</td>
<td>0</td>
<td>NA</td>
<td>(mean)</td>
<td></td>
</tr>
<tr>
<td>Cejtin et al. (2004) [35]</td>
<td>United States</td>
<td>1335</td>
<td>NR</td>
<td>Infected</td>
<td>1063</td>
<td>NR</td>
<td>47.7 (mean)</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Uninfected</td>
<td>272</td>
<td>NR</td>
<td>48.0 (median)</td>
<td></td>
</tr>
<tr>
<td>Fantry et al. (2005) [17]</td>
<td>United States</td>
<td>120</td>
<td>95% (black/AA)</td>
<td>Infected</td>
<td>120</td>
<td>NR</td>
<td>50.0 (IQR 49.3–53.0)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Uninfected</td>
<td>0</td>
<td>NA</td>
<td>(median)</td>
<td></td>
</tr>
<tr>
<td>Schoenbaum et al. (2005) [16]</td>
<td>United States</td>
<td>571</td>
<td>49% (black/AA) 40% (Hispanic)</td>
<td>Infected</td>
<td>302</td>
<td>62 (20.5%)</td>
<td>46.0 (IQR 39.0–49.0)</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Uninfected</td>
<td>269</td>
<td>40 (14.9%)</td>
<td>(median)</td>
<td></td>
</tr>
<tr>
<td>Ferreira et al. (2007) [25]</td>
<td>Brazil</td>
<td>251</td>
<td>NA</td>
<td>Infected</td>
<td>96</td>
<td>NR</td>
<td>47.5 (median)</td>
<td>NR</td>
</tr>
<tr>
<td>de Pommerol et al. (2011) [18]</td>
<td>France</td>
<td>404</td>
<td>NA</td>
<td>Infected</td>
<td>404</td>
<td>69 (17.1%)</td>
<td>49 (IQR 40–50)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Uninfected</td>
<td>0</td>
<td>NA</td>
<td>(median)</td>
<td></td>
</tr>
</tbody>
</table>
Greene Climacteric Scale

- Heart beating strongly or quickly
- Feeling tense or nervous
- Difficulty sleeping
- Excitability
- Panic attacks
- Difficulty concentrating
- Feeling tired or lacking in energy
- Loss of interest
- Feeling unhappy
- Headaches
- Muscle and joint pains
- Crying spells
- Irritability
- Feeling dizzy
- Feelings of pressure or tightness
- Parts of body feel numb or tingling or loss of feeling
- Breathing difficulties
- Hot flashes
- Loss of interest in sex
- Vaginal dryness
- Urinary discomfort
- Memory problems

"Menopause is easy - after you stop laying eggs, they eat you."

**Are menopausal symptoms worse in HIV?**

 Likely, but sometimes hard to distinguish from HIV-related symptoms

<table>
<thead>
<tr>
<th>study</th>
<th>reference</th>
<th>design</th>
<th>participants</th>
<th>findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clark</td>
<td>JAIDS, 2000, 23:99</td>
<td>Cross sectional</td>
<td>101 HIV+</td>
<td>Symptoms common in HIV+</td>
</tr>
</tbody>
</table>
Summary

- Older women still at risk for HIV and 1/3 of new infections in women ≥ 45 years
- Stigma in HIV-infected women high
- Be vigilant about bone in HIV+ women: screen all HIV-infected women upon menopause for BMD via DEXA;
- Menopause may occur earlier in HIV-infected women with more symptoms
Don't turn your back on AIDS.

STOP AIDS. Make the Promise.

Each of us can help stop the spread of HIV and reduce the impact of AIDS. You don’t have to be a top scientist working on a cure to make a difference. Protecting yourself and others from HIV infection, welcoming someone living with HIV into your life or even just talking about HIV and AIDS can help. Are you taking action?

Make your promise now at www.worldaidscampaign.org