The number of women living with HIV/AIDS has been steadily increasing worldwide. According to WHO, at the end of 2003, there were 19.2 million women living with this disease; the overwhelming number of whom contracted the virus heterosexually. Women are biologically more vulnerable to HIV infection than men because they have larger mucosal surfaces and because more of the HIV virus is found in sperm than in vaginal secretions. Many studies reveal that having a sexually transmitted infection (STI), especially one that causes vaginal or vulvar ulcerations—such as genital herpes, syphilis, human papillomavirus, or chancroid—greatly increases a woman’s risk of becoming infected with HIV.

Gynecological Problems Associated with HIV-positive Women

Women suffer from the same complications of HIV infection as men, but also suffer gender-specific manifestations. Gynecological complications are critically important because they are the most commonly reported conditions of women living with HIV/AIDS and can be more serious and difficult to treat. For many women, repeated gynecological conditions are the first signs of immunologic suppression that are the result of an HIV infection. The most common conditions observed in women with HIV/AIDS are recurrent vaginal yeast infections, human papillomavirus, herpes simplex virus, and other STIs that increase the risk of gynecological, especially cervical, cancer.

Vaginal candidiasis

Vaginal yeast infections are common in many women, but in HIV-positive women they are usually recurrent and often are the first symptoms of HIV. Repeated yeast infections and those that are less responsive to treatment over time are signs of a weakening immune system. In women with CD4+ cell counts less than 200, the risk for repeated yeast infections of the vagina, mouth, and throat increases. Fortunately, there are several effective methods—both local and systemic—to treat such infections, such as Clotrimazole, Fluconazole, and Nizoral. These drugs, combined with dietary modifications—such as decreasing sugar intake—and other preventive measures—such as avoiding douching, using scented soaps, and wearing tight clothes or non-cotton underwear—provide the best results and help to prevent recurrent infections.

Herpes simplex virus II (HSV-2)

Genital herpes, caused by HSV-2, results in painful sores that usually affect the vulva and anal area. The occurrence of HSV-2 outbreaks tend to be more frequent, last longer, and require higher doses of treatment in HIV-positive women compared with those who are HIV-negative. Though HSV-2 can present as a latent infection, it can also appear anytime, especially in those with weak immune systems. Oral acyclovir is commonly used to
Table 1: Comparison of the Bethesda and Cervical Intraepithelial Neoplasia (CIN) Systems for reading Pap smears.

<table>
<thead>
<tr>
<th>Bethesda system</th>
<th>CIN</th>
<th>Pap smear results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative for squamous intraepithelial lesions or dysplasia</td>
<td>NA</td>
<td>There are no abnormal cell changes detected.</td>
</tr>
<tr>
<td>Atypical (unusual) squamous cells of undetermined significance (ASCUS)</td>
<td>Atypia</td>
<td>There may be inflammation in the cervix, but it is impossible to determine whether cells are abnormal or normal. Suggest follow-up with colposcopy.</td>
</tr>
<tr>
<td>Low-grade squamous intraepithelial lesions (LGSIL)</td>
<td>CIN I</td>
<td>Mild cell abnormalities (dysplasia) are present on the superficial layers of the cervix. For HIV-positive women, treatment is not considered standard. Careful monitoring is strongly recommended.</td>
</tr>
<tr>
<td>High-grade squamous intraepithelial lesions (HGSIL)</td>
<td>CIN II, CIN III</td>
<td>Moderate to severe cell abnormalities (dysplasia) and/or precancerous lesions. Treatment is obvious.</td>
</tr>
</tbody>
</table>


Dysplasia refers to abnormal changes in the size, shape, or appearance of the cervical cells. Although it is not a cancer, if left untreated some types of dysplasia do become cancerous. Higher grade lesions—CIN II and CIN III, or moderate and severe dysplasia—respond poorly to standard therapies and exhibit a high recurrence rate in HIV-positive women. Regular and timely screening is very important because if detected early, low grades of dysplasia—CIN I, or mild dysplasia—are treatable by different methods, including chemical coagulation, diathermo-coagulation, electro-cauterization, laser vaporization, and cryotherapy. HPV is often diagnosed visually or with a Pap smear, colposcopy, and/or biopsy.

**Human Papillomavirus (HPV)**

HPV primarily affects the uterus, cervix, and/or anus and is strongly associated with the occurrence of cervical dysplasia (or cervical intraepithelial neoplasia, CIN) and cervical cancer. It is highly prevalent in HIV-positive women and its severity is associated with the women's degree of immunosuppression. Recent studies demonstrate that HIV-positive women, especially those with low CD4+ cell counts, have an increased frequency and severity of HPV-related cervical neoplasia or dysplasia.

Untreated gynecological conditions, especially chlamydia and gonorrhea can lead to pelvic inflammatory disease (PID) and cervicitis, which are more severe and resistant to therapy in HIV-positive women.

