This PowerPoint file is a supplement to the video presentation. Some of the educational content of this program is not available solely through the PowerPoint file. Participants should use all materials to enhance the value of this continuing education program.

Women and HIV

Arlene Hudson, MD
Family Practice
J.O. Wyatt Community Health Center
Amarillo, Texas

Nursing I 33215
Case Discussion #1

AA is a 28-year-old Sudanese refugee referred in October 2013 for treatment of HIV
- tested positive for HIV upon arrival in Amarillo, Texas, through a refugee program
- history taken with help of a translator
- refuses to tell her husband that she is HIV infected
- current spouse and daughter from a previous relationship are HIV negative

Past medical history
- single hospitalization in Egypt 27 months prior for an unknown reason
- she denies being told she had HIV at that time or the diagnosis of pneumonia
- treated through the health department for positive PPD (purified protein derivative) with INH (isoniazid) preventive therapy
- treated at Texas Tech University Health Sciences Center’s GYN (gynecology) for ovarian cysts
- she is using the diagnosis of cysts to have her husband use condoms to protect him

Past surgical history
- female circumcision

What Do You Think?

1. Should HIV-infected women be allowed to have babies?
   A. yes
   B. no
   C. don’t know

2. What is the risk of transmission of HIV from an infected woman to her child?
   A. <2%
   B. 5%
   C. 10%
   D. 20%
   E. 50%

3. What is the risk that an HIV-infected woman will transmit HIV to an uninfected partner?
   A. 1:20
   B. 1:200
   C. 1:2,000

4. Does an HIV-infected individual legally have to disclose HIV status to a sexual partner?
   A. yes
   B. no
   C. don’t know

5. Does the provider have some obligation to protect the sexual partner(s) knowing the risk of HIV acquisition?
   A. yes
   B. no
   C. don’t know
Case Discussion #1

Personal evaluation
- beautiful African woman with a head covering in obvious mental distress
- 2 cm (centimeter) hypo-pigmented area on the left arm where the skin sloughed off at the site of +PPD

First assessment and plan:
- HIV infection with an unknown CD4 (HIV helper cell count) and viral load
- patient refusing to disclose status to her current husband who has tested negative for HIV infection
- treatment was begun before her labs were known with a once-a-day regimen that she could possibly hide from her spouse
- Dr. Hudson also chose a regimen that would be safe in pregnancy if she did become pregnant
- Dr. Hudson researched the legal ramifications of not warning AA's spouse

Second assessment and plan:
- severe life stress in a woman that Dr. Hudson couldn’t communicate with
- Dr. Hudson hoped that with time, AA would let her know what she was afraid of and how Dr. Hudson could help with this

Third assessment and plan:
- +PPD status on treatment

Fourth assessment and plan:
- ovarian cysts – records were not available but the diagnosis allowed her to have some excuse to use protection during sex

FGM (Female Genital Mutilation) (or Female Circumcision)
- WHO (World Health Organization) states that FGM is all procedures that involve partial or total removal of the external female genitalia for nonmedical reasons
- 88% of women in Sudan had FGM and most had the most severe form, listed as infibulation
  - this is where all of the external genitalia is removed and the wound is fused, leaving a small hole of 2-3 mm (millimeters) for passage of urine and menstrual blood
- Most often cited for promotion of female virginity and fidelity
- Makes women marriageable and the procedure is usually organized by the mothers and grandmothers

Global Summary of the AIDS Epidemic in 2012

<table>
<thead>
<tr>
<th>Number of people living with HIV</th>
<th>Total</th>
<th>35.3 million (32.2-38.8 million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults</td>
<td>32.1 million (29.1-35.3 million)</td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>17.7 million (16.4-19.3 million)</td>
<td></td>
</tr>
<tr>
<td>Children (&lt;15 years)</td>
<td>3.3 million (3.0-3.7 million)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>People newly infected with HIV in 2012</th>
<th>Total</th>
<th>2.3 million (1.9-2.7 million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults</td>
<td>2.0 million (1.7-2.4 million)</td>
<td></td>
</tr>
<tr>
<td>Children (&lt;15 years)</td>
<td>260,000 (230,000-320,000)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AIDS deaths in 2012</th>
<th>Total</th>
<th>1.6 million (1.4-1.9 million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults</td>
<td>1.4 million (1.2-1.7 million)</td>
<td></td>
</tr>
<tr>
<td>Children (&lt;15 years)</td>
<td>210,000 (190,000-250,000)</td>
<td></td>
</tr>
</tbody>
</table>
UNAIDS Global Report of 2013

