DEFINITION

A cervical cytology test is used to screen for cervical dysplasia and cancer. Current screening recommendations are listed in Attachment 1. Under certain circumstances, cytologic testing can be complemented by testing for high risk Human Papillomavirus (HR-HPV) using “co-testing”. Occasionally, the cervical cytological test can detect vaginal or endometrial abnormalities. The key to managing cervical abnormalities is to identify true cervical cancer precursors from benign cervical abnormalities with little malignant potential. The basis of these guidelines is the ACOG Practice Bulletin 140 released December 2013 and the 2012 Updated Consensus Guidelines from ASCCP. In general, patient management depends upon the degree of abnormality found and the patient’s history and age and is often influenced by HPV test results.

SUBJECTIVE

May include:
1. No symptoms.
2. Vaginal discharge
3. Vaginal bleeding or spotting.

OBJECTIVE

May include: Normal pelvic exam.

Must exclude: Suspicious lesions on cervix or in vagina. (Refer to MD for biopsy and other more complete evaluation).

LABORATORY

Must include at least one of the following:
1. Abnormal cervical cytology test result. (2006 Bethesda system abnormalities more serious than reactive reparative changes).
2. Positive high-risk HPV test done for screening in women ≥ age 30 or as part of follow-up of an abnormal cytology test.

ASSESSMENT

Patient with abnormal cervical screening test appropriate for advance practice nurse/physician assistant evaluation.

PLAN

1. In general, management depends on cytology test results, HPV status, previous history, and patient’s age.
2. Cytology unsatisfactory
   a. If HR-HPV unknown or negative, repeat cytology in 2-4 months.
      1) If repeat test negative, return to routine screening.
      2) If repeat test abnormal, follow guidance for evaluation of that abnormality.
      3) If repeat test unsatisfactory, refer to colposcopy.
   b. If HR-HPV positive, 2 options available:
      1) Option 1: Colposcopy
      2) Option 2: Repeat cytology in 2-4 months.
         a) If repeat test negative, do co-testing in 1 year.
         b) If repeat test abnormal, follow guidance for evaluation of that abnormality.
         c) If repeat test unsatisfactory, refer for colposcopy.
3. Cytology test negative for intraepithelial lesion, but absent or insufficient endocervical or transformative zone component, management depends upon the woman’s age.
   a. Women aged 21-29 years, routine screening is recommended. HPV testing is unacceptable.
   b. Women aged 30 years or older, 2 options available:
      1) Option 1: HR-HPV testing is preferred if no HPV test result yet available.
         a) If HR-HPV negative – return to routine testing
         b) If HR-HPV positive – 2 options available:
            (1) Repeat both tests in 12 months and manage according to those findings.
            (2) Perform genotyping (test for HPV 16/18). If positive for HPV 16 or 18, repeat colposcopy. If negative for HPV 16, 18, repeat co-testing in 1 year.
      2) Option 2: Repeat cytology in 3 years, if HPV testing not performed (acceptable).
4. **Inflammation:**
   a. In general, asymptomatic candida and BV do not require treatment.
   b. If trichomonas is detected, the woman needs treatment for herself and for her partner(s), if not previously treated.
   c. For actinomycosis in an IUD user, see *IUD complications: Actinomycosis* protocol. No treatment is needed for an asymptomatic IUD user.
5. **HR-HPV test** is positive but cytology demonstrates no abnormalities in women over 30; 2 options:
   a. Option 1: Repeat both tests (cytology and HR-HPV tests) in 12 months (acceptable).
      1) If both tests are negative in 12 months, repeat co-testing in 3 years.
      2) If repeat HR-HPV positive or cytology ≥ASC-US, refer for colposcopy.
   b. Option 2: HPV genotyping immediately (acceptable).
      1) If HPV-16 or HPV-18 positive, refer to colposcopy.
      2) If HPV 16, 18 negative, repeat co-testing in 1 year.
6. **ASC-US**
   a. **Women age 25 or older with ASC-US:** Two options are available:
      1) Option 1: Reflex test for HR-HPV immediately (preferred).
         a) If HR-HPV positive, refer for colposcopy with possible ECC.
         b) If HR-HPV negative, follow up depends on age.
            - Women 25-64, repeat co-testing in 3 years.
            - Women aged 65 or older, repeat co-testing 12 months (preferred) but cytology alone (acceptable).
      
