Increasing Adherence to Cervical Cancer Screening Guidelines

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ABSTRACT

The dramatic changes in the 2009 American College of Obstetrician and Gynecologists' (ACOG) cervical cancer screening guidelines created challenges in clinical implementation. When audited in October 2010, adherence to the new guidelines by clinicians in a university health center was 73.95%. After implementation of a multifaceted quality-improvement project, adherence significantly improved to 90.20%. This article discusses the components of a quality-improvement project focused on increasing providers' adherence to guideline-consistent practice.

Keywords: cervical cancer screening guidelines, evidence-based practice change, guideline implementation strategies, quality improvement, university health services

Invasive cervical cancer deaths have been reduced by 70% in the United States since the introduction of the Papanicolaou (Pap) test more than 50 years ago.[1,2] Providers, following previous guidelines based on the scientific knowledge at the time, performed the annual pap test starting within 3 years of sexual debut.[3–5] Current scientific evidence shows that human papillomavirus (HPV) causes cervical cancer; furthermore, research demonstrates that most young women clear cervical HPV without intervention.[6,7]

It is now known that the early cervical changes from HPV infection in young women resulted in unnecessary procedures and anxiety.[6] In this age category, Pap testing led to unnecessary colposcopies and invasive cervical procedures that produced anxiety for young women, increased cost of care, and placed these women at risk for cervical incompetence and premature deliveries.[6]

Moreover, in the half century since the advent of the original Pap test, newer cancer screening technologies, such as liquid-based cytology and HPV DNA testing, have become available.[8,9] These new technologies, specifically the latter, provide greater sensitivity to detect precancer and cancer and increase reproducibility.[2,8,9] Advances in the scientific knowledge about the natural course of HPV infection on the cervix and the new screening technologies have led to evidence that supports the current cervical cancer screening (CCS) guidelines of not screening women younger than 21 and less frequent screening for adult women.[7,10,11] Although there was scientific evidence to support these practice changes, barriers exist for implementation by providers at the point of care.[12]

Contributing to the complexity in CCS, more than 3 national organizations have issued guidelines. In 2009, the American College of Obstetricians and Gynecologists (ACOG) presented recommendations for significant practice change for providers, but the American Cancer Society (ACS) and US Preventive Services Task Force (USPSTF) guidelines remained the same.[3,4,13] The differences in the guidelines led to confusion for providers of women's health care. While there was overlap among the guidelines, recommendations regarding the initiation, frequency, and discontinuance of CCS and when to use HPV DNA co-testing varied.[1]

In 2012, all 3 organizations updated their guidelines to reflect more congruence in the screening protocol.[14–16] A summary of the organizations' guidelines are presented in Table 1.

Table 1. Comparison of National Cervical Cancer Screening Guidelines in 2012

	American Cancer Society[14]	US Preventive Services Task Force[15]	American College of Obstetricians and Gynecologists[16]
Screening initiation age	21	21	21
Screening method and intervals for women 21 to 29	Pap test every 3 years No HPV DNA testing for women between 21 and 29 unless needed for an abnormal Pap test	Pap test every 3 years (until age 65) No HPV DNA testing for women under 30 alone or in combination with the Pap test	Conventional or liquid-based Pap smear every 3 years No HPV DNA testing under age 30
Screening method and intervals for 30 to 65	Pap test and HPV test every 5 years is preferred Pap test alone can be done every 3 years More frequent testing should be done in women who have HIV, organ transplant, chemotherapy, chronic steroid use, exposure to DES, or history of precancer treatment	Pap test and HPV test every 5 years Women with a diagnosis of high-grade precancerous cervical lesion or cervical cancer, in utero exposure to DES, or immunocompromise should have more frequent screenings	Women in this age group who have negative test results, co-testing with the Pap test combined with HPV testing once every 5 years Pap test alone once every 3 years acceptable for women in this age group if HPV testing is not available Women with a history of cervical cancer or who are HIV-positive, immunocompromised, or were exposed to DES in utero should not follow routine cervical cancer screening guidelines. These women may need more frequent screening.
When to stop Pap test screening	Over age 65 with past regular screenings with normal results Continue to screen women with past history of cervical precancer	Over age 65 with adequate recent screenings with normal Pap tests, who are not at high risk for cervical cancer	Over age 65 with no history of CIN 2, CIN 3, adenocarcinoma in situ, or cervical cancer and who have also had either 3 consecutive negative Pap test results or 2 consecutive negative co-test results within the previous 10 years, with the most recent test performed within the past 5 years
Screening after hysterectomy with removal of cervix	Discontinue screening if no history of cervical cancer or precancer	Discontinue screening if no history of a high-grade precancerous lesion (CIN grade 2 or 3) or cervical cancer	Discontinue screening if no history of CIN 2 or CIN 3

CIN = cervical intraepithelial neoplasia; DES = diethylstilbestrol; HIV = human immunodeficiency virus; HPV = human papilloma virus.

PROBLEM

Given the recent changes in guidelines and the disparity between knowledge and incorporation of current evidence into practice, providers often experience difficulty integrating the guidelines into practice.[12] To incorporate new screening guidelines, health care practitioners must understand the current science regarding them.[6] It is important for practitioners to understand the evidence that supports changes in guidelines because this has a significant