Candidiasis

For more detail see Non-Notifiable Infections within the Department of Health WA Silver Book: Candidiasis or Australian Therapeutic Guidelines: Dermatology.

Anogenital skin conditions - search under Candidal Vulvovaginitis

Considerations:

- Asymptomatic infection does not require treatment
- Any of the imidazole preparations are effective, either as cream or pessaries. Various preparations are available for either single dose therapy, or three to seven days of therapy.
- Topical nystatin is a possible alternative to topical azoles
- Non albicans candida species (approx 20% of cases) may not respond toazole therapy. Treatment with fluconazole should generally be avoided and specialist advice be obtained.
- Contributing factors include high estrogen content oral contraceptive pill or hormone replacement therapy and underlying type 2 diabetes
- Behavioural factors include the use of tight fitting synthetic clothing, vaginal douching and use of daily panty liners
- Alternative causes of vulvovaginitis should be considered if therapy fails to control symptoms
Treatment options:
There are many different formulations available, see KEMH pharmacy resources for medications routinely stocked at KEMH.

- Clotrimazole—See Pharmacy Adult Medication Monograph: Clotrimazole
  OR
- Nystatin—See Pharmacy Adult Medication Monograph: Nystatin

Notes about topical treatments:
- Prolonged use should be avoided as contact dermatitis may result.
- Vaginal creams and pessaries may weaken latex condoms and diaphragms

Topical treatment in pregnancy
A 12-14 day course is recommended due to lower response rates and more frequent relapse.

Oral therapy
Oral therapy with fluconazole, including doses of 150mg-300mg has been associated with a statistically significant increase risk of spontaneous miscarriage compared with unexposed women and women with topical azole exposure in pregnancy. The evidence for an increased chance of miscarriage after a single dose is not clear. Decisions regarding fluconazole use in pregnancy require careful consideration of potential risks and benefits.

Generally, systemic treatment with fluconazole should be avoided in pregnancy. Oral treatments are no more effective than topical preparations for uncomplicated infections.

Fluconazole is considered teratogenic at higher continuous daily doses (> 400mg a day) as in utero exposure has resulted in a pattern of malformations similar to Antely-Bixler syndrome. Data suggests no increased risk of congenital anomalies after single doses of 150 mg.

Refractory candidiasis
Some strains of candida are more resistant to treatment than others. In cases of refractory candidiasis the candida species should be identified by the laboratory. This will need to be requested on the pathology form, or the microbiology laboratory contacted to arrange.

*Candida glabrata which has failed treatment with imidazoles can be treated with boric acid 600 mg pessaries per vagina (one per night) for two weeks. These need to be manufactured. There is limited safety data re use in pregnancy. Seek specialist advice. Topical nystatin is an alternative treatment for non albicans candida spp.

Recurrent candidiasis
Four or more episodes of symptomatic vaginal candidiasis occurring over 12 months may require a 2 step process.
Symptoms should be controlled with daily topical or oral therapy until symptoms have resolved. Relapse prevented with 1-2 times weekly maintenance therapy—either topical or systemic. Many different alternate regimens are published.

For example, a topical or systemic approach could be:

- Nystatin 100 000U/5g 1 applicatorful, intravaginally, at night (suitable for pregnant women) followed by 1-2 times weekly use\(^1\)

  OR

- Fluconazole 50 mg orally, once daily (if non pregnant) followed by 50 mg 1-2 times per week is recommended in Therapeutic Guidelines with review at 3 months\(^1\). However a regimen of 150mg every 3 days for 3 doses, then 150mg once a week for 6 months is also recommended in other guidelines\(^2,3\) and is the preferred regimen at the KEMH Sexual Health Clinic.

### Trichomoniasis

**See Non-Notifiable Infections section**- [Department of Health WA Silver Book]

- **Trichomoniasis**

  NAAT (PCR) of a dry vaginal swab or first void urine specimen is the preferred test.

  **Note:** treatment of partner(s) is indicated

### Bacterial vaginosis

**See Non-Notifiable Infections** in [Department of Health WA Silver Book]

- **Bacterial vaginosis**: ‘Treatment’ (including initial, recurrent and in pregnancy)

  Systemic treatment is usually advised in pregnancy, although topical clindamycin 2% vaginal cream is given as a treatment option for <20 weeks gestation in therapeutic guidelines.

### Sexual Health Clinic KEMH

Internal referrals—use eReferral. For [GP referral] to the Sexual Health Clinic at KEMH, see ‘Sexual Health’ in the [Specialist Outpatient Department Referral Directory].

