HPV/Cervical Cancer Resource Guide
for patients and providers
Oregon HPV Provider Resource Kit: Table of Contents

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- Oregon CD Summary 2006
- CDC Q&A Concerning the Safety and Efficacy of Gardasil®
- CDC EPVPD Chapter on HPV
- Vaccine Information Statements (English, Spanish)

Special HPV Articles:
- Vaccinating Girls for HPV by Koutsky and Golden.
- Barriers to Infectious Disease Care among Lesbians by Jeanne M. Marrazzo.

Cervical Cancer Guidelines Summary-Pap & HPV Testing
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Provider Information and Resources
Human Papilloma Virus (HPV) Vaccine
Frequently Asked Questions

1. What is HPV?
   HPV forms a diverse group of viruses that consist of over 100 different serotypes, not all of which are sexually transmitted. Approximately 60% of strains are cutaneous and relatively harmless, causing most common skin warts. The remaining strains are mucosal and can be divided into high and low risk groups. The four types of HPV infection that GARDASIL® protects against (6, 11, 16, and 18) are very common, and are spread through all types of sexual contact with an infected partner. While most HPV infections resolve without treatment within one year, some go on to cause genital warts, precancerous cervical changes that cause abnormal Pap smears, and cervical cancer. Types 16 and 18 are responsible for 70% of cervical cancers and most abnormal Pap smears worldwide, while strains 6 and 11 are responsible for 90% of genital warts as well as 9% to 12% of low-grade abnormal Pap smears. HPV infections can be asymptomatic or sub-clinical in their manifestation, which means that most people are unaware of their infection and are often under-diagnosed.

2. What HPV vaccines are available?
   Currently, there is only one vaccine licensed by the FDA to protect against HPV infection. GARDASIL®, manufactured by Merck, is a safe non-infectious recombinant, quadrivalent vaccine effective in preventing

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1 HPV can be spread through sexual intercourse (vaginal and anal), genital-to-genital, hand-to-genital, and oral-to-genital contact. The infection can cause few or no symptoms, which means that most people don’t know if they are infected.
infections with Human Papillomavirus types 6, 11, 16, and 18. The vaccine course consists of three shots administered over a six-month period. Aside from brief soreness at the injection site, no serious side effects have been detected. Studies are currently underway to evaluate the efficacy of administering the vaccine to males. Based on the preliminary findings of these studies, Merck intends to seek licensure for males in the next several years.

According to clinical trials, GARDASIL® produces a stronger immune response in youths ages 10-15 than women ages 16-23 years, and while vaccination before onset of sexual activity is best, HPV vaccine can provide some protection for women who have already become sexually active. In clinical trials, women who were already infected with one or more types of HPV the vaccine provides protection from, were found to be protected from clinical disease caused by the remaining HPV vaccine types. Since GARDASIL® does not offer protection from 100 percent of cervical cancers, other cancer prevention measures, such as Pap smears, remain critically important.

A second HPV vaccine, CERVARIX®, is currently waiting for FDA approval. CERVARIX® is a bivalent vaccine that protects against HPV types 16 and 18. The vaccine is manufactured by GlaxoSmithKline, and FDA approval is expected in 2008.

Important facts to keep in mind about GARDASIL®:
- It will not prevent transmission of HIV or other sexually transmitted diseases.
- Clinical trials indicate that the vaccine is extremely effective in preventing infection and clinical disease caused by HPV types 6, 11, 16 and 18, but it will not prevent or treat infections with other types of HPV.
- It will not eliminate the need for regular Pap screening.

3. What are the ACIP recommendations for GARDASIL®?
The vaccine is licensed for all females 9 through 26 years of age. However, the federal Advisory Committee on Immunization Practices (ACIP) encourages providers to vaccinate females at the routine 11-12 year old pre-adolescent visit with their physician, and 13-26 year old females who have not been previously vaccinated. When possible, providers are encouraged to vaccinate females beginning at age 9. For more information about the ACIP recommendations and upcoming ACIP meetings, visit www.cdc.gov/nip/acip/.
4. What is the impact of HPV in Oregon?

Each year, up to 50,000 adult women in the State of Oregon have abnormal Pap smears related to HPV infection of the cervix. Oregon statistics from 2002 reveal that 126 women developed invasive cervical cancer and 45 of these women died of the disease. Nationally, approximately 11,150 women develop invasive cervical cancer and 3,670 die of the disease each year. While some cervical abnormalities lead to cervical cancer, most do not. Currently, abnormal Pap smears require additional medical evaluations and treatments at a national cost of $4,000,000,000 per year.

In order to prevent any unnecessary deaths from cervical cancer, early administration of HPV vaccine is recommended. The vaccine is most effective when given prior to the first sexual activity. In Oregon, 43% of all high school girls report having had sexual intercourse. Of those, nearly 1 in 7 had their first sexual intercourse by age 13. The Oregon State Public Health Division strongly encourages providers and families to have young women immunized as early as possible. The Society for Adolescent Medicine strongly supports linking vaccination to preventive health care visits during early, middle and late adolescence. These visits present an important opportunity for young women to be vaccinated against HPV and other vaccine-preventable diseases, as well as allowing time for providers to discuss healthy choices and risk reduction with their parents.

Recent data regarding HPV supports postponing sexual activity as means to reduce cervical cancer risk. For those already sexually active, condom use provides protection against HIV and other sexually transmitted diseases and may offer some protection against HPV infection, abnormal Pap smears and cervical cancer if used regularly. After becoming sexually active, all women—even those vaccinated against HPV—should continue to have routine Pap smears to screen for and treat precursors to cervical cancer.