

Cervical Cancer Screening Recommendation

Background: Cervical cancer screening with the Pap test is very effective and has been responsible for the remarkable decrease in cervical cancer mortality over the past 50 years. As we increase our understanding of the accuracy, efficacy, and cost-effectiveness of current screening tests, such as conventional cytology (Papanicolou or Pap test) and liquid based cytology, and new screening tests, such as tests for the human papillomavirus (HPV), it is important that guidelines be regularly updated. In 2002 and 2003, national expert groups, such as the American Cancer Society (ACS), the American College of Obstetrics and Gynecologists (ACOG), and the U.S. Preventive Services Task Force (USPSTF), issued guidelines and/or recommendations regarding cervical cancer screening. This statement describes the position of the Early Detection Subcommittee of the NC Advisory Committee on Cancer Coordination and Control in relation to these recent guidelines.

Summary of recent guidelines: While the USPSTF recommendations are based on a systematic review of the literature, the ACS guidelines are produced by an expert panel and the ACOG guidelines by its Committee on Practice Bulletins. Despite differing methodologies, the three sets of guidelines and recommendations are in general agreement on many issues, particularly when to begin screening, whether to screen women who have had a hysterectomy, and appropriate screening intervals. The major discrepancies among the recommendations are in when to discontinue screening and in the use of new technologies. While the ACOG does not recommend an upper age limit for screening, the ACS recommends age 70 and the USPSTF recommends age 65. The USPSTF finds insufficient evidence to determine whether liquid based cytology is more effective than conventional Pap smear screening, whereas ACS and ACOG both recommend liquid based cytology as an alternative to conventional cytology.

The third discrepancy involves the use of DNA testing for the human papillomavirus (HPV), recognized as the causative agent of most cervical cancer. The ACS and ACOG each recommends that combined testing (HPV DNA testing in conjunction with cytology) can be considered as an alternative to routine Pap testing in women aged 30 and older, but that combined testing not be performed more frequently than every three years. The USPSTF finds insufficient evidence to recommend for or against HPV screening as an adjunct or alternative to regular Pap smear screening. None of these expert groups suggests using HPV testing alone for screening. The American Society for Colposcopy and Cervical Pathology (ASCCP), which focuses on the management of cervical abnormalities, recommends HPV testing as an alternative for the evaluation of Atypical Squamous Cells of Uncertain Significance (ASC-US).

Position of the Early Detection Subcommittee: The Early Detection Subcommittee (the Subcommittee) of the NC Advisory Committee on Cancer Coordination and Control (the Advisory Committee) endorses the cervical cancer screening guidelines of the ACS but with concerns regarding the use of HPV testing.

- Specifically, the Subcommittee agrees with recommendations that:

- Screening should begin three years after the onset of vaginal intercourse or no later than age 21.
- Screening may be discontinued in women who are age 70 and older, who have had three or more consecutive and technically satisfactory negative tests, and who have had no abnormal tests in the last 10-year period.
- Screening in women who have had a hysterectomy for benign disease is not indicated.
- Screening should be performed annually with cytology or every two years using liquid-based cytology; after age 30, women with three consecutive, satisfactory and normal results may be screened every 2 to 3 years (unless they have one or more conditions such as a history of in utero DES exposure or are HIV positive).
- Regarding the use of combined testing (testing for HPV in conjunction with the Pap test) for screening, **at this time** the Early Detection Subcommittee does not endorse its use.

Rationale for the Subcommittee position on combined testing: Although combined testing shows considerable promise, the Early Detection Subcommittee expresses the following concerns:

- As national expert groups generally agree, additional longitudinal data on the use of combined testing versus Pap test alone is needed to determine cost-effectiveness.
- Mathematical models suggest that combined testing may eventually save costs through decreased visits for follow-up testing and increased intervals between screenings. These savings, however, have not yet been demonstrated in a clinical study. In addition, it is anticipated that extensive patient and provider education will be necessary to ensure the combined test is not used more frequently than every three years.
- There is not yet sufficient evidence to formulate evidence-based clinical guidelines for the management of a screening test that is positive for HPV in the presence of normal cytology or a negative colposcopy. Consensus guidelines have been developed and will soon be available, but published studies are needed.
- The standard Pap test remains an effective method of screening for cervical cancer. Increased recruitment of women who have never been screened or who have not been regularly screened is currently the strategy that will result in the greatest gains in cervical cancer early detection, prevention, and mortality. More public health programs targeting the uninsured and underinsured are faced with limited funding. Without careful consideration of cost-effectiveness, resources should not be shifted toward newer technology at the cost of screening fewer women.

Anticipated updates to this position statement: Development and testing of HPV vaccines to prevent cervical cancer is ongoing and may eventually need to be incorporated into consideration of screening. Other technology and the evidence for the cost-effectiveness of various strategies for cervical cancer screening continue to evolve. As more data become available, the Subcommittee will review this position and determine if changes should be brought forward for Advisory Committee consideration.

ADOPTED: January 23, 2004