THE NEW ZEALAND HPV PROJECT

Genital, Anal and Throat HPV Infection - Key Information Summary

Taken from: **Guidelines for the Management of Genital, Anal and Throat HPV Infection in New Zealand** 8th Edition - 2015

www.hpv.org.nz

What's new – Changes since the 2013 Guidelines

Imiquimod 2%

Special Authority is no longer required from February 1, 2015.

Anal cancer

The incidence of anal cancer is increasing and the burden of disease is highest in men who have sex with men (MSM) and HIV-positive MSM.

Oropharyngeal cancer

The incidence of HPV-related oropharyngeal cancers is increasing in the general population and particularly in men.

9-valent vaccine

A 9-valent vaccine (Merck) received FDA approval in the US in December 2014. **This adds protection against five additional hrHPV Types. The 9-valent vaccine is expected to be registered and available in NZ. The timeline for this will be clarified once the registration process commences later this year.**

New patient information leaflets

Two new patient information leaflets are available from the HPV website –
HPV and Throat Cancer (**www.hpv.org.nz/images/pdf/hpv-and-throat-cancer-2015.pdf**)
and HPV and Men (**www.hpv.org.nz/images/pdf/hpv-and-men-2015.pdf**).

Two-dose vaccine

The WHO states that vaccination can be given in two doses, 6 months apart, to girls aged 9–13 years, as an alternative to the three-dose schedule. The three-dose schedule is required for girls older than 13 years. The current New Zealand immunisation schedule is for three doses.

Human Papillomavirus (HPV)

HPV is a common sexually transmitted infection of the genital and oropharyngeal tracts, sub-categorised as:

- low-risk HPV (lrHPV) – HPV 6 and HPV 11 cause approximately 90% of genital warts and are NOT associated with precancer or cancer;
- high-risk HPV (hrHPV) – most commonly HPV 16 and HPV 18, associated with precancer and cancer of the lower genital and oropharyngeal tracts, presents as latent and/or subclinical (not visible to the naked eye).

The majority of hrHPV infections do not progress to cancer.

Epidemiology

- Estimated prevalence of 20% in 20 year olds.
- Most anogenital HPV infections are subclinical.
- On average, 80% of adults will have HPV infection at some point during their lives.
- Because of variable latency, HPV infection may develop during a long-term relationship and does not necessarily imply other sexual contacts.
- Reactivation of infection is more likely than acquisition of a new, recent infection in older women.

Transmission

- Sexually transmitted by genital-to-genital and genital-to-oral contact.
- If one member of a stable partnership has anogenital HPV infection, the other is likely to be either infected or immune to that infection.
- Anogenital HPV infection can be transmitted to the mouth through oral sex.
- Autoinoculation may occur rarely.
- There is no evidence to support transmission via fomites (inanimate objects).

lrHPV Genital Warts

Clinical presentation and diagnosis

- Ninety percent of anogenital warts are caused by nononcogenic HPV 6 or 11.
- Warts rarely progress to cancer.
- The differential diagnosis includes normal anatomical variants such as vestibular papillomatosis and pearly penile papules, dermatoses, and intraepithelial neoplasia.
- Diagnosis of anogenital warts is usually made by visual inspection. Some require examination with magnification (e.g. colposcope). Refer if the diagnosis is uncertain.
- The use of HPV DNA testing for anogenital wart diagnosis is not recommended, because test results do not confirm the diagnosis and do not assist with genital warts management.
- The application of 3–5% acetic acid is not a specific test for HPV infection and its use is not recommended.
- Perianal lesions are common in both sexes, including heterosexual men. They are not exclusively associated with anal sex, due to the regional spread of HPV infection. They are, however, seen more commonly in MSM.
- Women with genital warts, history of genital warts, or who are asymptomatic partners of someone with genital warts should follow routine cervical screening and do not require additional screening.

