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patient for colposcopy. (A2)

- should refer for colposcopy. (A3) If at 1 year the HPV test result is positive, the clinician should refer the
- result is negative, the clinician should repeat cervical cytology and HPV testing 1 year following (A3); alternatively, if the patient has a history of cervical dysplasia or individual risk factors for cervical cancer, the clinician
- 3 years. (A2)

   If at 1 year the cervical cytology result indicates ASC–US and the HPV test

  VQH has vapoloty result is regarive, the clinician should repeat servical cytology and HVV
  - If at 1 year the cervical cytology and HPV test results are negative, the clinician should resume standard cervical cytology testing every
    - cervical cytology and HPV testing at 1 year. (A2)
  - colposcopy. (A2)  $\cdot$  If the reflex HPV test result is negative, the clinician should repeat both the
- should perform reflex HPV testing. (A2)
  If the reflex HPV test result is positive, the clinician should refer the patient for
- When the cervical cytology result of ASC-US is returned for a patient <30 years old or for a patient ≥30 years old who did not receive cotesting, the clinician

#### Follow-Up of Abnormal Cervical Cytology Results

ideally within 6 weeks postpartum. (A2)

- Clinicians should follow up on abnormal cytology or colposcopy results,
- When cervical dysplasia is diagnosed, clinicians should ensure that patients understand the potential risks and benefits and engage pregnant patients in
- positive HPV, ASC-H, or LSIL or greater. (A3) When cervical dysplasia is diagnosed. clinicians should ensure that patients
- colposcopy providers when the following cervical cytology results are obtained: repeated ASC-US, ASC-US with HPV, negative cytology with persistently
- with HIV as appropriate for each patient's age. (A21) Clinicians should refer pregnant patients for follow-up with experienced
  - Clinicians should perform cervical cytology screening for pregnant patients

#### Screening for Cervical Dysplasia During Pregnancy

After a patient has undergone cervical excision, clinicians should perform cervical cytology with HPV testing as follows: at 6 months post-excision, annually until 3 sequential negative test results have been obtained, and every 3 years thereafter for at least 25 years. (A3)

Post-Cervical Excision HPV Testing

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ALL RECOMMENDATIONS (continued from P.2)

#### **ALL RECOMMENDATIONS** (continued from P.3)

#### Follow-Up of Abnormal Cervical Cytology Results, continued

 When a patient of any age with HIV has a cervical cytology result of LSIL, HSIL, ASC-H, AGC, or AIS, the clinician should refer for colposcopy regardless of the HPV test result. (A2)

**Note:** Cervical cytology with concomitant HPV testing (i.e., cotesting) is recommended for patients with HIV who are ≥30 years old. For individuals <30 years old, a reflex HPV test is performed in response to an abnormal cytology result and not concurrently with cervical cytology.

#### **Management of Cervical Cancer**

- Clinicians should immediately refer patients with HIV and a diagnosis of cervical cancer to a gynecologic oncologist or surgeon trained in the management of cervical cancer. (A\*)
- Clinicians should closely monitor patients with a history of cervical cancer with possible consultation with a gynecologic oncologist after definitive treatment for cancer, which may include surgery, radiation, and chemotherapy. (A3)

**Abbreviations:** AGC, atypical glandular cells; AIS, adenocarcinoma in situ; ASC-H, atypical squamous cells, high-grade squamous intraepithelial lesions cannot be excluded; ASC-US, atypical squamous cells of undetermined significance; ART, antiretroviral therapy; CIN, cervical intraepithelial neoplasia; HPV, human papillomavirus; HSIL, high-grade squamous intraepithelial lesion; LSIL, low-grade squamous intraepithelial lesion; STI, sexually transmitted infection.



 Use this code with your phone's QR code reader to go directly to a mobile-friendly version of the guideline.

This 1/4-Folded Guide is a companion to the New York State Department of Health AIDS Institute guideline Screening for Cervical Dysplasia and Cancer in Adults With HIV. The full guideline is available at www.hivguidelines.org.

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hysterectomy and to obtain the pathology report.

**Note:** Every possible effort should be made to determine the reason for a patient's

for 25 years. (A3)

under "age-based screening" above. (A21)
If a patient's hysterectomy was performed to treat HSILs, CIN 2 or CIN 3, or AlS, clinicians should perform 3 consecutive annual HPV tests, after which long-term surveillance should be initiated, with HPV testing every 3 years

as above. (A\*) • In patients with HIV who have undergone total hysterectomy (uterus and cervix removed), clinicians should screen for vaginal intraepithelial neoplasia by performing vaginal cytology with HPV cotesting and manage as noted

Post-Hysterectomy Cancer Screening
In patients with an intact cervix, clinicians should perform cervical cytology

routine STI screening.

