



## College Statement

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Title	<b>Guidelines for HPV vaccine</b>
Statement No.	<b>C-Gyn 18</b>
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Cervical cancer is one of the leading causes of cancer morbidity and mortality in women throughout the world. Persistent infection with oncogenic Human Papilloma Virus (HPV) is associated with the development of cervical cancer. Infection with oncogenic HPV types is also implicated in the development of other cancers, including neoplasms of the vulva, vagina, anus and penis. Of the oncogenic HPVs, types 16 and 18 account for some 70% of cervical cancers. Non-oncogenic HPV types cause genital warts. HPV infection is common with an estimated 70% of sexually active women becoming infected.[1-3] Vaccination to prevent infection with oncogenic HPV types has the potential to reduce the incidence of precursor lesions and cervical cancer.[4]

Two prophylactic HPV vaccines are currently available in Australia and New Zealand.

- Gardasil<sup>®</sup> is approved for use in females aged 9 to 26 years to be given in a three dose schedule at 0, 2 and 6 months. It provides 90–100% protection against persistent infection and cervical/genital disease due to HPV types 16 and 18 and HPV types 6 and 11, the latter two which cause 90% of genital warts. Gardasil<sup>®</sup> is also approved for use in males aged 9 to 15 years.[1, 5]
- Cervarix<sup>®</sup> has been approved for use to provide protection against HPV types 16 and 18.[6]

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*“CERVARIX is indicated in females from 10 to 45 years of age for the prevention of cervical cancer by protecting against incident and persistent infections, cytological abnormalities including atypical squamous cells of uncertain significance (ASC-US) and cervical intraepithelial neoplasia (CIN), CIN 1 and precancerous lesions (CIN 2 and CIN 3) caused by human papillomavirus types 16 and 18. Immunogenicity studies have been conducted in females aged 10 to 14 years and 26 to 45 years to link efficacy in females aged 15 to 25 years to other populations.” (See <http://www.tga.gov.au/docs/html/adecc/adecc0251.htm>).*

## **Recommendations**

### **Vaccination of Girls, Adolescents and Young Women**

- The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) recommends the vaccination of females aged 9–26 years against HPV, with the initial vaccination target of females aged 11 or 12 years.

### **Vaccination of Sexually Active Women**

- Sexually active women can receive the HPV vaccine.
- Women with a history of previous HPV infection will most likely benefit from protection against disease caused by the other HPV vaccine genotypes with which they have not been infected.
- The need for continued cervical cytology screening according to recommended national policies should be emphasised.

These patients should be counselled that the vaccine may be less effective in women who have been exposed to HPV before vaccination than in women with no prior HPV exposure at the time of vaccination.[5]

### **Cervical Cytology Screening**

- Current cervical cytology screening recommendations remain unchanged and should be followed regardless of vaccination status.[7]
- The vaccine is a preventive tool and is not a substitute for cancer screening. Both vaccines protect against acquisition of HPV genotypes that account for approximately 70% of HPV-related cervical cancer worldwide and screening should be continued to cover the remaining oncogenic types. [1-3]

### **Human Papillomavirus Testing**

- There is no practical or reliable method for screening for HPV susceptibility prior to consideration of vaccination.
- Testing for HPV is currently not recommended before vaccination.
- Testing for HPV DNA is not usually type specific and would not identify past HPV infections, only current HPV infections.
- Serologic assays for HPV are unreliable and currently not commercially available. Requiring any type of screening test would raise the cost of vaccination programs dramatically and reduce the cost-effectiveness of vaccination.
- There is currently no public health benefit in recommending screening for HPV prior to HPV vaccination.

### **Vaccination of Women with Previous Cervical Intraepithelial Neoplasia**

- Women with previous abnormal cervical cytology or genital warts also can receive the HPV vaccine. There is no practical method for determining the specific HPV type associated with these lesions.
- There is concern that provision of the vaccination to women with previous cervical intraepithelial neoplasia may create a false sense of protection, potentially deterring patients from continuing their regular screening and management.
- The vaccine can be given to patients with previous cervical intraepithelial neoplasia, but practitioners need to emphasize that the benefits will be limited to future HPV exposure. Cervical cytology screening and corresponding management based on RANZCOG [7]

recommendations must continue.

