Aotearoa New Zealand STI Management Guidelines for Use in Primary Care

Candidiasis

Cause

- Usually *Candida albicans*, less commonly other Candida species including C. *glabrata, C. tropicalis, C. krusei* and *C. parapsilosis*

Overview

- Candidiasis is an infection with *Candida species,* caused by an overgrowth of the organisms often present in small amounts in the genital tract
- Pathogenesis is unclear but there is likely to be a combination of genetic and immune factors
- Asymptomatic people do not require treatment
- Not considered to be a sexually transmitted infection (STI)
- There is often no obvious cause, however risk factors include:
    - Antibiotic use (within past 3 months)
    - Poorly controlled diabetes
    - Increase in oestrogen, either exogenous or endogenous (including pregnancy, menopausal hormone therapy and possibly combined oral contraception)
    - Skin conditions e.g. eczema or dermatitis
    - Immunosuppression
- Although not specifically recognised as risk factors, people with recurrent candidiasis may benefit from avoidance of perfumed products and tight clothing that promotes excessive sweating e.g. wetsuits, synthetic underwear
- Approximately 75% of women will experience at least one lifetime episode; less than 5% will have recurrent candidiasis (defined as 4 or more

symptomatic episodes within 12 months)
- Candida may cause balanitis, especially if uncircumcised

Clinical presentation

Site of infection	Signs and symptoms
Vulvovaginal	• White 'curd like' vaginal discharge although discharge can appear normal • Genital or vulval itch, discomfort • Superficial dyspareunia • External dysuria • Excoriation, erythema, fissures, swelling
Penile	• Red rash on genitals, especially under foreskin, may or may not be itchy • Swelling of foreskin if severe • Fissures • Superficial erosions

Indications for testing

- Vaginal discharge
- Vaginal odour or itch
- Genital discomfort
- Superficial dyspareunia
- Genital rash, erosions or fissures

Routine screening in asymptomatic people is not recommended

Recommended tests

Vulvovaginal

- Examination is recommended for thorough assessment as symptoms of candidiasis are non-specific and may be due to other conditions such as dermatitis or genital herpes
- Self-collected swabs can be obtained if examination is declined, but this is not recommended
- STIs may cause symptoms similar to those of candidiasis. **Unless STIs have been excluded, testing should occur as part of a full sexual**

health check

- Recurrent candidiasis (4 or more symptomatic episodes in 12 months) should be confirmed by culture or microscopy on at least 2 occasions, before considering suppressive therapy

Test	Consideration
High vaginal swab for Candida and bacterial vaginosis (BV)	Clinical details must be included on laboratory form to ensure sample is processed appropriately BV is another common cause of unusual vaginal discharge
Consider	
Vulvovaginal NAAT swab for chlamydia, gonorrhoea and trichomoniasis	If examined, vaginal swab should be taken before speculum insertion Symptoms and signs of candidiasis may be similar to other genital infections, including STIs
HIV and syphilis serology	If STI screening is indicated

NAAT – Nucleic Acid Amplification Test

Penile

- Examination is recommended for thorough assessment as symptoms of candidiasis are non-specific and may be due to other conditions such as dermatitis or genital herpes
- Usually diagnosed based on signs and symptoms
- **Unless STIs have been excluded, testing should occur as part of a full sexual health check**
- People with confirmed recurrent candida balanitis should be screened for diabetes, and the status of their sexual partner(s) should be discussed (often occurs in the context of untreated recurrent vulvovaginal candidiasis in the partner)

Test	Consideration

Culture swab	Culture for yeast May be negative in cases that respond to empiric therapy

Management

- Treatment is indicated in **symptomatic** people only
- Topical and oral azoles have a similar efficacy
- Recurrent candidiasis (4 or more symptomatic episodes in 12 months) should be confirmed by culture or microscopy on at least 2 occasions, before considering suppressive therapy
- If breakthrough symptoms on suppressive therapy occur, confirm ongoing candida before changing treatment regimen. Request culture swab for speciation and sensitivities, and write 'breakthrough symptoms while on suppressive therapy' on the request form

Situation	Recommended	Alternative
Acute candidiasis	**Vulvovaginal**	
	Clotrimazole 2% vaginal cream, one vaginal applicator every night for 3 days OR Fluconazole 150 mg orally, as a single dose	Nystatin vaginal cream, one applicator 1-2 times daily for 2 weeks OR Miconazole 2% vaginal cream, one vaginal applicator every night for 7 days
	Penile	
	Clotrimazole 1% topical cream twice daily for 5-7 days	Miconazole 2% topical cream twice daily for 5-7 days
Recurrent vulvovaginal candidiasis	Induction with fluconazole 150 mg orally, every 72 hours for 3 doses, followed by maintenance with fluconazole 150 mg orally, weekly for 6 months	Clotrimazole 2% vaginal cream one vaginal applicator every night for 3 days. Repeat every month for 6 months

Recurrent vulvovaginal candidiasis due to non-*albicans* species or resistant *C. albicans*	Seek specialist advice	Seek specialist advice

Other management

- Avoid local irritants e.g. soaps, bath oils, body washes, bubble baths, spermicides, vaginal lubricants, vaginal hygiene products
- Soap substitute for washing e.g. Sorbolene, Cetaphil, QV
- Latex condoms, diaphragms and cervical caps can be damaged by antifungal vaginal creams
- Sexual partners only require treatment if symptomatic
- No strong evidence that specific diets or the use of probiotics influence the recurrence of candidiasis

Special Situations

Situation	Recommendation
Breastfeeding	• As above
Pregnancy	• Fluconazole contraindicated • May need longer course of topical treatment
Allergy or contraindications	• Try alternative treatment

Partner notification and management of sexual contacts

- Contact tracing is not required
- Treatment of the partner is only indicated if they are symptomatic

Follow up

Follow up
• Not required unless symptoms persist or recur

Test of cure

• Not recommended

Indications for specialist referral

Referral to or discussion with a sexual health specialist is recommended for:

- Persistent or recurrent candidiasis
- Failure to respond to above treatment
- Complicated clinical situations for further management

Auditable outcomes

- Recurrent candidiasis is confirmed by culture or microscopy on at least 2 occasions for 100% of patients commencing suppressive therapy
- Contraceptive method and risk of teratogenicity is documented for 100% patients commencing suppressive therapy

Useful patient resources

What's going on down there

Endorsement: These guidelines have been endorsed by the Blood Borne Viruses and Sexually Transmitted Infections Standing Committee (BBVSS).

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