Clinicians should perform concomitant anal cytology. If appropriate follow-up of abnormal results is not available within the clinician's institution, a referral plan should be in place. For evidence-based recommendations, see NYSDOH Al guideline Screening for Anal Dysplasia and Cancer in Patients With HIV.

Pregardless of a patient's cervical cytology results, clinicians should perform

#### Concomitant Screening for Anal Cancer and STIs

screening. (A3)

Clinicians should continue cervical cancer screening for patients ≥65 years old; however, factors such as a patient's life expectancy and risk of developing cervical cancer should inform shared decision-making regarding continued

- Clinicians should repeat cervical cytology after 2 months but within  $\varphi$  months after a result of "insufficient specimen for analysis" has been reported. (A3)
- For patients ≥30 years old, clinicians should perform cytology/HPV cotesting within 3 years of previous testing. (A2) If the baseline cytology and HPV test results are negative, clinicians should repeat both tests every 3 years thereafter. (A2)

• For patients <30 years old, testing for HPV is not recommended. (A21) For these patients, clinicians should perform cervical cytology within at least 2 years of the onset of receptive sexual activity or by age 21 years, regardless of the mode of HIV acquisition (A2), and if cytology results are normal, repeat testing every 3 years. (A2)

Age-Based Screening

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**ALL RECOMMENDATIONS** 

ALL RECOMMENDATIONS (continued from P.1)

# HIV CLINICAL RESOURCE ## 1/4-FOLDED GUIDE VISIT HIVGUIDELINES.ORG TO LEARN MORE OR VIEW COMPLETE GUIDE



2.9

P.4

SCREENING FOR CERVICAL DYSPLASIA AND CANCER IN ADULTS WITH HIV

NYSDOH AIDS INSTITUTE HIV CLINICAL GUIDELINE

MARCH 2022

P.1

## HPV Prevention

Given the increased lifetime risk of persistent HPV infection and increased prevalence of HPV-related cancers, clinicians should recommend the 9-valent HPV vaccine 3-dose series at 0, 2, and 6 months to all individuals with HIV who are 9 to 45 years old regardless of CD4 cell count, prior cervical or anal screening results, HPV test results, HPV-related cytologic changes, or other history of HPV-related lesions. (A3)

#### **Cervical Cancer Prevention**

- In providing comprehensive primary care for adults with HIV, clinicians should ensure that patients at risk of cervical cancer receive age – and risk-appropriate screening (A3) and provide education about harm reduction measures that may reduce the risk, including:
  - HPV vaccination (A2)
  - ART to suppress HIV viral load (A2)
  - Tobacco use cessation (A2)
  - Sexual exposure prevention strategies, including using barrier protection (A3) and reducing the number of sex partners and associated sexual networks when possible (A3)
- Clinicians should establish a schedule for routine cervical screening based on a patient's medical history, anatomical inventory, age, and risk profile. (A2)

#### **Screening for Cervical Abnormalities**

- Clinicians should perform an anatomical inventory to identify patients eligible for screening. (A\*)
- Clinicians should perform screening for cervical and genital tract dysplasia and cancer in patients with HIV who have or have had a cervix and meet the below criteria for age-based screening. (A2)
- Clinicians should perform physical examinations of the vulva, vagina, and anogenital perineum at least annually and at the time of cervical cytology and to assess interval complaints. (A3) Abnormal cytology results may reflect vaginal, vulvar, or anogenital dysplasia in the absence of cervical dysplasia.

Continued on next panel >

#### FIGURE 1: Follow-Up for Abnormal Cervical Cytology Results in Patients With HIV Cervical cytology results obtained with HPV testing as recommended [a] Result: ASC-US + HPV positive or ASC-H, LSIL, or HSIL regardless of HPV status Result: ASC-US + HPV negative Repeat cervical cytology and HPV test in 1 year ASC-US negative ASC-US positive ASC-US positive Perform or refer for colposcopy and and and HPV negative HPV positive HPV negative Consider repeat cytology and Resume routine Result: CIN 1 (benign, atypia), or CIN 2, cervical cytology HPV cotest at 1 year or refer or CIN 3, or no CIN 2 or 3 [b,c,d] every 3 years for colposcopy ASC-US negative ASC-US positive Manage as per recommendations and and of ASCCP: 2019 ASCCP Risk-Based HPV negative HPV positive Management Consensus Guidelines for Abnormal Cervical Cancer Screening Tests and Precursors [e]

**Abbreviations:** ASC-H, atypical squamous cells, high-grade squamous intraepithelial lesion cannot be excluded; ASC-US, atypical squamous cells of undetermined significance; ASCCP, American Society for Colposcopy and Cervical Pathology; CIN, cervical intraepithelial neoplasia; HPV, human papillomavirus; HSIL, high-grade squamous intraepithelial lesion; LSIL, low-grade squamous intraepithelial lesion.