### **Vaccination is Not Treatment**

- The HPV vaccine is not therapeutic and is not intended to treat patients with cervical cytologic abnormalities or genital warts.
- Patients with these conditions should undergo the appropriate evaluation and treatment. It is important to note that many early cytologic abnormalities can be detected and managed conservatively given the significant rate of regression. This is especially true in adolescents and young women.

### **Vaccination of Pregnant and Lactating Women**

- Gardasil<sup>®</sup> and Cervarix<sup>®</sup> have been classified by the TGA as pregnancy category B2. The vaccine is not recommended for use in pregnancy. There is no evidence to suggest that administration of Gardasil<sup>®</sup> or Cervarix<sup>®</sup> adversely affects fertility, pregnancy or infant outcomes.[5, 6]

### **Vaccination of Immunosuppressed Patients**

- The presence of immunosuppression, either medically or in patients with HIV infection, is not a contraindication for Gardasil<sup>®</sup> or Cervarix<sup>®</sup>. However, the immune response may be smaller in the immunocompromised patient than in immunocompetent patients.[5, 6]

### **Vaccination of Women Older Than 26 Years and Males**

- Phase three clinical trials regarding the benefits of vaccination of women older than 26 years and males older than 15 years are currently under way.
- Gardasil<sup>®</sup> is approved for use in males aged 9 to 15 years. This approval is based on the demonstration of safety and HPV antibody responses in males. However, there are no data demonstrating that the vaccine is effective in preventing HPV infection, genital warts or other genital lesions in males.
- Available data indicate that the vaccine is safe in this population but are insufficient to make recommendations regarding efficacy in these populations.

### **References**

1. Villa, L.L., et al., *Prophylactic quadrivalent human papillomavirus (types 6, 11, 16, and 18) L1 virus-like particle vaccine in young women: a randomised double-blind placebo-controlled multicentre phase II efficacy trial*. *Lancet Oncol*, 2005. 6(5): p. 271-8.
2. Stevens, M.P., et al., *Human papillomavirus genotype prevalence in cervical biopsies from women diagnosed with cervical intraepithelial neoplasia or cervical cancer in Melbourne*. *International Journal of Gynecological Cancer*, 2006. 16(3): p. 1017-1024.
3. Brestovac, B., et al., *Human papillomavirus genotypes and their association with cervical neoplasia in a cohort of Western Australian women*. *Journal of Medical Virology*, 2005. 76(1): p. 106-110.
4. Frazer, I., *Prevention of cervical cancer through papillomavirus vaccination*. *Nature Reviews Immunol*, 2004. 4: p. 46-54.
5. *Gardasil Product Information*, CSL Pharmaceuticals.  
<http://www.csl.com.au/Gardasil.asp>
6. *Ceravix Product Information*, GlaxoSmithKline.  
[http://www.gsk.com.au/products\\_vaccines\\_detail.aspx?view=122](http://www.gsk.com.au/products_vaccines_detail.aspx?view=122)

7. RANZCOG, *College Statement C-Gyn 5: Screening for the prevention of cervical cancer.*  
July 2006.

## **Disclaimer**

This College Statement is intended to provide general advice to Practitioners. The statement should never be relied on as a substitute for proper assessment with respect to the particular circumstances of each case and the needs of each patient.

The statement has been prepared having regard to general circumstances. It is the responsibility of each Practitioner to have regard to the particular circumstances of each case, and the application of this statement in each case. In particular, clinical management must always be responsive to the needs of the individual patient and the particular circumstances of each case.

This College statement has been prepared having regard to the information available at the time of its preparation, and each Practitioner must have regard to relevant information, research or material which may have been published or become available subsequently.

Whilst the College endeavours to ensure that College statements are accurate and current at the time of their preparation, it takes no responsibility for matters arising from changed circumstances or information or material that may have become available after the date of the statements.