



## Complete Summary

---

### GUIDELINE TITLE

Cervical cytology screening.

### BIBLIOGRAPHIC SOURCE(S)

American College of Obstetricians and Gynecologists (ACOG). Cervical cytology screening. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 2003 Aug. 11 p. (ACOG practice bulletin; no. 45). [79 references]

### GUIDELINE STATUS

This is the current release of the guideline.

## COMPLETE SUMMARY CONTENT

SCOPE  
METHODOLOGY - including Rating Scheme and Cost Analysis  
RECOMMENDATIONS  
EVIDENCE SUPPORTING THE RECOMMENDATIONS  
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS  
QUALIFYING STATEMENTS  
IMPLEMENTATION OF THE GUIDELINE  
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT  
CATEGORIES  
IDENTIFYING INFORMATION AND AVAILABILITY  
DISCLAIMER

## SCOPE

### DISEASE/CONDITION(S)

Cervical cancer

### GUIDELINE CATEGORY

Screening

### CLINICAL SPECIALTY

Internal Medicine  
Obstetrics and Gynecology  
Oncology  
Pathology  
Pediatrics

## **INTENDED USERS**

Health Care Providers  
Physicians

## **GUIDELINE OBJECTIVE(S)**

- To aid practitioners in making decisions about appropriate obstetric and gynecologic care
- To provide a review of the best available evidence on screening for cervical cancer

## **TARGET POPULATION**

Sexually active women and adolescent girls

## **INTERVENTIONS AND PRACTICES CONSIDERED**

1. Cervical cytology screening
2. Timing of initial screening and frequency of screening
3. Standard versus liquid-based thin layer preparation
4. Concomitant human papillomavirus testing

## **MAJOR OUTCOMES CONSIDERED**

- Sensitivity and specificity of screening
- Incidence of cervical cancer

## **METHODOLOGY**

### **METHODS USED TO COLLECT/SELECT EVIDENCE**

Hand-searches of Published Literature (Primary Sources)  
Hand-searches of Published Literature (Secondary Sources)  
Searches of Electronic Databases

### **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

The MEDLINE database, the Cochrane Library, and the American College of Obstetricians and Gynecologists' own internal resources and documents were used to conduct a literature search to locate relevant articles published between January 1985 and May 2003. The search was restricted to articles published in the English language. Priority was given to articles reporting results of original research, although review articles and commentaries also were consulted. Abstracts of research presented at symposia and scientific conferences were not considered adequate for inclusion in this document. Guidelines published by organizations or institutions such as the National Institutes of Health and the American College of Obstetricians and Gynecologists were reviewed, and additional studies were located by reviewing bibliographies of identified articles.

## **NUMBER OF SOURCE DOCUMENTS**

Not stated

## **METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Weighting According to a Rating Scheme (Scheme Given)

## **RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

Studies were reviewed and evaluated for quality according to the method outlined by the U.S. Preventive Services Task Force:

**I:** Evidence obtained from at least one properly designed randomized controlled trial.

**II-1:** Evidence obtained from well-designed controlled trials without randomization.

**II-2:** Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group.

**II-3:** Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.

**III:** Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

## **METHODS USED TO ANALYZE THE EVIDENCE**

Review of Published Meta-Analyses  
Systematic Review

## **DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

Not stated

## **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Expert Consensus

## **DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Analysis of available evidence was given priority in formulating recommendations. When reliable research was not available, expert opinions from obstetrician-gynecologists were used. See also the "Rating Scheme for the Strength of Recommendations" field regarding Grade C recommendations.

## **RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS**

Based on the highest level of evidence found in the data, recommendations are provided and graded according to the following categories:

**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.

## **COST ANALYSIS**

Any woman aged 30 years or older who receives negative test results on both cervical cytology screening and human papillomavirus deoxyribonucleic acid (HPV DNA) testing should be rescreened no more frequently than every 3 years. The combined use of these modalities has been shown to increase sensitivity but also decrease specificity and increase cost. However, it has been estimated that the increase in screening interval will offset the cost of this new screening regimen.

## **METHOD OF GUIDELINE VALIDATION**

Internal Peer Review

## **DESCRIPTION OF METHOD OF GUIDELINE VALIDATION**

Practice Bulletins are validated by two internal clinical review panels composed of practicing obstetrician-gynecologists generalists and sub-specialists. The final guidelines are also reviewed and approved by the American College of Obstetricians and Gynecologists (ACOG) Executive Board.

## **RECOMMENDATIONS**

### **MAJOR RECOMMENDATIONS**

The grades of evidence (I-III) and levels of recommendation (A-C) are defined at the end of the "Major Recommendations" field.

**The following recommendations are based on good and consistent scientific evidence (Level A):**

- Annual cervical cytology screening should begin approximately 3 years after initiation of sexual intercourse, but no later than age 21 years.
- Women younger than 30 years should undergo annual cervical cytology screening.
- Women aged 30 years and older who have had three consecutive negative cervical cytology screening test results and who have no history of cervical

intraepithelial neoplasia (CIN) grade 2 or CIN 3, are not immunocompromised and are not HIV infected, and were not exposed to diethylstilbestrol in utero may extend the interval between cervical cytology examinations to every 2 to 3 years.

- Evidence-based data indicate both liquid-based and conventional methods of cervical cytology are acceptable for screening.
- Women who have undergone hysterectomy with removal of the cervix for benign indications and who have no prior history of CIN 2 or CIN 3 or worse may discontinue routine cytology testing.

