

# How You Can Boost Teen Vaccine Compliance

BY DAMIAN McNAMARA  
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AMELIA ISLAND, FLA. — Recent approval of the first vaccine to prevent human papillomavirus infection underlines the need for physicians to improve immunization of adolescents, Dr. Kenneth Alexander said at a meeting on pediatrics for the primary care physician that was sponsored by Nemours.

The good news is there are strategies that can optimize routine vaccination of teenagers for human papillomavirus (HPV), meningitis, and pertussis. Vaccine promotion, reminder calls, and mass mailings are among some “tried and true” tactics that office-based physicians can employ. Another idea is to enlist emergency physicians to immunize all adolescent patients. School-based vaccinations are another option, although somewhat controversial with human papillomavirus, said Dr. Alexander, a pediatric infectious disease specialist at the University of Chicago.

The American Academy of Pediatrics (AAP) is advocating a routine 11- to 12-year-old visit to foster immunization for meningitis, pertussis, and the first of three injections against HPV. Getting adolescents to return for the second and third HPV vaccinations will be a challenge, plus “no one is more needle-phobic than an 11-year-old,” Dr. Alexander said.

“In terms of importance, HPV is probably the most important vaccine to hit us since the measles vaccines,” he said. “We are very good at immunizing infants, and I give adult doctors about a C+ for adults. Immunizing teenagers is not something we are particularly good at.”

Endorse the HPV vaccine in your office from the front door to the exit, Dr. Alexander suggested. “This is something your whole office should be promoting. Remind your staff to ask the kid who comes in for another reason. Contraindications to immunization are very limited.”

Contacting the parents of every teenager in your practice is another effective approach. However, going through the charts is time consuming and can be very expensive, Dr. Alexander said.

Send a mass mailing to inform parents that a new vaccine is available and how insurance companies are providing reimbursement. Also, schedule all three visits for the HPV vaccine regimen up front, Dr. Alexander said, and follow up with telephone reminders. “This could also be done with e-mail—a smart way to go.”

Cook County Hospital in Chicago uses its emergency department to immunize adults, Dr. Alexander said. This tactic could be extrapolated to pediatric patients. “If a kid shows up with a sprained ankle in the ER, can we treat it as an opportunity to immunize them? Darn tootin’.”

“Should we look at school-based vaccinations? It will be controversial with HPV vaccine, as you can imagine,” he said.

Some fear that a vaccine against HPV will increase sexual activity among teenagers. The vaccine does not obviate the need for a safe sex talk with a teenager, he said. In addition, “it is important to talk about abstinence—I have two teenage daughters. You have to trust and verify, and then immunize them anyway.”

Parents want to hear that the vaccine is effective, safe, and recommended by their child’s health care provider, Dr. Alexander said. “But they don’t want to hear about their child being sexually active. You can say that the vaccine is for preventing infection in women who are or ever will become sexually active.”

Future endeavors related to HPV prevention include longer-term follow-up studies of vaccines, approval of the second HPV vaccine expected later this year, studies in males, and forthcoming recommendations from the American Academy of Pediatrics, AAP, and American College of Obstetricians and Gynecologists.

Physicians will need to provide education about HPV because “parents will line up when you say meningitis, but they don’t know what HPV is,” Dr. Alexander said. ■



The AAP is advocating a routine 11- to 12-year-old visit to foster the new immunizations.

## U.S. Study: High-Risk HPV Prevalence Peaks in Adolescents

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JACKSONVILLE, FLA. — Universal immunization of preteenage girls with human papillomavirus vaccine would be ideal given the peak prevalence rates among adolescents in the United States, according to a presentation at an STD prevention conference sponsored by the Centers for Disease Control and Prevention.

“For the vaccine to have an optimal effect, it should be given before initiation of sexual behavior,” said Cristen Suhr, project coordinator of the HPV sentinel surveillance project sponsored by the CDC. [Since this meeting the CDC Advisory Committee on Immunization Practices recommended that the human papillomavirus vaccine should be given to all girls at age 11-12, and to all females aged 13-26 who have not been previously vaccinated. The vaccine can be given to girls as young as 9 years of age, at the provider’s discretion (PEDIATRIC NEWS, July 2006, p. 1).]

A high overall prevalence of high-risk human papillomavirus (HR-HPV) infection, 22%—regardless of race—is among findings of the surveillance project. HR-HPV is defined as HPV strains 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, and 68.

The prevalence of HR-HPV in 14- to 19-year-olds is 33%. The project is the first multisite surveillance to measure HR-HPV prevalence among U.S. women.

Researchers assessed 8,426 females aged 14-65 years. Participants had a routine Pap smear between January 2003 and December 2005 in one of six cities: Baltimore, Boston, Denver, Los Angeles, New Orleans, or Seattle. Medical records were later abstracted for results.

Although nearly 60% of participants fell into the two youngest age groups (14-

to 19-year-olds and 20- to 29-year-olds), “a strength of the ongoing HPV Sentinel Surveillance is inclusion of older age groups,” said Ms. Suhr. “Older women were more likely to be enrolled through a primary care clinic, whereas younger women were more likely to be enrolled through a family planning or STD clinic.”

“There was a steady decline in prevalence as age increased, from more than 30% in 14- to 19-year-olds down to under 10% in 50- to 65-year-olds,” Ms. Suhr said. This higher prevalence among younger females supports other studies that suggest HPV infection is acquired shortly after initiation of sexual activity. Ms. Suhr is affiliated with the CDC Division of STD Prevention and with Business Computer Applications Inc. in Atlanta.

HPV is the most common sexually transmitted infection, with a prevalence estimated at 20 million cases in the United States. Approximately 5.5 million incident infections occur each year. The HPV family is large, with more than 100 viral types, including more than 40 that cause genital infections. Most new infections are asymp-

tomatic and clear naturally, but those that persist can cause cervical lesions.

The quadrivalent vaccine (Gardasil, Merck & Co.) targets high-risk oncogenic virus types 16 and 18, implicated in 70% of cervical cancers, as well as low-risk, nononcogenic types 6 and 11, which cause 90% of genital warts. Licensure of an investigational HPV bivalent vaccine (Cervarix, GlaxoSmithKline) is expected as early as the end of 2006.

“In the U.S., it appears we will be able to reduce abnormal Pap smears with the vaccines,” Dr. Diane M. Harper said. “We know the vaccines are safe [and] immunogenic and can prevent HPV infections—incident and persistent—and prevent genital warts.” Dr. Harper is director of the Gynecologic Cancer Prevention Research Group at the Norris Cotton Cancer Center in Lebanon, N.H.

“Surveys indicate a high level of acceptability of this vaccine among adolescents, young adults, parents, and providers. But there are also concerns about increases in risky behavior with this vaccine,” Dr. Judith N. Wasserheit, professor of allergy and infectious diseases, University of Washington, Seattle, said in another presentation at the meeting. The median age of first coitus in the United States is 16-17 years, she reported. One-third of adolescents initiate coitus by ninth grade, and 10% of ninth graders report a history of more than four partners.

Another area of controversy is school immunization requirements. These requirements are critical to ensuring coverage for young people, especially for higher-risk youth who may have limited access to health care, Dr. Wasserheit said. “Some argue that HPV is not transmitted in schools, so why should it be required? But this is an access point. We may not get to school requirement in the first round with this vaccine, but it’s important.”

Potential limitations of the study include its clinic-based population and use of noncentralized laboratories for testing of cervical fluid samples. ■