#### Notes:

- a. In patients <30 years old, HPV reflex testing should be performed in patients with a positive cervical cytology result; in patients ≥30 years old, HPV cotesting is recommended.
- b. If cotesting was not performed, then HPV reflex testing is indicated following an abnormal cytology result.
- c. For non-high-grade CIN, refer to ASCCP recommendations for management of LSIL (CIN 1) preceded by ASC-H or HSIL cytology.
- d. In patients <25 years old, immediate excision is not recommended; in nonpregnant patients ≥25 years old, the decision regarding expedited treatment versus colposcopy with biopsy should be based on shared decision-making between the patient and clinician.
- e. Perkins RB, Guido RS, Castle PE, et al. 2019 ASCCP riskbased management consensus guidelines for abnormal cervical cancer screening tests and cancer precursors. *J Low Genit Tract Dis* 2020;24(2):102–131.

  [PMID: 32243307]

## **8**→ SELECTED KEY POINTS

#### **HPV Prevention**

- HPV vaccination status does not change the schedule of cervical cancer screening.
- HPV testing is not recommended before administration of the HPV vaccine.
- Inform patients with HIV about the risk of acquiring HPV and other STIs from close physical contact with the external genitalia, anus, cervix, vagina, urethra, mouth and oral cavity, or any other location where HPV lesions are present.
- Consistent and correct condom use remains an effective way to reduce the risk of transmission of most STIs. Inform patients that barrier protection such as condoms and dental dams may not fully protect against HPV.

#### **Screening for Cervical Abnormalities**

- Compassionate engagement in shared decision-making is crucial when navigating extended screening intervals or discontinuation of screening based on a patient's lifetime prognosis. Consider duration of HIV infection, viral load and CD4 cell count over time, and history of abnormal Pap test results and anogenital HPV lesions.
- Cervical screening every 5 years may benefit virally suppressed patients adherent to HIV and primary care with negative cytology and HPV test results, no genital or pelvic complaints, no tobacco use, and no other cervical cancer risk factors.
- Inclusive and culturally sensitive healthcare includes a safe and welcoming environment that acknowledges the needs of transgender, transmasculine, transfeminine, and nonbinary patients.
- Ask about all gender-affirming and gynecologic surgical procedures to help inform screening for HPV-related cancers.
- To facilitate accurate interpretation of cell morphology, note testosterone use and the presence of amenorrhea in the requisition for cervical cytology in transgender men.

### Follow-Up of Abnormal Cervical Cytology Results

 Any cervical cytology result of AGC requires immediate follow-up with colposcopy and further evaluation. This committee strongly encourages all facilities that provide medical care for patients with HIV to develop a clinical pathway for the screening, diagnosis, and treatment of abnormal anal cytology results.

#### FIGURE 2: Follow-Up for Cervical Cytology Result of AGC in Patients With HIV [a] Cervical cytology result: AGC All subcategories except Atypical atypical endometrial cells, endometrial cells regardless of HPV test result Nonpregnant Perform or refer for individuals <35 years Nonpregnant endometrial and individuals ≥35 years old: old: Perform or refer endocervical sampling. for colposcopy with Perform or refer Colposcopy may also endocervical sampling. for colposcopy with If at risk for endometrial endocervical and be performed neoplasia, include endometrial sampling endometrial sampling [b] If colposcopy was not Abbreviations: AGC, atypical glandular cells; performed and no ASCCP, American Society for Colposcopy and endometrial pathology Cervical Pathology; HPV, human papillomavirus. is identified, perform or refer for colposcopy a. Adapted with permission from the ASCCP. See Perkins RB, Guido RS, Castle PE, et al. 2019 ASCCP risk-based management consensus guidelines for abnormal cervical cancer screening tests and cancer precursors. J Low Genit Tract Dis

2020;24(2):102-131. [PMID: 32243307]

b. Conditions that increase risk for endometrial

or conditions suggesting chronic anovulation.

neoplasia include abnormal uterine bleeding, obesity,