

### ASSESS IF:

- Symptoms of lumps in genital region
- Having a sexual health check (male and female)
- Having an assessment of genital symptoms

### DIAGNOSIS AND TESTING BY CLINICAL EXAMINATION

- Document findings
- Speculum examination in women and genital and perianal examination in both genders
- Distinguish from normal anatomical variants e.g. pearly penile papules (coronal papillae), vestibular papillomatosis, Fordyce glands etc., and from Molluscum contagiosum
- If benign appearance and diagnosis uncertain, observe and arrange follow-up review
- Offer screening for other STIs including serology for HIV and syphilis (see Sexual Health Check guideline [www.nzshs.org/guidelines](http://www.nzshs.org/guidelines))

### ASSESSMENT FOR TREATMENT MODALITY

- Decision made on case-by-case basis on discussion with patient
- Consider:
  - Gender
  - Pregnancy
  - Site of lesions
  - Size and number of lesions and degree of keratinisation
  - Patient preference and social circumstances

### TREATMENT OPTIONS (see Management Guidelines below for details)

**None:** Treatment is largely cosmetic and a decision not to treat is an option.

**Cryotherapy:** For treatment of small numbers of warts.

**Patient applied:**

- Podophyllotoxin solution 0.5% twice daily 3 consecutive days per week for 5 weeks – for men only, for use on lesions which can be visualised by patient
- Imiquimod cream 5% once daily 3 x weekly for up to 16 weeks in persons over 18 years, for warts not responsive to podophyllotoxin or in areas not easily visualised. (Fully subsidised – Special Authority not required from February 2015.)

**Specialist settings:** Diathermy, laser or surgery.

**Combination:** Cryotherapy plus podophyllotoxin or imiquimod.

**Other management:**

- Lignocaine 2% gel pre- or post-treatment
- Counselling and education

**Special situations:** **Pregnancy:** Cryotherapy is the only recommended treatment option.

**Children:** Refer to paediatrician.

**Specialist referral:**

- Atypical warts (including pigmented lesions)
- For treatment on clinician request
- Management of cervical warts (or discuss with specialist)
- Pregnancy, immunosuppression, diabetes.
- Management of extensive anogenital warts
- HIV positive patients

### PARTNER MANAGEMENT

- Contact tracing not required
- Partners should be offered a sexual health check and education

### FOLLOW-UP

- Follow-up at end of course of treatment is recommended to confirm treatment response

### PREVENTION

- Quadrivalent vaccine, currently on schedule for year 8 girls
- Funded and recommended for transplant patients and HIV positive persons under 26 years
- The vaccine is recommended but not funded for immune compromised individuals, MSM, boys and young men under 20 years

Further guideline information – [www.nzshs.org](http://www.nzshs.org) or [www.hpv.org.nz](http://www.hpv.org.nz) or phone local sexual health service.

This Best Practice Guide has been produced by NZSHS. Every effort has been taken to ensure that the information in this guideline is correct at the time of publishing (February 2015).

### Introduction

- **Caused by human papilloma virus (HPV)** – greater than 40 genital types.
- Visible genital warts usually due to types 6 and 11.
- Main high risk types 16 and 18 are found in pre-malignant conditions such as cervical intraepithelial neoplasia (CIN), vulval intraepithelial neoplasia (VIN), anal intraepithelial neoplasia (AIN) and in sub-clinical cervical, vulval and anal infection.
- **Lifetime risk of HPV infection ~80%.**
- **Prevalence** of asymptomatic infection in **young sexually active people aged under 25 is ~20%**, however clinical genital warts are much less common.
- Average duration of HPV infection is approximately 18-24 months but may be significantly longer and long term latent infection is possible.
- Infection with multiple different HPV types is possible.
- Transmission is mainly via genital skin contact – condoms are not fully protective.

### Symptoms and signs

#### Symptoms

- Genital lumps – in women commonly vulval or perianal; in men commonly penile shaft, glans penis, coronal sulcus, or perianal.
- Often asymptomatic but may be itchy or painful or may bleed.

#### Signs

- Genital lumps on examination – may also involve vagina and cervix in women.

**Note:** The presence of perianal lesions is not necessarily associated with anal intercourse.

#### Diagnosis

- **Diagnosis** is made on **clinical grounds**.
- Distinguish from anatomical variants, e.g. pearly penile papules (coronal papillae), vestibular papillomatosis, Fordyce glands etc., and from Molluscum contagiosum.

### Management

- **The goal of treatment is cosmetic rather than curative** therefore the decision not to treat is an option at any stage.
- Genital warts can cause significant emotional distress due to fear of social stigmatisation and lesions can be of aesthetic concern.
- Women with genital warts should have cervical smears as recommended by the National Cervical Screening Programme guidelines.
- Regular review is recommended to ensure treatment efficacy and tolerability.
- All patients with genital warts should be offered a sexual health check (see Sexual Health Check guideline [www.nzshs.org/guidelines](http://www.nzshs.org/guidelines)).

