

Bacterial vaginosis treatment guidelines

Also known as BV

Bacterial vaginosis is a bacterial infection caused by a change in the normal balance of vaginal bacteria.

Causes

Bacterial vaginosis (BV) is a common cause of abnormal vaginal discharge in women of childbearing age and affects 30% of women globally ([1](#)).

BV is a polymicrobial syndrome (dysbiosis) characterised by a profound change in the vaginal microbiota from a lactobacilli 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 (BVAB).

There is a rise in vaginal pH, proteolytic enzymes and volatile amines which produce the malodour.

Although there are supporting epidemiological and microbiological data, sexual transmission of BV has not been established.

There is a strong association between acquisition of BV and sexual behaviours including young age of first sex, increased numbers of sex partners, exposure to new sex partners and lack of condom use for penile-vaginal sex ([2](#)).

BVAB are present in the urethra and penile skin more often in male partners of women with BV than without, suggesting these bacteria may be exchanged during intercourse ([3-6](#)).

In women who have sex with women studies show very high concordance for BV within partnerships and an association with a range of sexual activities ([7,8](#)).

Post treatment recurrence of BV has been associated with exposure to an ongoing sex partner and lack of condom use for penile-vaginal sex ([9,10](#)).

Clinical presentation

- Malodour and/or a thin white or greyish vaginal discharge, although up to 50% of women may be asymptomatic.
- Associated with increased risk of spontaneous abortion, premature labour, chorioamnionitis, postpartum endometritis and pelvic inflammatory disease (PID). An increased risk of PID has been reported following surgical termination of pregnancy (TOP), intra-uterine device (IUD) insertion or other gynaecological instrumentation. An increased risk of BV acquisition and recurrence has been reported following use of the copper IUD ([11-12](#)). Refer to [PID treatment guidelines](#).
- BV is associated with a 2-4 fold increased risk of acquiring STIs including chlamydia, gonorrhoea, herpes simplex type 2 and HIV infection, and increases the risk of HIV transmission to male partners.

Diagnosis

Test	Site/specimen	Comments
Amsel's criteria	Vaginal swab	<p>A diagnosis is made if 3 or 4 of the following criteria are present:</p> <ol style="list-style-type: none"> 1. Clinician observed vaginal discharge - thin, white or grey, often adherent, homogeneous appearance 2. Vaginal pH of ≥ 4.5 3. The presence of "clue cells" on a Gram stain or wet preparation of high vaginal secretions 4. Positive amine (whiff) test – if you can smell the malodour on examination this can be recorded as a positive whiff test
Nugent's criteria	Vaginal swab	<p>A score of 7-10 is diagnostic of BV, and 4-6 is classified as intermediate flora</p> <p>Approximately 50% of women with intermediate flora by the Nugent method will have BV by the Amsel's method</p> <p>At MSHC we recommend using both Amsel's and Nugent's methods for the diagnosis of BV</p>

Notes

There is currently insufficient evidence to support the recommendation of routine screening for BV at the time of insertion of an intrauterine device or surgical termination of pregnancy to prevent PID or endometritis in asymptomatic women ([16-18](#), [19-23](#)) however, where feasible it is reasonable to provide screening and treatment prior to the intervention.

Copper IUDs have been associated with increased risk of BV acquisition and BV recurrence ([11-12](#)):

- The association between hormonal IUD use and BV is unclear
- If a patient using an IUD develops BV treat as recommended
- If the patient experiences recurrent BV with a copper IUD consider switching to an alternative method ([24](#))

Management

Index patient

Treatment is predominantly aimed at alleviating symptoms and recurrence

Treatment is indicated in:

- Symptomatic women
- Women undergoing an invasive upper genital tract procedure such as termination of pregnancy and insertion of IUD, where feasible, to reduce the risk of PID/endometritis.
- The benefit of this practice has not been established
- Asymptomatic women if they request treatment

Condition	Recommended	Comments

Uncomplicated BV in women who are not pregnant	<p>Metronidazole 400mg PO, twice daily for 7 days</p> <p>OR</p> <p>Clindamycin 2% intravaginal cream 5g, nightly for 7 nights (not on PBS)*</p> <p>OR</p> <p>Metronidazole gel 0.75%, one applicator (5g) intravaginally, daily for 5 days (not on PBS)</p>	<p>Metronidazole can cause nausea and the patient should be advised to have her medication with food and to avoid drinking alcohol whilst on treatment and for 48 hours after completion.</p> <p>Women should refrain from sex or recommended to use condoms consistently during treatment.</p> <p>Douching and intravaginal cleaning practices have been associated with a non-optimal vaginal microbiota and should be avoided</p>
Alternative management for uncomplicated BV in women who are not pregnant	<p>Clindamycin 300mg PO, twice daily for 7 days</p> <p>OR</p> <p>Metronidazole 2g, PO, stat*</p> <p>-</p>	<p>There is currently insufficient evidence to recommend the use of intravaginal lactic acid or vaginal probiotics, however research efforts to determine the role of non-antibiotic or adjunctive regimens in BV treatment are underway. One recent trial of a <i>Lactobacillus crispatus</i> vaginal probiotic showed a 15% improvement in cure compared to placebo when administered after antibiotics (15)</p>
Pregnant woman	<p>The same treatment options for non-pregnant women can be used in pregnancy</p>	<p>Treatment is recommended in symptomatic pregnant women to alleviate symptoms.</p> <p>Two meta-analyses of observational studies reported no significant association between metronidazole exposure and congenital malformations (25). Metronidazole is category B2 but a meta analysis has not demonstrated an association with teratogenic or mutagenic effects in neonates.</p> <p>Clindamycin is category A. Oral therapy has not been shown to be superior to topical vaginal therapy in pregnancy. Therefore, both the oral and topical regimens recommended in non-pregnant women can be used.</p>
Recurrent BV	<p>Intravaginal metronidazole 0.75% gel 5g twice per week for 4 months (27)</p> <p>OR</p> <p>Boric acid (seek specialist advice)</p>	<p>BV recurrence is common with >50% of women experiencing post-treatment recurrence within 3-12 months.</p> <p>There are limited data available to guide treatment for highly recurrent BV.</p> <p>Intravaginal boric acid regimens have also been used but have not shown sustained benefit. Boric acid can be accessed via compounding pharmacies. Seek specialist advice if required.</p>

* stat treatments are associated with higher recurrence rates of BV (14)

Sexual partners

Treatment of male sexual partners has not been recommended as 5 of 6 prior published studies indicated no benefit (13):

- However, systematic review confirmed these trials were systematically flawed and underpowered (13) and new clinical trials of male

partner treatment are underway at MSHC to determine the benefit of this intervention.

No trials of female partner treatment have been conducted to inform female partner treatment:

- However, high concordance for BV is consistently reported within female-female partnerships.
- Testing of female partners should be offered in order to detect and treat BV in the partner.

There are no published trials to determine whether the treatment of female partners improves BV cure, however treatment of BV in a female partner is commonly practiced by clinicians.

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Disclaimer

We recognise that gender identity is fluid. In our treatment guidelines, the words and language we use to describe genitals and gender are based on the sex assigned at birth.

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