Treatment

- The primary goal of treatment is to eliminate warts that cause physical or psychological symptoms. Non-treatment is an option for asymptomatic warts and the cure should not be worse than the disease.
- There is no definitive evidence that any one treatment is superior to the others and no single treatment is suitable for all patients or all warts.
- The method of treatment should be determined by patient preference, available resources and the experience of the practitioner. Other factors include the size, number and site of the warts, the age of the patient and whether the patient is pregnant.
- Podophyllotoxin for 4 weeks or imiquimod for 16 weeks are suitable home treatments for patients. The patient should be given a demonstration on lesion finding, treatment application and advice about discomfort and local skin reactions from the treatment.
- If there is no significant response within 4 to 6 weeks, an alternative diagnosis, change of treatment modality, or onward referral should be considered.
- Treatment of external visible warts may not decrease infectivity as there is no specific treatment for subclinical HPV infections, most of which resolve spontaneously.
- Because all available treatments have shortcomings, some clinics employ combination therapy (e.g. provider-administered cryotherapy with patient-applied topical therapy between visits to the provider). However, limited data exist regarding the efficacy or risk of complications associated with combination therapy.

Genital Warts – Summary of Treatment

Site	Treatment	Use in Pregnancy
External genital warts	***Patient applied*** Imiquimod (Aldara 5% cream); *OR* Podophyllotoxin solution (males only). ***Provider administered*** Cryotherapy; *OR* Trichloracetic acid; *OR* Surgical removal; *OR* Laser/Diathermy.	No Yes
Cervical warts	For women who have cervical warts, colposcopy and biopsy is not necessary. Treatment is with cryotherapy or surgical removal. Non-treatment is an option Cervical smear should only be done if this is due.	Yes
Vaginal warts	The use of a cryoprobe in the vagina is not recommended because of the risk for vaginal perforation and fistula formation. Treatment is with cryotherapy or surgical removal. TCA (specialist clinics only). Podophyllotoxin and imiquimod – no data.	 Yes No
Intra-anal warts	Treatment is with cryotherapy or surgical removal. TCA (specialist clinics only).	Yes
Urethral meatal warts	Cryotherapy or surgical removal. (N.B. Risk of stenosis.) Podophyllotoxin and imiquimod – limited data.	N/A

hrHPV

Anogenital HPV and cancer

- hrHPV plays a significant role in lower genital tract and oropharyngeal pre-cancers and cancers (cervical 100%, vaginal 90%, anal 80%, penile 50%, vulval 40%, head and neck 26% [oral cavity and pharynx]).
- Persistant infection (detectable over a period of 6–12 months) is a marker for the development of cervical intraepithelial neoplasia grade 2+ (CIN-2+).
- HPV 16 and 18 result in a higher risk of progression to precancerous lesions than infection with other high-risk types.
- Most women with hrHPV will not develop cervical cancer and in many the hrHPV will resolve spontaneously.
- Anal cancer is increasing. MSM and HIV-positive MSM are at most risk.

Diagnosis

- hrHPV is mostly latent and/or subclinical. HPV tests are not available for routine diagnostic testing.
- It is usually detected via cervical smear in women deemed at higher risk according to the guidelines of the national cervical screening programme.
- hrHPV molecular diagnostic techniques (tests) are used according to national guidelines in the triage and management of patients with abnormal cervical smears. (**www.nsu.govt.nz/system/files/resources/interim_hpv_testing_guidance_statement_15.4.10.pdf**)

HPV-related disease in the head and neck

- HPV-associated oropharyngeal cancer is increasingly common, especially in men.
- Increasing the number of lifetime oral sex partners is associated with increased risk.
- Patients often present with lymph node metastases.
- In contrast to cervical cancer, no clinically apparent premalignant condition exists in the vast majority of patients.
- No reliable laboratory screening test exists; therefore, there is currently no indication for population screening for HPV-related head and neck disease.
- Oropharyngeal cancer raises questions for the patient, their partner and health practitioners. A useful guide to discussing these issues includes a printable patient information sheet – HPV and Throat Cancer (**www.hpv.org.nz/images/pdf/hpv-and-throat-cancer-2015.pdf**).