**Menstrual disorders**

Several recent studies report menstrual disorders associated with HIV infection. Menstrual irregularities appear to be more frequent as the HIV disease progresses, for example in women with a lower CD4+ count. These disorders include irregular periods, abnormally heavy or light periods, intermenstrual bleeding, and worsening of PMS symptoms. They may be aggravated by weight loss, anemia, HIV medications, substance abuse, and depression—all conditions that are common in HIV-positive women. There are no current treatment standards for menstrual disorders in HIV-positive women. Hormonal therapy is an option; stress management and good nutrition may also relieve symptoms.

**Screening and Prevention**

Because women with HIV/AIDS have higher rates and more severe cases of gynecological conditions, it is extremely important for them to get frequent and regular screenings that include Pap smears, colposcopy, and, when necessary, biopsy. Pap smear is a routine cytological examination where cells are collected from the transition zone between the cervix and anus. For HIV-positive women with CD4+ cell counts below 300—or whose cell counts are dropping—Pap smears are recommended at least once every six months if the result of the previous Pap smear was normal. If there is inflammation, Pap smears should be repeated every three months. If the result of the Pap smear is abnormal, further tests, such as a colposcopy and/or biopsy, are strongly recommended. The problem with Pap smears is that they treat this infection. For women with frequent HSV outbreaks, daily acyclovir can be helpful in preventing future occurrences.
have false-negative results in 15-30 percent of cases, which is why many obstetricians/gynecologists recommend a colposcopy even if the results of a Pap smear are negative—or normal—especially in HIV-positive women when early detection of gynecological problems is critical.9

The accurate reading of a Pap smear result is very important. There are two classification systems used widely in the world: the Bethesda System and Cervical Intraepithelial Neoplasia (CIN). Table 1 explains what the results of a Pap smear mean according to these two systems.

A colposcopy is usually the next step after a Pap smear examination. Colposcopic examination using acetic acid helps to detect abnormal zones of epithelial transformation that appear white. If in addition to positive Pap smear results colposcopic results are also positive, a biopsy should be performed for confirmation of the diagnosis.

**Health Education and Counseling HIV-positive Women**

HIV-infected women have different needs relative to health education and counseling, especially in terms of their reproductive health. The most important topics to discuss with women living with HIV are mother-to-child transmission (MTCT) of the disease, family planning options, prevention of other STIs, and prevention of other strains of HIV. Even if women have access to gynecological services, some providers limit or deny HIV-positive women access to this knowledge, even in developed countries such as the United States.

Medical providers who counsel women with either a known or suspected HIV-positive status should adopt a neutral attitude and provide the patient—and, ideally, her partner—with relevant information, including details about her life expectancy and family planning options—such as choice of contraceptive method(s)—given her HIV status. They should also discuss the following facts:

- Pregnancy does not appear to accelerate HIV progression, even among women not receiving antiretroviral therapy (ART).
- An HIV-positive mother can transmit the virus to her child and rates of MTCT in developing countries can exceed 40 percent.
- Preventive ART can reduce the risk of MTCT.
- In the postpartum period, HIV progresses, i.e. the CD4+ count decreases and, without treatment, a woman is likely to develop AIDS and die.10

Given the fact that many HIV-positive women choose not to have more children, complete information about contraceptive options should always be provided. They need to know that latex male and female condoms offer the best protection for partners of HIV-positive women against HIV contraction, as well as for the women themselves against other STIs and strains of HIV.11 An HIV-positive woman should be shown how to correctly use a condom and should be coached in the appropriate skills to negotiate condom usage with her partner.12

If her intention is to avoid pregnancy, an HIV-infected woman should be encouraged to use a dual method of protection, such as a condom for disease prevention and another contraceptive method for pregnancy prevention. If the woman knows that she does not want to have children, a good option for pregnancy prevention for HIV-positive women is sterilization, however this option should never be forced on anyone, nor should she be told that she cannot or should not bear children if she chooses to do so.

All hormonal contraceptive methods are good options for HIV-positive women, even for those who have already developed AIDS. For selection of a hormonal contraceptive, the same clinical criteria should be used as for HIV-negative women. According to WHO guidelines, the use of IUDs by HIV-positive women should be avoided due to concerns about pelvic infections and increased blood loss. Likewise, the lactational amenorrhea method—a temporary contraceptive option used for six months after delivery by women whose newborns are exclusively breastfeeding—is not a good option for HIV-positive women because the risk of MTCT through breast milk

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is high at approximately 16 percent. To eliminate this risk, WHO recommends using infant formulas instead of breastfeeding.\(^{13}\)

**Providing Unconditional Support**

All healthcare workers who counsel and treat women with a known HIV status or who are suspected of being HIV-positive need to remember that they must support each woman’s decision about family planning and other reproductive health issues even if they disagree with it. Women living with HIV/AIDS must be treated with the same respect as any other female patient at the same time that they are given more attention to their physical, gynecological, and psychological needs related to HIV/AIDS. Healthcare workers at every level must remember that when treating any patient, especially one from such a vulnerable population, they must not only perform examinations and prescribe medications, but provide psychological, social, and moral support as well. ■

**References**

3. Ibid.
13. Ibid.