



Florida/Caribbean AIDS Education and Training Center

HIV CareLink

A Newsletter for HIV/AIDS Primary Care Providers

ABOUT US

The Florida/Caribbean AIDS Education and Training Center provides state-of-the-art HIV education, consultation, and resource materials to health care providers in Florida, Puerto Rico and the US Virgin Islands.

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Women's Health: Cervical Cancer Screening

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There has been some controversy concerning the guidelines for cervical cancer screening in women in the general population as evidenced by comparing the recommendations of the American Cancer Society to the recommendations of the American College of Obstetricians and Gynecologists (ACOG). **However, the two agencies are in agreement that HIV-infected women should be screened at diagnosis, 6 months after diagnosis, and yearly thereafter if the test results are normal.**

The American Cancer Society recommends screening women in the general population about 3 years after they begin having vaginal intercourse, but no later than age 21. The ACOG states screening should start at age 21 to prevent unneeded and potentially harmful evaluation and treatment in these young women with a very low risk of cancer.

Both agencies have recommended extending the period of time between screenings (see table below) for women in the general population.

The table compares the two agencies' recommendations for women in the **general population** except where noted:

CERVICAL CANCER SCREENING RECOMMENDATIONS

| | American Cancer Society | ACOG |
|-------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| When to start screening | Start about 3 years after intercourse, but no later than 21 years old. | Start at age 21. Screening prior to age 21 is not recommended; may lead to unnecessary and harmful evaluation and treatment in women at very low risk of cancer. Level A |
| What test to use | Either a conventional (regular) Pap test or liquid-based Pap test can be used. | Both conventional and liquid-based methods are acceptable. Level A |

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| | American Cancer Society | American College of Obstetricians and Gynecologists (ACOG) |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency of screening | <p>Women ages 21-29, should be screened using a regular Pap test yearly. If a liquid-based Pap test is used, test every 2 years.</p> <p>Women aged ≥ 30, who have had 3 normal Pap test results in a row, testing may be done every 2 to 3 years with a regular Pap test or the liquid-based Pap test.</p> <p>Another reasonable option for women ≥ 30 (who have normal immune systems and no abnormal Pap test results) is to get tested every 3 years (but not more frequently) with a Pap test (regular or liquid-based) plus the HPV DNA test.</p> <p>Maintain yearly testing if exposed to diethylstilbestrol (DES) before birth, history of treatment for a pre-cancer or weakened immune system (from HIV infection, organ transplant, chemotherapy, or chronic steroid use).</p> | <p>Women ages 21-29 should be screened with a Pap test every 2 years. Level A</p> <p>Women aged ≥ 30 years may extend the interval to every 3 years if they have had 3 consecutive negative cervical cytology screening test results, have no history of cervical intraepithelial neoplasia (CIN) 2 or CIN 3, are HIV- negative, are not immunocompromised, and were not exposed to diethylstilbestrol in utero.</p> <p>Although screening frequency can be decreased in the general population (i.e. HIV negative) for those > 21 years of age, HIV-infected women should be screened yearly. Level A</p> |
| Post hysterectomy screening | <p>Unless the surgery was done as a treatment for cervical cancer or pre-cancer, women who have had a total hysterectomy (removal of the uterus and cervix) may opt to stop having cervical cancer testing. Women who have had a hysterectomy not including removal of the cervix (a supra-cervical hysterectomy) should continue cervical cancer screening.</p> | <p>Routine cytology testing should be discontinued In women who have had a total hysterectomy for benign indications and have no prior history of high grade CIN. Level A</p> |
| When to stop screening | <p>Women ≥ 70 years of age who have had 3 or more normal Pap test results in a row and no abnormal Pap test results in the past 10 years.</p> <p>Testing should continue if history of cervical cancer, DES exposure before birth, HIV infection, or a weakened immune system as long as they are in good health.</p> | <p>Since cervical cancer develops slowly and risk factors decrease with age, it is practical to discontinue cervical cancer screening between the ages of 65 and 70 in women who have had 3 or more negative cytology test results in a row and no abnormal test results in the past 10 years. Level B</p> |