      Note: If 3 consecutive cytology tests show ASC-US and are HR-HPV negative, refer to colposcopy.
      2) Option 2: Repeat cytology in 12 months (acceptable).
         a) Refer for colposcopy with possible ECC if repeat cytologic test ≥ASC-US.
         b) Return to routine screening if follow-up test is normal.
   b. **Women age 21-24 with ASC-US:** Two options exist:
      1) Option 1: see LSIL women age 21-24 (preferred).
      2) Option 2: Reflex HPV testing (acceptable)
         a) If HPV negative, return to routine screening.
         b) If HPV positive, see LSIL for women age 21-24.
   c. **Pregnant women with no prior abnormal Paps and/or colposcopy may be deferred until 6 weeks postpartum. Others need colposcopy.**
7. **LSIL**
   a. **Women older than 25 years (pregnant or non-pregnant):**
      1) LSIL cytology with no HPV test or positive HPV test, refer to colposcopy.
      2) LSIL cytology with negative HPV, 2 options exist:
         a) Option 1: Repeat co-testing in 12 months (preferred).
            1) If repeat cytology ASC-US or HR-HPV positive, refer to colposcopy.
            2) If cytology and HR-HPV negative, repeat cotesting at 3 years.
         b) Option 2: Colposcopy (acceptable).
      3) **Pregnant women with no prior history of significant cytologic abnormalities and LSIL may have colposcopy deferred until at least 6 weeks postpartum. Refer others to MD.**
   b. **Women 21-24 (pregnant or non-pregnant):** Repeat cytology at 12-months.
      1) If repeat cytology ASC-H, AGC or HSIL, refer to colposcopy.
      2) If repeat cytology negative, ASC-US or LSIL, repeat cytology again in 12 months (24 months from initial).
         a) If negative at 12 months and 24 months, return to routine screening.
         b) If 24 month cytology ≥ ASC-US, refer to colposcopy.
8. **ASC-H for women of all ages, refer for colposcopy.**
9. **HSIL for women age 21-24 and pregnant women of any age, refer for colposcopy.**
10. **HSIL for non-pregnant women ≥25,** two options exist:
    a. **Option 1: Colposcopy with ECC**
    b. **Option 2: Immediate Loop Electrosurgical excision (LEEP) – reserved for very experienced colposcopist.**
### PLAN (Continued)

11. **AGC or AIS:** Refer to Specialty Clinic for evaluation (colposcopy, ECC, EMB as needed). AGC includes atypical endocervical cells or atypical glandular cells not otherwise specified. ECC/EMB must be delayed in pregnant women.

12. Benign endometrial cells in women over 40 years of age:
   a. Reproductive age women: No follow-up needed unless the woman also has unexplained abnormal bleeding (e.g. intermenstrual spotting or bleeding, post coital spotting or bleeding).
   b. Postmenopausal women: If unexplained benign endometrial cells reported in postmenopausal women, refer to MD to assess endometrium (endometrial sampling or ultrasound evaluation of endometrial stripe) unless patient has undergone hysterectomy.

### PATIENT EDUCATION

1. Explain to patient the meaning of her cytological test abnormality and the possible long term implications for her health and that of her sexual partner.
2. Advise that most low grade lesions will regress spontaneously, but further tests are needed to fully understand the extent of her problem.
4. Reinforce importance of returning for scheduled follow-up care and future testing.
5. Recommend she examine her partner for visible external warts.
6. For women between ages 9 to 26, consider HPV vaccine for patient and all male partners age 9-26.

### REFER to MD/Specialty Clinic

1. Patients with suspicious findings on pelvic exam.
2. Patients with AGC or AIS.
3. Postmenopausal women and symptomatic premenopausal women with endometrial cells.
4. Pregnant women with abnormal pap smear requiring colposcopy.

### REFERENCES


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**Attachment 1: Recommendations for Cervical Cytology Screening**

**Initial Screening:**

Women under age 21: **Do not test**

*Exception:* If previously tested and abnormalities found, follow protocols in place at the time of the initial test.

Start at age 21.

**Women age 21-30:** Cytology every 3 years.

*Exception:* Annual testing needed if:
- Previous history of CIN2, CIN3, CIS or cervical cancer.
- HIV infection (first year following diagnosis of HIV, perform testing every 6 months).
- Immunosuppression.
- History of in utero DES exposure.

**Women age 30-65:** Two options exist for routine screening in previously screened women with at least 3 consecutive satisfactory and normal tests:

- **Option 1:** Cytology tests only every 3 years.
- **Option 2:** Co-testing (cytology and HR-HPV testing) every 5 years.

*Exception:* Annual testing needed if:
HIV infection (first year following diagnosis of HIV, perform testing every 6 months).
Immunosuppression.
History of in utero DES exposure.

**Stop screening:**
Following hysterectomy if done for benign condition and pathology report confirms no dysplasia

**Exception:** A routine testing needed for 20 years following diagnosis of ≥ CIN2 lesions.
Women who are 65 years or older if they have had 3 consecutive normal tests with satisfactory samples in the previous 10 years and have had no abnormal tests in that time period.