- HIV and women:
  - comprise 52% of all people living with HIV
  - in sub-Saharan Africa, women comprise 57% of all people living with HIV
  - 12-30% prevalence among female sex workers
  - 19% prevalence in transgendered women
  - intimate partner violence increases HIV acquisition by 50% over women who have not experienced violence
    - fear of violence undermines their capacity to negotiate safer sex
    - traumatic injury to genitalia increases susceptibility

Victimization Among American Women with HIV

- One in five women suffered physical harm since their HIV diagnosis
  - half of this was directly attributed to being HIV positive
- Intimate partner abuse
  - occurs in an estimated 55% of women living with HIV – compared to national prevalence of 36%
- Domestic violence is particularly prevalent among transgender women: 58% (28% estimated to have HIV infection)

Female Sex Workers

- The WHO reports that female sex workers have a 14x higher risk of living with HIV than women overall
  - HIV prevalence:
    - sub-Saharan Africa: 37%
    - North America: 2%
  - less likely to access care or receive ARV (antiretroviral) treatment
  - treatment outcomes are good if they receive ARV treatment

The following charts are courtesy of the CDC (Centers for Disease Control and Prevention)
So What is AA’s Risk of Transmitting HIV to Her Uninfected Partner?

- HIV-infected woman to a non-HIV infected partner through vaginal intercourse
  - 0.05% or 1 in 2,000
- HIV-infected man to a non-HIV infected woman through vaginal intercourse
  - 0.1-0.2% or 1 in 1,000
- HIV-infected man to a non-HIV infected partner through anal intercourse
  - 0.5-3.0% or 1-6 in 200
- Oral sex with ejaculation from an infected source
  - conflicting data, but risk felt to be low [CDC still recommends discussion about PEP (postexposure prophylaxis)]
- Actual risk depends on source viral load and the presence of an STD (sexually transmitted disease)

Is the Risk of Transmitting HIV Less if the Woman is on Treatment with ARVs?

- Absolutely
  - HPTN (HIV Prevention Trials Network) 052 study showed 96% reduction in HIV transmission in serodiscordant couples whose infected partner received ART (antiretroviral therapy)
Preconception Counseling in Serodiscordant Couples

- Undetectable viral load with the use of ARV
- Use of ovulation predictor kits to identify the most fertile day in the month
- Doing home insemination
  - partner ejaculates into cup or condom, semen is placed in a needle syringe, and the syringe is used to deposit semen in the vagina
- Unprotected intercourse just on the periovulatory days
- Consideration of PEP for the uninfected partner

Recent Changes in Recommendations of HIV Treatment and Pregnancy

The recommendation on the use of EFV (efavirenz) during pregnancy was updated; the key update includes the following statement:

- Because the risk of neural tube defects is restricted to the first 5 to 6 weeks of pregnancy, and pregnancy is rarely recognized before 4 to 6 weeks of pregnancy, EFV can be continued in pregnant women receiving an EFV-based regimen who present for antenatal care in the first trimester, providing the regimen produces virologic suppression
- Alternative regimens that do not include EFV should be strongly considered in women who are planning to become pregnant, or sexually active and not using effective contraception

Perinatal HIV Transmission Can Occur...

- During pregnancy
- During labor and delivery
  - intravenous zidovudine use during labor may be omitted in women who have HIV RNA (ribonucleic acid) <400 copies/mL (per milliliter) near delivery
  - oral combination ART should be continued during labor
  - cesarean section is recommended when RNA is >1,000
- During breast feeding
  - because alternative food sources are available in the U.S., it is recommended that women not breast feed their babies

Perinatal HIV Transmission

- Providers considering the use of ARVs for HIV-infected women during pregnancy must take into account:
  - ART for maternal HIV infection
  - ARV chemoprophylaxis to reduce the risk of perinatal transmission of HIV
- All cases of ARV use in pregnancy need to be reported to the Antiretroviral Pregnancy Registry at: http://www.APRegistry.com
- Perinatal HIV infection has diminished to <2 in the U.S. due to:
  - universal prenatal HIV counseling and testing
  - preconception care
  - ARV prophylaxis
  - scheduled cesarean section delivery (if indicated)
  - avoidance of breast feeding
Case Report #2

- AO is a 48-year-old African American female with a previous history of incarceration for attempted murder
- HIV infected for years
- She was doing well for two years with a good CD4 and <20 viral load
- March 2013: She quit taking her medications – “just didn’t want to take them anymore”
- August 2013: CD4 of 40 and a viral load of 180,000; she asked to restart her medications at that time
- January 2014: Her grandchild contracted HIV presumptively through premastication of food
  - note: HIV-infected caregivers should not premasticate food for others’ consumption