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CERVICAL CANCER SCREENING RECOMMENDATIONS (Continued)

| | American Cancer Society | ACOG |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HPV Testing | <p>If vaccinated against HPV-16 and HPV-18 (the cause of 90% of genital warts), screen by the same routine as non-immunized women; the vaccine does not protect against all cancer-causing types of HPV.</p> <p>The HPV DNA test can be performed along with a Pap test (regular or liquid-based) in women >30 years (who have normal immune systems and no abnormal Pap results) every 3 years (but not more frequently).</p> | <p>Women who have been vaccinated against HPV-16 and HPV-18 should be screened by the same routine as non-immunized women. Level C</p> <p>Testing for HPV DNA presently is used in cervical cancer screening as a triage test to stratify risk to women aged 21 and older with a cytology diagnosis of ASC-US and postmenopausal women with a cytology diagnosis of LSIL. The testing may be used as an adjunct to cytology for primary screening in women older than 30 years, and as a subsequent test after CIN 1 or negative findings on colposcopy in women whose prior cytology diagnosis is ASC-US, LSIL, or atypical glandular cells, <u>and</u> in follow-up after treatment for CIN 2 and CIN 3.</p> |
| Miscellaneous | <p>The increased risk of cervical cancer in women with AIDS may be attributed to human immunodeficiency virus (HIV). The virus damages the body's immune system, causing more women to be more likely to become infected with HPV. Additionally, scientists believe that the immune system is vital in destroying cancer cells and slowing their growth and spread. In women infected with HIV, a cervical pre-cancer might develop into an invasive cancer more rapidly.</p> | <p>Regardless of the regularity of cervical cytology screening, providers also should inform their patients that annual gynecologic examinations may still be suitable even if cervical cytology is not performed at each visit. Level C</p> |

Note: The American Cancer Society does not have Levels of Recommendations. The Level of Recommendations for ACOG is as follows: Level A - Recommendations are based on good and consistent scientific evidence, Level B - Recommendations are based on limited or inconsistent scientific evidence, Level C - Recommendations are based primarily on consensus and expert opinion.

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Post-Hysterectomy Pap Smear Recommendations

Current guidelines by ACOG¹ and the U.S. Preventive Services Task Force (USPSTF)² clearly recommend that women who undergo a hysterectomy due to cervical dysplasia (CIN II or III) be followed with vaginal cytology (Pap) irrespective of the HIV serostatus until at least 3 consecutive negative results. For HIV-negative women routine screening may be discontinued after 3 consecutive satisfactory negative cervical cytology results are obtained.¹

The Women's Interagency HIV Study (WIHS) demonstrated a correlation between genital tract dysplasias (particularly CIN) and CD4 absolute count.⁴ No HPV-negative participants in any of the groups defined by level of CD4, developed high-grade squamous intraepithelial lesions (HSIL) within 3 years. Multivariate Cox models showed that on a relative scale, the incidence of any squamous intraepithelial lesion (SIL) among HIV-seropositive women with CD4 counts greater than 500/ μ L (hazard ratio [HR], 1.2; 95% CI, 0.5-3.0), but not those with CD4 counts less than or equal to 500/ μ L (HR, 2.9; 95% CI, 1.2-7.1), was similar to that in HIV-seronegative women.⁴ Women with CD4 cell counts < 200/ μ L had a doubled increase in both incidence and prevalence of SIL and in non-regression from untreated low-grade SIL when compared with women with CD4 cell counts > 500/ μ L. In addition, these women had a poorer outcome to treatment of high-grade cervical intraepithelial neoplasia.⁵

The HIV Epidemiology Research study (HER) reported on 102 HIV-infected women who underwent hysterectomy for a variety of indications. Sixteen (16%) developed vaginal intraepithelial neoplasia within the first few years after their surgery.

Editorial Comment: Carmen Zorrilla, MD

In practice, many HIV specialists continue monitoring with cytology (Pap) for all women living with HIV even after a hysterectomy for benign reasons. This is due to the high rate of reported CIN in women living with HIV such as in the HER study. Women with risk factors such as HPV, low CD4 (<500) or previous CIN should be followed more closely (every six months).

HPV testing

Since HPV is more frequent among women living with HIV and has been associated with an increase risk of cervical dysplasia, it might be reasonable to think that HPV testing could be used to guide the frequency of screening for women living with HIV. If HPV testing is negative and the cervical cytology is also negative, screening could be carried out annually. Women who test positive for high-risk HPV could be tested more frequently than the general population. The American Society for Colposcopy and Cervical Pathology (ASCCP) recommends a

colposcopy for women (older than 30 years) with a positive HPV test (high risk) and a negative cytology. Thus, women living with HIV could be screened every six months, but there are no specific guidelines regarding the use of colposcopy for these cases.

Nevertheless, and in agreement with the data from the WIHS, CD4 counts perhaps are a better predictor for SIL and I would recommend their use to guide screening frequencies: annually if *current* CD4 > 500, more frequent (every 6 months) for those with low (< 500) CD4 counts.

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