Immunisation Advisory Centre

VERSION 3

Quick answers to frequent HPV questions

Available vaccines and diseases protected against

Gardasil 9 (HPV9) is the funded brand of HPV vaccine and protects against nine strains of Human papillomaviruses (HPVs) (6,11,16,18, 31, 33, 45, 52, 58).

HPVs are common viruses, some of which can cause genital warts, precancerous cell changes and cancer in the throat, cervix, anus, vagina, vulva or penis. There are more than 150 types of HPV, at least 14 are linked to cancer.

Without immunisation, around 80% of adults will have an HPV infection at some time in their life. HPVs are common and readily transmitted. The vaccine is very effective for an individual and there is evidence for herd immunity.

With high coverage, genital warts, precancers and cancers are reduced. Unfortunately, in New Zealand HPV coverage lags behind that of other countries such as Australia and the UK, and we are well below the 90% target set by WHO.

Administration

Concurrent vaccination: HPV can be given at the same time as, or within any time interval of any other vaccine, including all National Immunisation Schedule vaccines. Use separate syringes and injection sites.

Due to lack of data, the Jynneos datasheet currently says to avoid co-administration with other vaccines.

Based on first principles, there is minimal risk of interference between Jynneos and other vaccines.

Since this cohort are likely to benefit from administration of HPV, it is recommended that vaccine history is checked and where possible co-administration of HPV offered, supported by a standing order or prescription and written informed consent.

Method: Administer intramuscularly into the deltoid.

Who is eligible to receive funded HPV?

Males and females aged 9 years to under 27 years

- HPV immunisation course is funded from 9 years in primary healthcare
- The school-based Immunisation Programme delivers the vaccine to school students in year 8
- Individuals not eligible for publicly funded healthcare, e.g. on a student visa, must be aged under 18 years to start funded vaccine doses

Special groups: Males and females aged 9 years to under 27 years

- Who are HIV-positive, or who have received a solid organ or stem cell transplantation
  - A course of three HPV vaccine doses for all ages including those aged 9–14 years inclusively
- Who are post-chemotherapy
  - A maximum of four doses for people aged 9–26 years inclusively post-chemotherapy

Catch-up:

- Eligible for publicly funded healthcare: if at least one dose was given before 27 years of age, there is no upper age limit to receive funded catch-up doses
- Not eligible for publicly funded healthcare, e.g. on a student visa: if at least one dose was given before 18 years of age, there is no upper age limit to receive funded catch-up doses.

When not to administer HPV

Contraindications: Do not give HPV vaccine to anyone with a severe allergy (anaphylaxis) to a previous dose of this vaccine or a component of the vaccine. HPV vaccines contain HPV proteins produced by genetically engineered yeast cells. They should not, therefore, be given to people with a history of an immediate hypersensitivity to yeast.

Pregnancy: HPV vaccines are not recommended for pregnant women; however, enquiring about the possibility of pregnancy is not necessary before vaccination. Data to date shows no adverse effects of HPV vaccines on pregnancy outcomes.

Postponement: Delay vaccination if the person has a fever over 38C. Minor infections are not a reason to delay.

Schedule and administration

HPV is offered as a two- or three-dose course, with the number and timing of doses dependent on the age of the individual when they commenced the course. The vaccine is more immunogenic in younger populations, and a two-dose vaccination course has been found to be non-inferior to a three-dose course in females/males under 15 years.

Immunisation should preferably be completed before the onset of sexual activity. The optimal time for HPV administration is at age 9–13 years, as the immunogenicity is more effective when given younger, and as most males and females in this age group would be naïve to all HPV types.

In 2022, WHO recommended "an off-label option, a single-dose schedule can be used in girls and boys aged 9–20 years" based on "comparable efficacy and duration of protection as a 2-dose schedule". WHO noted a "potential risk of a lower level of protection if efficacy wanes over time, although there is no current evidence of this."
A number of countries now have a one-dose schedule for those without immunocompromise.

How many doses should people receive?

Males and females aged 9 years to 14 years inclusively:
Not HIV-positive, or post-solid organ or stem cell transplantation

- Two HPV vaccine doses at 0 and 6 months
- The minimum interval is 5 months between the two doses
- There is no maximum interval between doses. It is not necessary to repeat the prior dose regardless of how long ago the dose was given
- If two doses are given at least 5 months apart, no further doses are required even if the second dose is given when the individual is aged 15 years or older
- If doses one and two are given less than 5 months apart, a third HPV vaccine dose is required.

