

This decision support tool is effective as of February 2014. For more information or to provide feedback on this or any other decision support tool, email [certifiedpractice@crnbc.ca](mailto:certifiedpractice@crnbc.ca)

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## BACTERIAL VAGINOSIS (BV)

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### DEFINITION

An overgrowth of genital tract bacteria and a depletion of lactobacilli

### POTENTIAL CAUSES

- *Gardnerella vaginalis*
- *Prevotella*
- *Mobiluncus*
- imbalance in the vaginal flora

### PREDISPOSING RISK FACTORS

- sexually active
- unprotected vaginal intercourse
- new sexual partner
- multiple sex partners
- intrauterine device (IUD) use may be a predisposing factor
- women who have sex with women are at an increased risk of BV
- smoking is associated with an increased risk of BV
- douching
- may occur without having had sexual contact

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The DSTs are not intended to replace the RN(C)'s professional responsibility to exercise independent clinical judgment and use evidence to support competent, ethical care. The RN(C) must consult with or refer to a physician or nurse practitioner as appropriate, or whenever a course of action deviates from the DST.

## TYPICAL FINDINGS

### Sexual Health History

- abnormal change in vaginal discharge
- vaginal irritation (rare)
- vaginal odour (fishy)

### Physical Assessment

#### Females

- client reported abnormal changes in vaginal discharge
- vaginal discharge may be:
  - copious
  - homogenous
  - greyish or white colour
  - thin
- obvious abnormal vaginal odour (fishy) associated with BV with or without positive KOH whiff test
- vaginal pH greater than 4.5

### Diagnostic Tests

Full STI screening is recommended. See the *STI Assessment DST* re: screening indications for vaginal specimens.

The following are three available methods for BV diagnosis:

- Clinical management based on clinical findings and symptoms
- Nugent scoring from lab results
- Amsel's criteria—a combination of clinical findings and microscopy

The following specimens are collected from the interior vaginal wall during a speculum exam or through blind swab:

- vaginal swab for pH
- vaginal smear for clue cells and/or nugent score
- vaginal swab for KOH whiff test:

**Notes:**

1. If client is not having a speculum exam, the nurse may collect a “blind swab” by inserting the swab into the vaginal canal to collect secretions for microscopic assessment. This method can also be used to assess vaginal pH and for KOH whiff test.
2. If the client declines a physical assessment or physical assessment is not appropriate when vaginal symptoms have been indicated, clinician collected blind swab or self-collected vaginal swab may be offered as an alternative collection method.
3. The KOH whiff test involves adding 10% KOH solution (not exceeding 0.5ml) to collected vaginal secretions and briefly sniffing (1-2 seconds) the vapour to assess for an amine odour. Detection of an amine odour constitutes a positive KOH whiff test.
4. For more information on KOH Whiff testing see: [Safe Use of 10% Potassium Hydroxide in STI Screening](#) located in the BCCDC Communicable Disease (CD) Manual Chapter 5 - Sexually Transmitted Infections.

## CLINICAL EVALUATION

### Clinical Management of Bacterial Vaginosis Symptoms

The flow chart on the next page can be used for management of BV symptoms when immediate microscopic evaluation is not available and the following findings are present:

- positive KOH whiff test and/or obvious BV odour (fishy) in the absence of KOH whiff test
- pH  $\geq$  4.5
- client reported abnormal changes in vaginal discharge

**Note:** pH strips are ineffective in the presence of blood; therefore, vaginal pH cannot be assessed during menses.

### Nugent Score

Determined by lab testing of vaginal smear with three possible scoring outcomes and interpretations (see Bacterial Vaginosis Nugent Scoring Algorithm):

- negative (0-3)
- intermediate (4-6)
- positive (7-10)

