

# VULVOVAGINAL CANDIDIASIS

April 2010

Candidiasis may occur in healthy as well as immunocompromised patients. Risk factors include:

- Diabetes
- Pregnancy
- Antibiotic use
- immunosuppressive therapy
- damaged skin (eg dermatitis, intertrigo)

Diagnosis generally should not be made in the absence of symptoms; culture may only reflect fungal colonization. Candidiasis is usually endogenous in origin and is not considered to be a sexually transmitted infection. Causative species:

- 80-90% *Candida albicans*.
- Non-albicans species - e.g. *C. glabrata*  
- see separate treatment protocol.

## DIAGNOSIS

- Wet prep - sensitivity 50-60%.
- Gram stain - sensitivity 60-70%.
- Wet prep with KOH - sensitivity - 70-80%.
- Culture will be positive in 30-50% of cases with negative micro (NB culture is commonly positive in asymptomatic women)
- Recent antifungal treatment in the previous 4 weeks can suppress growth in culture medium and give false negative results.

## Culture Media at MSHC.

### Use of trichomonas and gonococcal media:

Yeasts grow extremely well in trichomonas and gonococcal media. These are cheaper to use at MSHC than specialized Sabouraud's medium to speciate yeasts.

Swab symptomatic vulval sites and the vagina and inoculate these media as well as the microscope slides.

### *Clinicians please note:*

Annotate the MDU request in the Details box with "for yeasts" and clearly write in the history next to the tick boxes that the trich and GC samples are "for yeasts".

## MANAGEMENT

### Acute VVC:

- All topical and oral azole therapies give cure rates of 80-95% in non-pregnant women.
- Nystatin preparations give cure rates of 70-90%.
- Stat topical treatments have a slightly higher failure rate
  - Topical azoles may work faster than oral azoles
  - Add topical 1% hydrocortisone cream bd if there is significant vulvitis (exclude HSV if fissures or erosions)
  - - treatment options are as follows:
    1. Clotrimazole 100mg pessary or cream intravaginally for 6 nights
    2. Miconazole 100mg cream or pessary for 6 nights.
    3. Nystatin vaginal cream (100,000U) intravaginally for 14 nights (or pessary bd for 7 days).
    4. Clotrimazole 200mg pessary 3 nights.
    5. Clotrimazole 500mg pessary stat.
    6. Fluconazole 150mg stat – repeat in 3 days if severe. (consider additional PV azole in first few days if severe and 1% hydrocortisone).

## Disclaimer

The content of these treatment guidelines is for information purposes only. The treatment guidelines are generic in character and should be applied to individuals only as deemed appropriate by the treating practitioner on a case by case basis. Bayside Health, through MSHC, does not accept liability to any person for the information or advice (or the use of such information or advice) which is provided through these treatment guidelines. The information contained within these treatment guidelines is provided on the basis that all persons accessing the treatment guidelines undertake responsibility for assessing the relevance and accuracy of the content and its suitability for a particular patient. Responsible use of these guidelines requires that the prescriber is familiar with contraindications and precautions relevant to the various pharmaceutical agents recommended herein.

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## Pregnancy:

Oral azoles contraindicated. Use topical therapy in longer duration i.e. 12-14 days as lower re- sponse rates and more frequent relapse.

## Recurrent VVC:

- Occurs in 5% of healthy women.
- Defined as 4 or more mycologically proven episodes per year.
- Evidence suggests that some women develop a localized hypersensitivity to yeasts that interferes with effective immune response and predisposes to recurrence (it is the same yeast population that recurs)
- There is no evidence that treating the partner reduces recurrence – he or she should be treated if symptomatic
- No currently available treatment is fungicidal – treatment is aimed at suppressing growth
- Nystatin will not be effective if given orally as it is not absorbed from the gastrointestinal tract
- Regimens not based on RCTs.

Exclude co-morbidities: underlying dermatoses, and vulval pain syndromes are commonly associated. Instruct all patients regarding good skin care (refer to Genital skin care Fact sheet).

## Induction regimens:

1. Oral therapy: 150mg fluconazole (may repeat in 3 days or add topical azole as above) then weekly for 4-6 weeks .
2. Topical: Nystatin 100,000U intravaginally nightly for 28 days (nystatin is less irritating than other topical agents and less likely to lead to contact dermatitis)
3. Vaginal azole for 2 weeks
4. Review at one month and repeat micro and culture.

## Maintenance regimens:

1. fluconazole 150mg weekly (2-3 months, less if very good response) then taper to fortnightly and monthly

as tolerated to a total of 6 months. Trial 50-100mg doses if response is good to 150 mg. (remember there is no RCT as yet to support regimens).

2. nystatin or azole cream or pessary 3 x weekly and tapering to 2 x weekly then once weekly over a 6 month period
3. February 2009
4. breakthrough VVC may occur during tapering so review is important and some patients need to stay on the higher or more frequent doses for the 6 month period.
5. 50% of women experience relapse within 6 months of completing therapy – longer term suppression may be needed.

## MANAGEMENT OF CANDIDA GLABRATA and other non-albicans species

### First Line therapy

- Any topical vaginal antifungals can be used first line as some patients will respond after standard treatments. These are recommended also because of their ready availability.
- Glabrata is not always symptomatic, symptoms may be from concurrent albicans or dermatosis or pain syndrome.
- If the woman has already tried standard treatments then a trial of higher dose azoles or nystatin is required for a longer duration.
- A MSHC discussion group decided to trial bd topical antifungals of 2 classes for 14 days in order to address resistance problems.
- Try miconazole (monistat) and nystatin (nilstat) topical intravaginal creams or pessaries bd- can be used at opposite ends of the day - for 14 days.
- Consider a follow-up vaginal culture 2-4 weeks following completion of treatment

### Second Line therapy

- Boric Acid pessaries daily for 14 days (available from pharmacy at MSHC and select compounding

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pharmacies - poisoning/toxicity must be discussed with patient). Used if failed first line therapy.

- There are no evidence based guidelines for maintenance therapy. Consider:
- nystatin cream 3 times weekly OR
- boric acid pessaries 3 times weekly for 2 weeks then weekly for 2 weeks OR
- oral ketoconazole (100mg daily and requires monthly LFTs) or itraconazole maintenance therapy (variable doses and intervals in the literature reported, range of 50-100mg daily to 400mg monthly) - note liver toxicity and drug interactions with ketoconazole and cost of itraconazole.
- Duration of suppression needs to be individualized and can range from 1-6 months depending on past history, therapy used and patient preference.
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## **OTHER THERAPIES**

- Amphotericin - intravaginal use has been reported in the literature either prepared in a cream base or use of the oral lozenges - dose and duration not established. Commonly try bd two weeks, then taper to x2-3 per week.
- Flucytosine - alone or in combination with amphotericin has been used with success in glabrata. Capsules are compounded with a cream base and inserted nightly for 7 nights.
- Gentian Violet - 0.25-0.5% aqueous solution intravaginally at home daily or 1% weekly by physician - 3 weeks. (note - ulceration can occur).