

Gardasil vaccine: Update

Human Papillomavirus (HPV) vaccines were discussed in BPJ 12 (April 2008), but since then a number of changes have occurred:

- Gardasil has been added to the National Immunisation Schedule.
- Gardasil is currently funded for women born on or after January 1st, 1990.
- From January 2009, Gardasil will be funded for females aged between 12 and 18 years old.
- As part of a catch up programme, 17 and 18 year old women have been eligible for vaccination from 1st September 2008.
- An advertising campaign is planned from the Ministry of Health from January 2009.

The vaccine course comprises of three doses, given over six months and can be delivered by primary care practitioners or through school-based programmes (these will be phased in over 2009 and 2010). All three doses of vaccine need to be given for adequate seroconversion.¹

CSL Biotherapies (NZ) Ltd has created a reminder programme using email and text messages. Young women receiving the vaccine can fill out a form to consent to receive reminders for when her next dose is due.

HPV vaccine uptake

At present in New Zealand approximately 160 women are diagnosed with cervical cancer each year and 60 women die from it. Māori women are almost twice as likely to get cervical cancer and almost three times as likely to die of it compared to non-Māori.

Māori currently have the lowest immunisation rate of any ethnic group in New Zealand. School based vaccination programmes are associated with higher coverage rates and reduced inequalities compared to vaccine delivery in other settings.²

Soon after Gardasil first became available for females aged 17 and 18 years in September 2008, there were some reports that the uptake of the vaccine was low, however more recent reports suggest that uptake levels are promising.

Potential issues surrounding Gardasil use

- Young women who are already sexually active may be unsure if it is still worthwhile having the vaccine or may be worried that they will be asked about their sexual activity.

- Some parents may be concerned that the vaccine could encourage their daughters to engage in sexual activity at a younger age.
- Young women born before January 1st 1990 or males may enquire about whether they can be vaccinated with Gardasil.
- Some parents may be concerned about the safety of Gardasil as it is a new vaccine.
- People may ask about the effectiveness of Gardasil and how long protection lasts.
- Women may ask if they still need cervical smears.

Sexual activity

The vaccine is most effective when administered before the onset of sexual activity but benefit may still be derived after this as the woman may not have been exposed to the HPV types that the vaccine protects against (subtypes 6, 11, 16 & 18).

Young women will not be asked if they are sexually active before receiving the vaccine.

Research in other countries has not found that the vaccine is linked to sexual activity occurring at a younger age.¹

Non-funded vaccine use

Women born before January 1st 1990 and males may still receive the vaccine but it is not funded. It would normally cost approximately \$450 for the three doses, in addition to any consultation fee that may apply.

Safety concerns

Clinical trials have shown that Gardasil is not associated with serious adverse events. Since the vaccine has been licensed the most common reports to the Vaccine Adverse Events System (VAERS) have been local injection site reactions and some cases of fainting after vaccination. As with all vaccines a 15–20 minute post-vaccination waiting period is advisable.³


Vaccine effectiveness

Cervical cancer develops over ten or more years and HPV subtypes 16 and 18 are implicated in approximately 70% of cervical cancers. Gardasil vaccine targets these HPV subtypes and current evidence from clinical trials suggests that it provides immunity for at least five years with no evidence of reducing effectiveness. Continued monitoring of longevity of immunity is underway. If boosters are needed in the future this would not change any recommendation for initial vaccination.³

Gardasil is expected to reduce future cervical cancer rates by up to 70% if young women are vaccinated before their first sexual intercourse. It is estimated that Gardasil has the potential to prevent cervical cancer in the future for approximately two women per week in New Zealand saving 30 lives per year.¹ In the shorter term, it is expected to reduce the incidence of genital wart infection (HPV subtypes 6 and 11 are implicated in 90% of genital warts) and abnormal cervical changes.

Cervical smears are still required

Gardasil will not replace the cervical cancer screening programme as approximately 30% of cervical cancers are caused by HPV subtypes not present in the vaccine. In addition, women with exposure to HPV prior to vaccination still need to be monitored.

 see BPJ 12 (April 2008) for more information about HPV vaccines.

References:

1. Ministry of Health. The HPV (Human Papillomavirus) immunisation programme: National implementation strategic overview. June 2008. Available from www.moh.govt.nz (accessed November 2008)
2. Cormack D, Purdie G, Robson B. Chapter 6: Cancer. In: Robson B, Harris R (eds). Haurira: Maori standards of Health IV. A study of the years 2000-2005. Wellington: Te Ropu Rangahau Haurora a Eru Pomare. 2007
3. Centers for Disease Control and Prevention. HPV Vaccine Safety. Available from www.cdc.gov (accessed November 2008)