The Future Is Now: Advances With Vaccines for the Prevention of Cervical Cancer and Other HPV-Related Diseases

A CME-certified Activity

Please refer to the CD-ROM, containing full video and slide presentations, included in this issue of Gynecologic Oncology. This activity can also be found on www.hpvcme.org.

Release Date: September 4, 2006
Expiration Date: September 4, 2007
Estimated Time to Complete Activity: 1.25 hours

Program Overview
Human papillomavirus (HPV) is the most prevalent sexually transmitted infection and is the causative agent for cervical cancer, the second most common cancer in women worldwide. Two high-risk HPV types (HPV 16/18) are responsible for an estimated 70% of cases of cervical cancer. These high-risk HPV types are also implicated in other cancers, including those of the anus, penis, vagina, and vulva. Two low-risk HPV types (HPV 6/11) have been detected in approximately 90% of genital warts, a substantial source of emotional distress and an economic burden. HPV 6 and 11 also cause an estimated 90% of recurrent respiratory papillomatosis, a rare but debilitating disease that can occur in both infants and adults, in which papillomas obstruct the airway. The highest rates of HPV infection have consistently been found in sexually active women younger than 25 years of age, and it is likely that more than half of sexually active adults have been infected with at least one HPV type. Thus, vaccination prior to the initiation of sexual activity will be the most effective strategy for reducing the public health burden of HPV infection. Prophylactic HPV vaccines have been formulated to protect against both high- and low-risk HPV types. Recently, the United States Food and Drug Administration approved a quadrivalent HPV vaccine, formulated to protect against both high- (16/18) and low- (6/11) risk HPV types, for girls and women from 9 to 26 years of age for the prevention of cervical cancer, cervical precancers, vulvar/vaginal precancers, low-grade cervical lesions, and genital warts. Results from two large phase 3 trials of this vaccine have demonstrated 100% effectiveness in preventing HPV 6/11/16/18-associated cervical and external genital diseases. The vaccine was safe and well-tolerated in these studies. Additionally, immunogenicity-bridging studies with the quadrivalent vaccine have demonstrated high antibody titers in children (age 9.15 years), suggesting that early vaccination is expected to yield the greatest public health benefit. A bivalent vaccine, which is formulated to only protect against high-risk HPV types (16/18), is in earlier stages of development. A phase 2 trial of this vaccine demonstrated 100% efficacy in preventing HPV 16/18-related cervical intraepithelial lesions. Phase 3 trials of this vaccine are currently underway.

This activity will review the epidemiology and natural history of HPV infection, recent clinical data with preventative HPV vaccines, and economic-modeling data supporting the cost-effectiveness of HPV vaccination.

Educational Objectives
After completing this activity, participants should be better able to:

- Determine the risks associated with HPV infection
- Review the role of HPV vaccines in preventing cervical cancer and other HPV-related diseases
- Identify the impact of HPV vaccination on overall cost and utilization of health care resources based on economic modeling

Target Audience
This activity is designed for cancer researchers, clinicians, behavioral scientists, cancer association leaders, and other professionals who wish to learn more about preventing cervical cancer and other HPV-related diseases.

Accreditation Statement
SciMed is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Credit Designation
SciMed designates this educational activity for a maximum of 1.25 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

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Instructions for Obtaining CME Credit
There are no fees for participating and receiving CME credit for this activity. In order to obtain CME credit for participating in this activity during the period September 4, 2006 through September 4, 2007, participants must 1) read the educational objectives and disclosure statements; 2) study the educational activity; 3) complete the posttest by recording the best answer to each question; 4) complete the evaluation form; and 5) submit the evaluation form with posttest online at www.hpvcme.org. Alternatively, participants can mail or fax the printable posttest and evaluation form with answer key. Complete instructions are found on the CD-ROM.

A statement of credit will be issued only upon receipt of a completed activity evaluation form and a completed posttest with a score of 80% or better.

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Other Instructions
The CD-ROM is cross-platform. On the Windows® platform, the program will auto-run from the CD. If the program does not auto-run, double-click on the file HPV_future. Macintosh® users will need to double-click on the file HPV_future.

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