Australian STI Management Guidelines for Use in Primary Care

Bacterial vaginosis

Overview

Most common cause of abnormal vaginal discharge in people of childbearing age.

Cause

A polymicrobial dysbiosis characterised by a change from a *Lactobacillus* dominant state to one with high diversity and quantities of anaerobic bacteria including *Gardnerella vaginalis*, *Atopobium vaginae*, *Mobiluncus spp*, *Prevotella spp*, and other BV-associated bacteria. Studies have identified a polymicrobial biofilm adherent to vaginal epithelial cells of people with bacterial vaginosis.

Sexual transmission of bacterial vaginosis has not been established however there is a strong association between acquisition of BV and young age of first sex, increased numbers of sex partners, exposure to new sex partners and lack of condom use for penile-vaginal sex.

BV-associated bacteria are present in the urethra and penile skin in partners of people with bacterial vaginosis and women who have sex with women show very high concordance for bacterial vaginosis within partnerships.

Post-treatment recurrence of bacterial vaginosis is associated with exposure to an ongoing sex partner and lack of condom use for penile-vaginal sex.

Clinical presentation

Symptoms
• Malodorous vaginal discharge • Thin white or greyish homogenous vaginal discharge • Commonly asymptomatic (up to 50%)

Complications
Increased risk of: • spontaneous abortion • premature labour • chorioamnionitis • postpartum endometritis • pelvic inflammatory disease (including after surgical termination of pregnancy, intra-uterine device (IUD) insertion or other gynaecological instrumentation) • acquisition of chlamydia, gonorrhoea, herpes simplex type 2 • acquisition and transmission of human immunodeficiency virus (HIV) infection.

Diagnosis

Clinical diagnosis is made using Amsel criteria (see below); if 3 or 4 of the following criteria are present, presumptive treatment can be offered.

1. Thin white/grey homogenous discharge on speculum examination
2. Elevated vaginal pH (pH > 4.5)
3. Whiff test: malodour with addition of potassium hydroxide to vaginal secretions, or if not available, genital malodour on examination
4. Clue cells on microscopy of Gram stain of high vaginal swab.

Specimen collection:

Clinician collection ensures visualisation of secretions and measurement of vaginal pH; microscopy can be performed on self-collected or clinician collected swabs smeared on a slide.

Special considerations

Isolation of *Gardnerella vaginalis* (by NAAT) is reported by some laboratories but cannot be used to diagnose bacterial vaginosis as this organism can also be isolated in people with an optimal vaginal microbiota and no bacterial vaginosis. If your laboratory uses NAAT testing, speak to your pathology provider about its comparative performance. Scoring of the vaginal Gram stain (i.e. Nugent score, Ison-Hay method), are increasingly only used in specialised services.

Clinical Indications for testing

Symptoms of bacterial vaginosis: abnormal vaginal discharge and/or malodour

Management

Principal treatment option		
Situation	**Recommended**	**Alternative**
Symptomatic bacterial vaginosis	Metronidazole 400 mg PO, BD with food for 7 days. OR Metronidazole 0.75% gel 5 g, intravaginally nocte for 5 nights (not on PBS). OR Clindamycin 2% vaginal cream 5 g, one applicator intravaginally nocte for 7 days (not on PBS).	Clindamycin 300 mg PO, BD for 7 days. OR Metronidazole 2 g PO, stat.

BD : twice a day

Nocte: every night

PO: orally

Stat.: immediately

PBS: Pharmaceutical Benefits Scheme

Treatment advice

- Treatment is aimed at alleviating symptoms in symptomatic people or offered to asymptomatic people requesting treatment.
- Stat. dose and short-duration regimens are associated with higher rates of recurrence.
- Patients should refrain from vaginal penetrative sexual practices or use condoms consistently during treatment.
- Douching and intravaginal cleaning practices should be avoided.

Evidence does not support routine screening for bacterial vaginosis in low risk pregnancies, before surgical termination of pregnancy or insertion of an IUD in asymptomatic people. Bacterial vaginosis diagnosed or suspected at the time of IUD insertion should be treated with no need to delay the procedure; for surgical abortion antibiotic prophylaxis refer to Electronic Therapeutic Guidelines (eTG) and local guidelines.

- Copper IUDs have been associated with increased risk of bacterial vaginosis acquisition and recurrence. If a patient using an IUD develops bacterial vaginosis, treat as recommended; if the patient experiences recurrent bacterial vaginosis with a copper IUD consider switching to an alternative method.
- > 50% of people experience post-treatment recurrence within 3-12 months.
- There is currently insufficient evidence to recommend the use of intravaginal lactic acid or vaginal probiotics.
- Treatment is not currently recommended in partners but trials are ongoing.

Special treatment situations

Situation	Recommended
Breastfeeding	Consider intravaginal treatment. Metronidazole may affect taste of breast milk; avoid high doses in breastfeeding.
Pregnancy	Standard treatment is recommended if symptomatic. There is no clinical benefit of treatment for asymptomatic patients in low-risk pregnancies.
Recurrent infection	Intravaginal metronidazole 0.75% gel 5 g twice per week for 4 months reduces recurrence during treatment, although this benefit does not persist when discontinued. Intravaginal boric acid regimens (via compounding pharmacy) have also been used but have not shown sustained benefit on discontinuation. Seek specialist advice if required.
Allergy to principal treatment choice	If allergic to nitroimidazoles, use clindamycin.
Intravaginal preparations	May affect condom integrity.

Contact tracing

- Contact tracing is not indicated
- There are insufficient data to recommend treatment of partners with a penis
- Assessment of partner(s) with a vagina is recommended as concordance is high (see women who have sex with women).

Follow-up
Unnecessary if symptoms resolve.

Test of cure

Not required

Retesting

If symptoms persist or recur it is recommended patients are reviewed, as it is important to confirm the diagnosis. Test for STIs, if not undertaken at first presentation as concurrent STIs are common.

Auditable outcomes
100% of symptomatic patients are treated.

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

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