



HPV Vaccines

Description

Two vaccines were developed in 2006 to prevent infection with human papillomavirus (HPV), a sexually transmitted infection that causes cervical cancer. Nearly half a million women develop cervical cancer every year, and more than a quarter-million women die from the disease. The vast majority of these women live in developing countries, where life-saving services to screen and treat signs of precancer are unavailable (e.g., using Pap smears).

Gardasil[®], the quadrivalent HPV vaccine, was designed to prevent infection with HPV types 6, 11, 16, and 18. Cervarix[™], the bivalent HPV vaccine, prevents types 16 and 18. HPV types 16 and 18 account for 70 percent of cervical cancer cases. HPV types 6 and 11 can cause genital warts and respiratory papillomatosis. Most people will contract HPV at some point in their lives, although relatively few will develop cervical cancer. Both vaccines are given in a series of three 0.5 mL intramuscular injections over six months. Gardasil[®] is administered on a 0-, 2-, and 6-month schedule, and Cervarix[™] on a 0-, 1-, and 6-month schedule.

Efficacy

In large, international clinical trials of adolescent and young adult females, both vaccines have been proven at least 90 percent efficacious when administered prior to onset of sexual activity. Young adolescent girls (aged 10–14) are the primary target group for HPV vaccination, and some countries are also targeting a secondary group for “catch-up” (often women aged 14–26). The potential benefit of vaccinating boys is still under investigation. There is evidence that duration of protection may be at least six years, although long-term efficacy is still being evaluated. For more information, visit:

www.rho.org/files/WHO_PATH_UNFPA_exca_key_points.pdf.

Current program/sector use

The vaccines are not yet widely available in the developing world, but research is underway to assess the coverage, feasibility, acceptability, and cost in low-resource settings. For more information, visit www.path.org/projects/cervical_cancer_vaccine.php.

Manufacturer

Gardasil[®] is manufactured by Merck (www.merck.com). Cervarix[™] is manufactured by GlaxoSmithKline (www.gsk.com).

Registration status

As of May 2008, Gardasil[®] is licensed in 102 countries, and Cervarix[™] is licensed in 66 countries (although licensed vaccines may not yet be marketed in a given country).

Public-sector price agreements

The GAVI Alliance, an immunization coalition of the world's top global health agencies, governments, and private partners, offers subsidized vaccines to over 70 countries of the developing world. Many low-income countries will rely on support from the GAVI Alliance to procure subsidized HPV vaccine. GAVI announced in June 2008 that it is considering future support of the vaccine, but the date of that decision is not currently known.

This publication forms part of a series of technical briefs, written by members of the Caucus on New and Underused Reproductive Health Technologies, a thematic group established under the auspices of the Reproductive Health Supplies Coalition. The Caucus' aim is to broaden the discussion within the Coalition of reproductive health technologies that are not well integrated into the public or commercial sectors. Responsibility for the selection and contents of the technical briefs rests solely with the Caucus and does not imply endorsement by the Coalition or its wider membership. For additional information, please contact secretariat@rhsupplies.org.