

# Human Papillomavirus (HPV) Vaccine Information for Healthcare Providers

## Overview

**Human papillomavirus (HPV) vaccine, Gardasil™ was licensed for use in Canada on July 11, 2006 by Health Canada.** The vaccine has been approved for use in Canada for females 9 to 26 years of age. Gardasil™ is a quadrivalent vaccine that will protect against infection with two high-risk (linked to cervical cancer) types of HPV, 16 and 18, and two low risk (low risk for causing cancer) types, 6 and 11. The vaccine contains non-infectious virus-like protein particles that are identical in shape and size to the natural virus.

HPV types 16 and 18 cause approximately 70% of cervical cancers. HPV types 6 and 11 cause approximately 90% of ano-genital warts.

On February 15, 2007 The National Advisory Committee on Immunization (NACI) released a statement on human papillomavirus vaccine, providing recommendations on its use in Canada.

### NACI Recommendations for HPV vaccine, Gardasil™

- 1) Females between 9-13 years of age. Gardasil™ is recommended for females between the ages of 9 and 13 years, as this is before the onset of sexual intercourse for most females in Canada, and the efficacy would be greatest.
- 2) Females between 14 and 26 years would benefit from Gardasil™, even if they are already sexually active, as they may not have HPV infection and are very unlikely to have been infected with all four HPV types in this vaccine. Women who are already sexually active should be aware of the possibility that they are already infected, but there is no readily available screening method to determine this.
- 3) Females between the ages of 14 and 26 years who have had previous pap abnormalities, including cervical cancer, or have had genital warts or known HPV infection would still benefit from Gardasil. These women may not have had infection with the HPV types included in the vaccine and are very unlikely to be infected with all four types contained in the vaccine. They should be advised that there are no data to suggest the vaccine will have any therapeutic effect on existing cervical lesions.

## HPV Vaccine Efficacy

- Studies have demonstrated that the vaccine is almost 100% effective in preventing disease caused by the four HPV types covered by the vaccine, including pre-cancers of the cervix, vulva and vagina, and genital warts.
- The vaccine is less effective in women who have already been exposed to one of the HPV types covered by the vaccine.
- The vaccine does not treat existing HPV infections, genital warts, pre-cancers, or cancers.
- Efficacy has not been demonstrated against disease due to HPV types not contained in the vaccine.

## Other considerations:

- Males. The efficacy for males is not yet known. Studies are underway to evaluate the health benefits in males and indirect benefits for women if men are immunized. The vaccine is not recommended for males at this time.
- Cervical cancer screening. Women who have been vaccinated will still be susceptible to other HPV types that cause cervical cancer and ano-genital warts. As well, women who are already sexually active before receiving the vaccine may have already been infected with HPV 16 or 18. Therefore it is important that women should continue to take part in the currently recommended cervical cancer screening program.

## Dosage and Schedule

Gardasil™ is given intramuscularly in 3 separate 0.5 ml doses using a 0, 2 and 6 month schedule. The minimum interval between the first and second dose is 1 month. The minimum interval between the second and third dose is 12 weeks.

## Vaccine Availability

At this time, HPV vaccine is not a publicly funded vaccine in Manitoba. As with all newly licensed vaccines, there is a period of time between when national recommendations are made and its use and inclusion in routine provincial immunization schedules. This includes analysis and assessment of HPV infections and disease in Manitoba, program benefits, ongoing monitoring and evaluation of the program, and logistics of implementing a new vaccine program such as eligibility, costs, mechanisms of delivery, and vaccine procurement.

Until the vaccine becomes part of the publicly funded immunization program, it can be obtained through a physician's prescription for purchase at a local pharmacy. The vaccine costs about \$500 in Canada, for all three doses.

Health care providers are encouraged to review the availability and benefits of HPV vaccine with females in the recommended age groups.

## Further Information

A question and answer sheet on HPV vaccine has been developed by the Public Health Agency of Canada: [http://www.phac-aspc.gc.ca/std-mts/pdf/hpv-vph-vaccine\\_e.pdf](http://www.phac-aspc.gc.ca/std-mts/pdf/hpv-vph-vaccine_e.pdf)

The NACI statement on Human Papillomavirus vaccine is available at [http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/07vol33/acs-02/index\\_e.html](http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/07vol33/acs-02/index_e.html)

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## References:

1. Canada Communicable Disease Report, National Advisory Committee on Immunization, Statement on Human Papillomavirus Vaccine, February 15, 2007
2. Merck Frosst Canada Ltd. Product Monograph for Gardasil™, October 26, 2006