HIV-positive, or post-solid organ or stem cell transplantation aged 9-26 years

- Three HPV vaccine doses
- The standard schedule is 0, 2, 6 months, i.e. an interval of 2 months between doses one and two, and an interval of 4 months between doses two and three
- A shortened schedule can be followed with specialist advice. Three doses can be given over a 5-month period, with a minimum interval of 4 weeks between any two doses
- There is no maximum interval between doses. If the schedule has been interrupted, it is not necessary to repeat prior doses regardless of how long ago the doses were given.

Males and females aged 15–26 years inclusively:

- Three HPV vaccine doses
- The standard schedule is 0, 2, 6 months, i.e. an interval of 2 months between doses one and two, and an interval of 4 months between doses two and three
- If a shortened schedule is required, with an interval of 1 month between doses one and two and at least 3 months between doses two and three.

Post-chemotherapy patients aged 9-26 years:

- An additional dose at least 1 month after the last dose of chemotherapy.

Call 0800 IMMUNE (0800 466 863) for clinical advice

See following page for FAQs

HPV frequently asked questions

Catch-up vaccination

Do we restart the course of HPV vaccines when doses have been delayed?

No. It is not necessary to repeat doses/restart course of Gardasil 9 (HPV9) after a delay in administration, even if the course of vaccines exceeds 12 months. Resume vaccine schedule without repeating prior doses using available HPV vaccine.

I am catching up a patient who is over 15 but started their HPV course when they were under 15 – how many doses do they require?

The applicable dosing schedule is based on when the individual started the programme i.e. the age at which they had their first dose 1. For example, a 17-year-old who had dose 1 at aged 13 would be on a two-dose schedule and therefore will require one further dose to catch up and complete the programme.

HPV4 and HPV9

Gardasil (HPV4) was the HPV vaccine available in New Zealand from 2008-2017, before its replacement with Gardasil 9 (HPV9). Both vaccines protect against HPV 6 and 11, which cause approximately 90% of genital warts and cause respiratory papillomatosis (warty growths on vocal cords and throat). HPV4 also included protection against the two highest cancer-risk HPV-types (16, 18) that cause around 70% of cervical and 85% of other HPV-related cancers.
Gardasil 9 provides protection against the seven highest cancer-risk HPV types (16, 18, plus 31, 33, 45, 52, 58) that cause around 90% of cervical cancers.

What if a course started with HPV4? Can it be completed with HPV9?

Individuals who began a course with HPV4 can complete their vaccine course with Gardasil 9 (HPV9). The vaccines are interchangeable. There are no safety concerns with changing vaccine brands during a course of vaccines.

Is revaccination with HPV9 required if HPV4 course has been completed?

Individuals who were fully vaccinated with HPV4 do not require further vaccination with Gardasil 9 (HPV9) and are not funded for further vaccination with HPV9. Any further protection is likely to be limited, particularly if they have already been exposed through sexual contact. Most HPV-associated cancers result from infection with HPV types 16 and 18, which are covered by both vaccines. If requested for those aged at least 16 years who would like additional coverage for the HPV types provided by HPV9, give two doses of HPV9 (unfunded) 6 months apart. Non-funded Gardasil 9 doses need to be purchased from Healthcare Logistics and vaccinators must have a prescription or standing order to administer these vaccines.

Non-funded requests in older adults

Is there value in offering HPV vaccination to older groups – over 27 years of age?

Gardasil 9 is approved for use in males and females from 9-45 years. The best time for HPV immunisation is prior to any sexual activity and the vaccine produces a better immune response in pre-teens than older teens. The decision to vaccinate older age groups should follow an assessment based on their likely previous HPV exposure and future risk.
Gardasil 9 would be recommended, but not funded for:

- males and females aged 27 years or older who have had little exposure to HPV in the past and now likely to be exposed
- men who have sex with men
- those who are HIV-positive.

In women, immunisation with Gardasil 9 after surgery to remove cervical cells with high-grade abnormalities has been shown to reduce the risk of recurrence of similar high-grade abnormalities.

Benefit of offering Gardasil to those aged 45 years and over?

There is little safety data available regarding use of Gardasil 9 in people over 45 years of age, however this is occasionally recommended by specialists and there are unlikely to be any contraindications or safety concerns. As this is an off-license use of the vaccine, it would need to be supported by a prescription along with good informed consent.
Note: Unfunded doses should be purchased from Healthcare Logistics and authorised vaccinators need a prescription or standing order to administer them. Pharmacist vaccinators can administer without prescription between ages 9-45 years.

Call 0800 IMMUNE (0800 466 863) for clinical advice