Any patient with refractory candidiasis or non albicans candidiasis can be referred to this clinic.
Infections (Vaginal): Candidiasis, trichomoniasis, bacterial vaginosis

References

Bibliography
Silver Book Guidelines for Managing Sexually Transmitted Infections (Accessed 1 Dec 2020). Govt. of Western Australia, Department of Health, Public Health.

Related WNHS policies, procedures and guidelines
KEMH Clinical Guidelines:
- Obstetrics & Gynaecology:
  - Infections (O&G): Antibiotic treatment and prophylaxis guidelines
  - Sexually Transmitted Infections
  - Vaginal Procedures
- Pharmacy A-Z: Clindamycin, Clotrimazole, Fluconazole, Metronidazole, Nystatin
GP resources: Specialist Outpatient Department Referral Directory and Referrals webpage

Keywords: Vaginal infection, antibiotic, AB, AMS, antimicrobial stewardship, candida, thrush, candidiasis, trichomoniasis, bacterial vaginosis

Document owner: Obstetrics and Gynaecology Directorate

Author / Reviewer: WNHS Senior AMS Pharmacist; Microbiology Consultant; Sexual Health Physician; Head of Department Gynaecology

Date first issued: October 2001

Reviewed dates:
- (prior to 2016 within Pharmacy guidelines); May 2016 (O&G); Oct 2021
- Next review date: Oct 2024

Supersedes: This Oct 2021 version supersedes the May 2016 version

Approved by: Medicines and Therapeutics Committee (OOS)
- Date: 24/09/2021
- WNHS Health Service Permit Holder under the Medicines and Poisons Regulations 2016
- Date: 04/10/2021
- Antimicrobial Stewardship Committee (OOS)
- Date: 06/10/2021

Endorsed by: Obstetrics and Gynaecology Directorate Management Committee
- Date: 06/10/2021
Infections (Vaginal):
Candidiasis, trichomoniasis, bacterial vaginosis

NSQHS Standards (v2) applicable:

☐ 1: Clinical Governance
☐ 2: Partnering with Consumers
☒ 3: Preventing and Controlling Healthcare Associated Infection
☒ 4: Medication Safety
☐ 5: Comprehensive Care
☐ 6: Communicating for Safety
☐ 7: Blood Management
☐ 8: Recognising and Responding to Acute Deterioration

Printed or personally saved electronic copies of this document are considered uncontrolled.
Access the current version from WNHS HealthPoint.

Version history

<table>
<thead>
<tr>
<th>Date</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 2014</td>
<td>Changed to P3.4 within Pharmacy: ‘Guidelines relevant to obstetrics and midwifery’. Refer to pharmacy for details.</td>
</tr>
</tbody>
</table>
| May 2016      | • Moved to O&G guidelines (section A:14 ‘Obstetric and Gynaecological Infections’). Title changed to ‘Vaginal Infections: Antibiotic Treatment for’.
• Oral therapy with fluconazole, including doses of 150mg-300mg associated with a statistically significant increase risk of spontaneous miscarriage compared with unexposed women and women with topical azole exposure in pregnancy. Oral treatments are no more effective than topical preparations for uncomplicated infections. |
| Oct 2021      | • General: Title changed to ‘Infections (Vaginal): Candidiasis, Trichomoniasis, Bacterial Vaginosis’ and added section for the Sexual Health Clinic at KEMH.
• Candidiasis:
  ➢ Non albicans candida species may not respond to azole therapy
  ➢ Contributing factors include high estrogen content OCP or HRT and underlying type 2 diabetes
  ➢ Behavioural factors include the use of tight fitting synthetic clothing, vaginal douching and use of daily panty liners
  ➢ Consider alternative causes if therapy does not control symptoms
  ➢ Treatment options- links to pharmacy information
  ➢ Oral therapy- The evidence for an increased chance of miscarriage after a single dose is not clear
  ➢ Refractory candidiasis- Limited safety data re use in pregnancy.
  Topical nystatin is an alternative treatment for non albicans candida spp
  ➢ Recurrent candidiasis- Medication advice has changed- read section
• Trichomoniasis: Now links direct to Silver Book. NAAT (PCR) of a dry vaginal swab or first void urine specimen is the preferred test.
• Bacterial vaginosis: Now links direct to Silver Book. Topical clindamycin 2% vaginal cream is a treatment option for <20 weeks gestation.
Infections (Vaginal):
Candidiasis, trichomoniasis, bacterial vaginosis