HPV vaccines

- Gardasil vaccine is safe and highly effective in preventing the four important HPV types – 6, 11, 16 and 18.
  - HPV 16 and 18 are associated with cervical cancer and precursor lesions, as well as some other genital pre-cancers and cancers.
  - HPV 6 and 11 cause the majority of genital warts.
- Vaccination should be given prior to the commencement of sexual activity but can still be given after sexual activity commences.
- A higher immune response is achieved when given between the ages of 9 and 15 years and a lower response when given after this.
- The current NZ schedule for HPV vaccination involves three doses given at 0, 2 and 6 months by injection. There is flexibility in the schedule, providing a **minimum interval of 4 months between the first and third dose** is given. Six months or more is ideal. A missed dose does not require the schedule to be restarted.
- Gardasil is free for girls and young women aged 9 years up to their 20th birthday.
- Gardasil is free for persons with confirmed HIV infection and for transplant patients (see the Immunisation Handbook for details **www.health.govt.nz/publication/immunisation-handbook-2014**).
- Gardasil is indicated for females aged 21–45 years and males aged 9–26 years but is not funded.
- Gardasil is recommended but not funded for
  - persons under 26 years who are immunocompromised;
  - MSM (preferably as early after or prior to commencement of sexual activity);
  - boys and young men under the age of 20 years.
- Gardasil can be co-administered with other non-live and live vaccines. Separate injection sites should be used.

The full NCSP Guidelines can be accessed on:
www.nsu.govt.nz/health-professionals/national-cervical-screening-programme/cervical-screening-guidelines

Key Information for Patients

While it is helpful to normalise a diagnosis of a viral STI, it is important not to unintentionally be dismissive of the potential for psychological morbidity. The way to do this is to proactively provide information and education and address key concerns. The following information may be helpful:

- HPV is a very common sexually transmitted infection that can infect the genital areas of men and women. It can also infect the mouth and throat. Most sexually active people get HPV at some time in their lives, although most never know it.
- Most persons who acquire HPV do not develop health problems from it. In most cases, the body's natural defences control HPV before it can cause any health problems.
- When the body does not control HPV infection, genital warts can develop.
- Genital warts can develop months or years after getting HPV. Genital warts can be passed on to another person even when there are no visible signs of warts.

HPV and cancer

- HPV can also cause cervical cancer and other cancers, including cancers of the anus, penis, vulva, vagina, and head and neck. Most HPV clears and does not lead to cancer.
- The types of HPV that cause genital warts are different from the types that can cause cancer.
- There is no evidence that cancer (rather than HPV) can be transmitted to a partner through sexual activity.

Treatment

- There are treatments for the conditions caused by HPV, but not for the virus itself.
- Women with genital warts do not need cervical smears more often than other women.
- Routine STI screening does not include testing for either HPV or HSV. There is no sure way to know when HPV was acquired or from whom.

HPV and partners

- Partners who have been together tend to share HPV. Having HPV does not mean that a person or his/her partner is having sex outside the relationship.
- There is no need to alter sexual activity with a stable partner, as sharing of HPV would have occurred long before the abnormal smear result or clinical appearance of the lesion.
- There is no reliable HPV test to check HPV status. This means there is no test that can help answer the questions "Do I have HPV?", "Does my partner have HPV?", "Has my HPV gone?", "Can I have the vaccine?".
- It is not clear if there is any health benefit to informing (future) partners about a past diagnosis of genital warts. This is because it is not known how long the virus remains after warts are gone.
- HPV does not affect fertility.
- People with HPV can have normal sex.

Prevention

- Condoms have some use in the reduction of transmission of genital HPV.
- HPV vaccine (Gardasil) immunises against four types of genital HPV: Types 16 and 18 which cause 70% of cervical cancers and types 6 and 11 which cause 90% of genital warts.
- Cervical cancer can be prevented by HPV vaccination and having regular smears.

For more information about cervical screening and HPV testing please go to the New Zealand Cervical Screening Programme, **www.nsu.govt.nz/national-cervical-screening-programme/hpv-and-cervical-cancer/hpv-testing**.