Interaction of OCP (Oral Contraceptive Pill) and ARV

- Data on drug interactions between ARV agents and hormonal contraceptives have not been well studied
- The magnitude of changes in contraceptive drug levels may reduce contraceptive efficacy or increase contraceptive-associated adverse effects
- Hormonal contraceptives can be used with ART in women without other contraindications
- Additional or alternative methods of contraception may be recommended when drug interactions are known

Initial Evaluation of HIV-infected Patients

The remainder of the information is from The IDSA (Infectious Diseases Society of America) 2013 Primary Care Update

- All patients should have the following obtained upon initiation of care:
  - comprehensive present and past medical history
  - medication history
  - social history
  - family history
  - review of systems, including HIV-related information (strong recommendation, moderate quality evidence)
  - physical examination

Laboratory Evaluation Upon Initiation in Care

1. A CD4 cell count with percentage
2. A quantitative HIV RNA (viral load)
3. HIV genotype
4. Tropism testing should be performed if the use of a CCR5 (C-C chemokine receptor type 5) antagonist is being considered
5. Complete blood count
6. Chemistry panel
7. Fasting lipid profile
8. HLA-B*5701 (human leukocyte antigen B 5701) testing should be performed before initiating abacavir therapy
Laboratory Evaluation Upon Initiation in Care

9. A baseline urinalysis and calculated creatinine clearance or estimated glomerular filtration rate
10. Tested for mycobacterium tuberculosis infection by either a TST (tuberculin skin test) or by an IGRA (interferon-γ release assay)
11. Tested for prior exposure to toxoplasma gondii by measuring antitoxoplasma IgG (immunoglobulin G)
12. Screened for evidence of HBV (hepatitis B virus) infection with detection of HBsAg (hepatitis B surface antigen), HBsAb (hepatitis B surface antibody), and antibody to hepatitis B total core antigen (anti-HBc or HBCAb); Vaccination should be recommended for nonimmune sexual partners of patients who are positive for HBsAg
13. Annually thereafter for those at risk – HCV (hepatitis C virus) RNA should be ordered on those with a positive HCV antibody test
14. Hepatitis A vaccine may be considered for all other nonimmune patients (negative anti-HAV total or IgG antibody)
15. G6PD (glucose 6-phosphate dehydrogenase) level if considering antioxidant drugs

Screening for Other STDs: Women with HIV

- Syphilis
- Trichomoniasis
- Chlamydia and gonorrhea
  - repeat annually if at risk and repeat testing in 3 months, as risk of reinfection is high
- Cervical pap
  - test performed upon initiation of care
  - repeated at 6 months and annually thereafter
  - HPV (human papilloma virus) testing is recommended for abnormal paps
- Anal pap
  - should be done on women with a history of receptive anal intercourse, abnormal cervical pap test results, or genital warts
Other Preventative Services

- **Mammograms**
  - mammography should be performed annually in women aged >50 years
    - strong recommendation
    - high-quality evidence
  - women aged 40-49 need an individual risk assessment regarding the need of mammography

- **DEXA (dual energy X-ray absorptiometry)**
  - baseline bone densitometry screening for osteoporosis in HIV-infected patients should be performed in postmenopausal women and men aged ≥50 years

- **CXR (chest X-ray)**
  - if patient has a positive PPD or preexisting lung conditions

- **Colonoscopy (Dr. Hudson's additional recommendation)**
  - not listed in the IDSA guidelines, but can be considered in aging patients

Vaccinations That Should be Offered if Indicated

- **Pneumococcal infection**
  - strong recommendation
  - high-quality evidence
  - should receive a dose of PCV13 (Prevnar 13), followed by a dose of PPV23 (Pneumovax) at least 8 weeks later
  - if previously vaccinated with PPV23, give PCV13 at least 1 year after PPV23

- **Influenza**
  - strong recommendation
  - high-quality evidence

- **Varicella**
  - strong recommendation
  - moderate-quality evidence

- **Hepatitis A and B**
  - strong recommendation
  - high-quality evidence

- **HPV vaccine**
  - indicated for both males and females aged 9-26 years

- **Tetanus toxoid**
  - substitute 1-time dose of Tdap (tetanus, diphtheria, and pertussis) vaccine at time of next booster, thenTd (tetanus and diphtheria) every 10 years
Women and HIV

If you have any questions about the program you have just watched, you may call us at: (800) 424-4888 or fax (806) 743-2233. Direct your inquiries to Customer Service. Be sure to include the program number, title and speaker.

Nursing I 33215