Immunization Program
Vaccines for Children Program
Human Papillomavirus (HPV) Vaccine
December 2011

Updated Recommendations:

- December 23, 2011, the Advisory Committee on Immunization Practices (ACIP) changed the permissive recommendation for males to a routine vaccination at age 11 or 12 to prevent HPV infection and HPV-related disease.

Human Papillomavirus (HPV) Vaccine Recommendations

Food and Drug Administration (FDA)

- On October 16, 2009, the FDA approved Cervarix for use in females 10 through 25 years of age.
- On October 16, 2009, the FDA approved the use of Gardasil in males.
- In June 2006, the FDA approved, Gardasil for females 9 through 26 years of age, to prevent cervical cancer, precancerous genital lesions and genital warts due to HPV types 6, 11, 16 and 18.

ACIP - The ACIP recommended either brand of HPV vaccine for routine immunization in females 11 or 12 years of age. The vaccination series can be started in females as young as 9 years of age. The ACIP also recommends the vaccine for females 13 through 26 years of age who previously have not received the vaccine.

In December 2011, the ACIP recommended the use of quadrivalent human papillomavirus (HPV) (HPV4; Gardasil, Merck & Co, Inc.) vaccine for routine immunization in males 11 or 12 years of age. The vaccination series can be started in males as young as 9 years of age. ACIP also recommended vaccination with HPV4 for males 13 through 21 years of age who have not been vaccinated previously or who have not completed the 3-dose series; males 22 through 26 years of age may be vaccinated. For immunocompromised males (result of infection including HIV, disease, or medications), ACIP recommends routine vaccination with HPV4 as for all males, and routine vaccination through age 26 years for those who have not been vaccinated previously or who have not completed the 3-dose series.

VFC Resolution - The ACIP updated recommendations for the use of HPV vaccine for VFC-eligible females and males to include:

VFC Eligible Females and Males		
Gender and Age	**Bivalent HPV vaccine (Cervarix)**	**Quadrivalent HPV vaccine (Gardasil)**
Females 9 through 18 years	Eligible	Eligible
Males, 9 through 18 years	Not eligible	Eligible

Recommended Schedule for HPV Vaccine

The bivalent and quadrivalent HPV vaccines are each administered in a 3-dose schedule:

1st dose: Initial dose
2nd dose: 2 months after the first dose
3rd dose: 6 months after the first dose (12 weeks between dose 2 and 3, overall, there must be at least 24 weeks between doses 1 and 3)

HPV vaccine can be administered at the same visit when other age appropriate vaccines are provided, such as Tdap, Td and MCV4.

Syncope can occur after vaccination, most commonly among adolescents and young adults. To avoid serious injury related to a syncopal episode, vaccine providers should consider observing patients for 15 minutes after they are vaccinated.

Catch-up Vaccination

HPV vaccination can begin as early as 9 years of age for both vaccines and for both females and males. Routine vaccination for females and males is recommended at 11 or 12 years of age. Catch-up vaccination for females is recommended at 13-26 years of age. Catch up vaccination for males is recommended at 13-21 years of age.

Interrupted Vaccine Schedules

If the vaccine schedule is interrupted for either the quadrivalent or bivalent HPV vaccine, the vaccine series does not need to be restarted.

Accelerated Schedule (Minimum Intervals) for HPV Vaccine

Minimum Age 9 years
Dose 1 to 2 4 weeks
Dose 2 to 3 12 weeks
(Overall, there must be at least 24 weeks between doses 1 and 3.)

Recommended Dosage

Each dose of HPV vaccine is 0.5mL, administered intramuscularly. Refer to package insert.

Vaccine Storage and Handling

Store refrigerated at 2 to 8°C (35 to 46°F). Do not freeze. Protect from light. Refer to package insert.

Special Situations

Quadrivalent or bivalent HPV vaccine can be given to females who have an equivocal or abnormal Pap test, a positive Hybrid Capture II ® high risk test, or genital warts.

Vaccine recipients should be advised that data from clinical trials do not indicate the vaccine will have any therapeutic effect on existing Pap test abnormalities, HPV infection or genital warts. Vaccination of these females would provide protection against infection with vaccine HPV types not already acquired.

Immunocompromised persons

HPV vaccine is not a live vaccine and can be administered to persons who are immunocompromised as a result of disease or medication; however, the immune response to the vaccine might be less than that in persons who are immunocompetent.

Vaccination during pregnancy

HPV vaccines are not recommended for use during pregnancy. The vaccine has not been causally associated with adverse outcomes of pregnancy or adverse events to the developing fetus. However, data on vaccination in pregnancy are limited. Until further information is available, initiation of the vaccine series should be delayed until after completion of the pregnancy. If a woman is found to be pregnant after initiating the vaccination series, completion of the 3-dose regimen should be delayed until after completion of the pregnancy. If a vaccine dose has been administered during pregnancy, there is no indication for any intervention. A vaccine in pregnancy registry has been established; patients and health-care providers are encouraged to report any exposure to quadrivalent HPV vaccine during pregnancy by calling (800) 986-8999 (Merck) or 888-452-9622 (GSK).

Lactating women

Lactating women can receive HPV vaccine.

Precautions and Contraindications

Acute illness

HPV vaccines can be administered to persons with minor acute illnesses (e.g., diarrhea or mild upper respiratory track infections, with or without fever). Vaccination of persons with moderate or severe acute illnesses should be deferred until after the illness improves.

Immediate hypersensitivity or allergy to vaccine components

Bivalent and quadrivalent HPV vaccine is contraindicated for persons with a history of immediate hypersensitivity to any vaccine component. The prefilled syringes of bivalent HPV vaccine should not be used in persons with anaphylactic latex allergy because syringes have latex in the rubber stopper. Bivalent HPV vaccine single dose vials contain no latex.

Vaccine Licensure/VFC Implementation

The Advisory Committee on Immunization Practices (ACIP) is a federal advisory committee whose role is to provide advice and guidance regarding the most appropriate application of vaccines for effective vaccine preventable disease control. The Food and Drug Administration (FDA) is responsible for the licensure of vaccines. Upon FDA approval the ACIP convenes and makes decisions on vaccine recommendations A VFC resolution vote is required for the inclusion of new vaccines into the VFC Program or the modification of existing resolutions. The Centers for Disease Control and Prevention (CDC) then negotiates a contract for the purchase of vaccines. This contract is normally finalized within three months. VFC vaccine must be administered according to the guidelines outlined by the ACIP recommendations and VFC resolutions.

CDC allocates individual state VFC funding based upon eligible populations, anticipated vaccine uptake and negotiated federal contract amounts. CDC establishes monthly vaccine allocations for each vaccine. Additional 317 CDC discretionary funds are used to vaccinate underinsured individuals seen at Local Public Health Agencies (LPHAs) who are not eligible under VFC guidelines. Each state determines the vaccine implementation date based upon the above process which is generally four to six months following vaccine licensure.

School Requirements

The role of school laws is to assist in the removal of barriers to vaccine and to prevent the transmission of disease in school settings. HPV vaccine is not required for school enrollment.

IDPH/Immunization Program Recommendations

The IDPH, Immunization Program routinely follows and promotes the ACIP Recommended Immunization Schedule. The Immunization Program is implementing HPV vaccine in accordance with the ACIP recommendations and the VFC resolution.

Cervarix CPT Code 90650
Gardasil CPT Code 90649