#### Vaginal warts

- Treatment options should be discussed with the patient – since vaginal warts are not generally evident to the patient, a decision not to treat may be taken if the warts are not extensive.
- Consider specialist referral to sexual health clinic or gynaecology clinic if extensive.

#### Cervical warts

- All women with cervical warts require follow-up to ensure resolution and should be discussed with a gynaecologist or sexual health physician.
- Women with abnormal cervical smears should be managed according to the National Cervical Screening Programme guidelines [www.nsu.govt.nz/health-professionals/national-cervical-screening-programme/cervical-screening-guidelines](http://www.nsu.govt.nz/health-professionals/national-cervical-screening-programme/cervical-screening-guidelines).

#### Anal warts

- Patients with **perianal warts who have anorectal** symptoms, e.g. rectal bleeding or pain, should be referred for specialist review.

### Treatment regimens

#### Patient applied

**Podophyllotoxin (Condyline™) solution 0.5% twice daily 3 consecutive days per week for 5 weeks.**

- For men only, for use on warts which can be visualized by patient.
- To be used with caution – can cause significant ulceration if not applied appropriately. Vaseline can be used to protect surrounding skin.
- Suitable for small numbers of warts on keratinized skin.
- In general, podophyllotoxin is not suitable for women or for perianal warts.
- If significant irritation therapy should be interrupted – but may be resumed with caution once skin healing has occurred.
- Must not be used in pregnancy.

### **Imiquimod (Aldara™) cream 5% once daily 3 times weekly for up to 16 weeks.**

- Fully subsidised on Special Authority (not required from February 2015) for warts that are not easily visualised or warts not responding to podophyllotoxin (see [www.pharmac.govt.nz/PharmaceuticalSchedule/SAForms](http://www.pharmac.govt.nz/PharmaceuticalSchedule/SAForms)).
- Suitable for **women and men with minimally keratinised warts** (e.g. introital, perianal, subpreputial).
- Can cause erythema, irritation and ulceration. Mild effects are common. If moderate to severe side effects occur, it is recommended that a break from treatment is taken, with gradual reintroduction.
- Not recommended in pregnancy.

### Clinician applied

**Cryotherapy** using liquid nitrogen or CO<sub>2</sub> to produce an 'ice ball' on visible lesions.

- Offer lignocaine gel 2% for pre- or post-treatment discomfort.
- Repeat weekly up to 6 weeks.
- Review treatment plan if persistent warts after 6 treatments.

### Specialist level treatment

Consider in management of more extensive warts – higher risk of morbidity.

- **Diathermy.**
- **Laser.**
- **Surgery.**

### Combination treatment

- More than one treatment may be used simultaneously or sequentially.
  - Podophyllotoxin 0.5% solution at the time of cryotherapy; or cryotherapy of larger lesions, followed by imiquimod cream 5%.
- There is some evidence to support combination treatments but monitoring of side effects is important.

### Pregnancy

- Cryotherapy is the only recommended treatment modality in pregnancy.
- Extensive warts require specialist review.
- Podophyllotoxin and imiquimod are contraindicated in pregnancy.

## Partner notification and management of sexual partners

- Not required, but it is recommended that sexual partners have a sexual health check and be given information on HPV infection.
- Advise patients that regular partners should be informed of the diagnosis.

## Follow-up

- Follow-up until there are no visible warts may decrease the chance of recurrence.
- Relapses are treated as appropriate to site and size.

## Prevention

- The quadrivalent HPV vaccine prevents 90% of anogenital warts if schedule is completed before sexual debut.
- It is included in the immunization schedule for girls in year 8 (12 years).
- The vaccine is funded and recommended for girls and young women aged under 20 years, HIV +ve individuals under 26 years and transplant patients.
- The vaccine is recommended but not funded for immune compromised individuals, MSM, boys and young men under 20 years.
- See [www.health.govt.nz/system/files/documents/publications/immunisation-handbook-may14-v5\\_0.pdf](http://www.health.govt.nz/system/files/documents/publications/immunisation-handbook-may14-v5_0.pdf) for information.

## Referral guidelines

**Referral to a specialist sexual health service is recommended for:**

- Management of warts if clinician wishes.
- Cervical warts (or discuss with specialist).
- Atypical warts (including pigmented lesions)
- Pregnancy, immunosuppression, diabetes.
- Extensive anogenital warts.
- HIV positive patients.

Further guideline information – [www.nzshs.org](http://www.nzshs.org) or [www.hpv.org.nz](http://www.hpv.org.nz) or phone local sexual health service.

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