**The following recommendations are based on limited and inconsistent scientific evidence (Level B):**

- Women previously treated for CIN 2 or CIN 3 who have completed their posttreatment follow-up should be monitored annually until at least three consecutive negative cytology screening results are documented.
- The use of a combination of cervical cytology and human papillomavirus (HPV) deoxyribonucleic acid (DNA) screening is appropriate for women aged 30 years and older. If this combination is used, women who receive negative results on both tests should be rescreened no more frequently than every 3 years.
- Women who have undergone hysterectomy with removal of the cervix and have a history of CIN 2 or CIN 3 should continue to be screened annually until three consecutive negative vaginal cytology test results are achieved.

**The following recommendations are based primarily on consensus and expert opinion (Level C):**

- Physicians should consider individualization in determining the time to begin screening, the interval between cervical cytology examinations, the age at which cervical cytology testing is no longer needed, and the testing methodology to be used. In addition to considering risk factors for cervical cancer, the provider ideally should be able to determine the patient's past screening history and reliably monitor the patient in the future.
- Evidence is inconclusive to establish an upper age limit for cervical cancer screening. If screening is discontinued, risk factors should be assessed during the annual examination to determine if reinitiating screening is appropriate.
- Yearly testing using cytology alone remains an acceptable screening plan.
- Regardless of the frequency of cervical cytology screening, women should be counseled that annual examinations, including pelvic examination, are still recommended.

**Definitions:**

**Grades of Evidence**

**I:** Evidence obtained from at least one properly designed randomized controlled trial.

**II-1:** Evidence obtained from well-designed controlled trials without randomization.

**II-2:** Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group.

**II-3:** Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.

**III:** Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

### **Levels of Recommendations**

**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.

### **CLINICAL ALGORITHM(S)**

None provided

## **EVIDENCE SUPPORTING THE RECOMMENDATIONS**

### **TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS**

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

## **BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS**

### **POTENTIAL BENEFITS**

Appropriate screening for cervical cancer

### **POTENTIAL HARMS**

False-positive test results can lead to unnecessary evaluation and treatment. False-negative results lead to undetected cervical cancer and associated morbidity and mortality.

## **QUALIFYING STATEMENTS**

### **QUALIFYING STATEMENTS**

These guidelines should not be construed as dictating an exclusive course of treatment or procedure. Variations in practice may be warranted based on the needs of the individual patient, resources, and limitations unique to the institution or type of practice.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

### IMPLEMENTATION TOOLS

Foreign Language Translations  
Patient Resources

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Staying Healthy

### IOM DOMAIN

Effectiveness  
Patient-centeredness  
Timeliness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

American College of Obstetricians and Gynecologists (ACOG). Cervical cytology screening. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 2003 Aug. 11 p. (ACOG practice bulletin; no. 45). [79 references]

### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

2003 Aug

### GUIDELINE DEVELOPER(S)

American College of Obstetricians and Gynecologists - Medical Specialty Society

## **SOURCE(S) OF FUNDING**

American College of Obstetricians and Gynecologists (ACOG)

## **GUIDELINE COMMITTEE**

American College of Obstetricians and Gynecologists (ACOG) Committee on Practice Bulletins-Gynecology

## **COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

Not stated

## **FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

Not stated

## **GUIDELINE STATUS**

This is the current release of the guideline.

## **GUIDELINE AVAILABILITY**

Electronic copies: None available

Print copies: Available for purchase from the American College of Obstetricians and Gynecologists (ACOG) Distribution Center, PO Box 4500, Kearneysville, WV 25430-4500; telephone, 800-762-2264, ext. 192; e-mail: [sales@acog.org](mailto:sales@acog.org). The ACOG Bookstore is available online at the [ACOG Web site](#).

## **AVAILABILITY OF COMPANION DOCUMENTS**

None available

## **PATIENT RESOURCES**

The following are available:

- Cancer of the cervix. Atlanta (GA): American College of Obstetricians and Gynecologists (ACOG); 2004. Electronic copies: Available from the [American College of Obstetricians and Gynecologists \(ACOG\) Web site](#).
- Abnormal Pap test results. Atlanta (GA): American College of Obstetricians and Gynecologists (ACOG); 2004. Electronic copies: Available from the [American College of Obstetricians and Gynecologists \(ACOG\) Web site](#).
- Human papillomavirus infection. Atlanta (GA): American College of Obstetricians and Gynecologists (ACOG); 2006. Electronic copies: Available from the [American College of Obstetricians and Gynecologists \(ACOG\) Web site](#). Copies are also available in Spanish.



Print copies: Available for purchase from the American College of Obstetricians and Gynecologists (ACOG) Distribution Center, PO Box 4500, Kearneysville, WV 25430-4500; telephone, 800-762-2264, ext. 192; e-mail: [sales@acog.org](mailto:sales@acog.org). The ACOG Bookstore is available online at the [ACOG Web site](#).

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

## **NGC STATUS**

This NGC summary was completed by ECRI Institute on October 12, 2007. The information was verified by the guideline developer on December 3, 2007.

## **COPYRIGHT STATEMENT**

This NGC summary is based on the original guideline, which is subject to the guideline developer's copyright restrictions.

## **DISCLAIMER**

### **NGC DISCLAIMER**

The National Guideline Clearinghouse™ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at <http://www.guideline.gov/about/inclusion.aspx>.

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

© 1998-2008 National Guideline Clearinghouse

Date Modified: 10/13/2008