## **Amsel's Criteria**

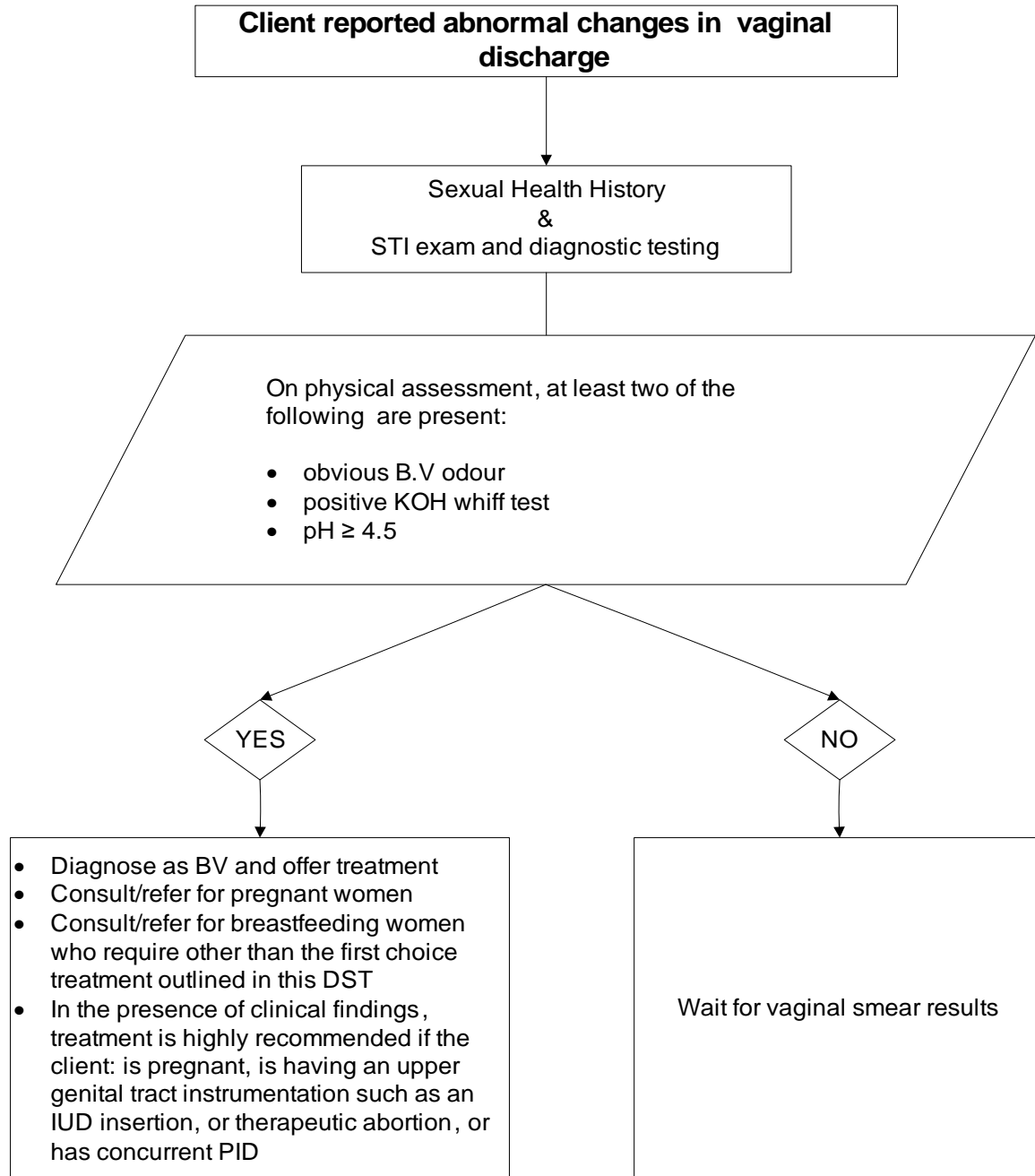
This method of diagnosis allows for onsite diagnosis of BV if immediate microscopic evaluation is available. Diagnosis for BV via Amsel's criteria includes:

- lab slide of vaginal smear result is positive for clue cells

AND 2 out of 3 of the following:

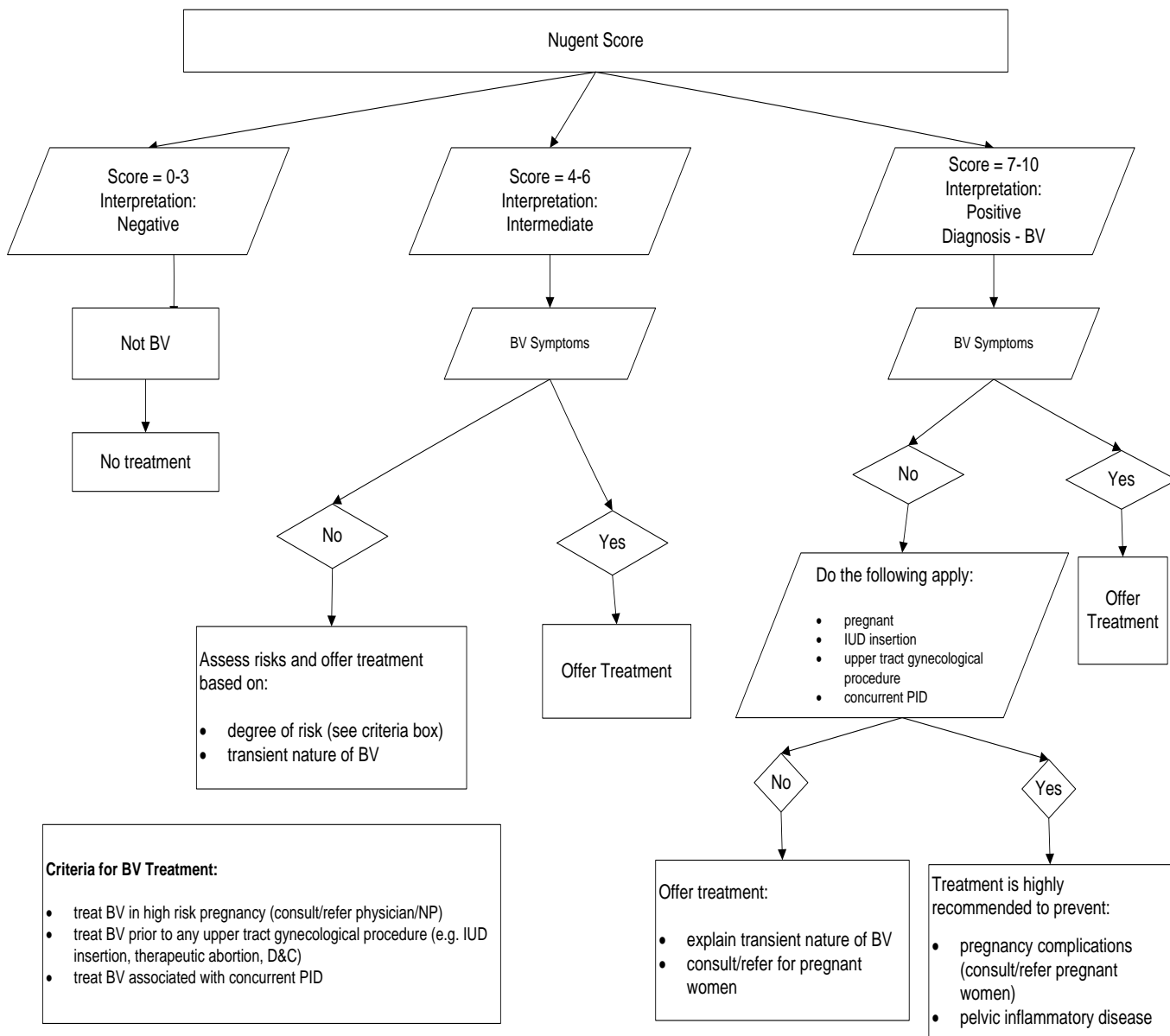
- high vaginal pH ( $\geq 4.5$ )
- presence of moderate-profuse grey-white discharge – may be thin and non-clumping
- positive KOH whiff test

### Clinical Management for Bacterial Vaginosis Symptoms in the Absence of Immediate Diagnostic Support



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### Bacterial Vaginosis Nugent Scoring



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## MANAGEMENT AND INTERVENTIONS

### Goals of Treatment

- treat infection
- prevent complications
- alleviate symptoms

## TREATMENT

### First Choice

- metronidazole 500 mg po bid for 7 days

### Second Choice

- metronidazole 2gm po in a single dose (single dose therapy has an equivalent cure rate to the 7 day therapy, but a higher relapse rate after 1 month)

**Note:** Alcohol must be avoided 12 hours pre-treatment, during treatment and 24-48 hours post-treatment with metronidazole.

## ALTERNATE TREATMENT

- Metronidazole gel 0.75%, one applicator (5g) once a day intravaginally for 5 days

OR

- Clindamycin cream 2%, one applicator (5g) intravaginally once a day for 7 days

**Note:** Intravaginal Metronidazole gel and Clindamycin cream are not included in the BCCDC Provincial STI Drug Program. RN(C)s<sup>1</sup> may need to consult with a physician or nurse practitioner to obtain a prescription if treatment is not available through the employer. Consult/refer to physician or nurse practitioner for further alternate treatments as needed.

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<sup>1</sup> Note: RN(C) is an [authorized title](#) recommended by CRNBC that refers to CRNBC-certified RNs, and is used throughout this Decision Support Tool (DST).

## **PREGNANT OR BREASTFEEDING WOMEN**

- For clients who are pregnant consult/refer to physician or nurse practitioner.
- Metronidazole 500 mg po bid for 7 days is safe to administer for women who are breastfeeding and have BV. Consult/refer for second choice or alternate treatment recommendations outlined in this DST for breastfeeding women.

## **PARTNER COUNSELLING AND REFERRAL**

- treatment is not recommended for male sexual partners for either acute or recurrent BV
- offer assessment and testing to female partners of clients diagnosed with BV. Treat as per the BV DST if female partner is diagnosed with BV through clinical assessment and/or lab testing results
- no follow-up indicated

## **POTENTIAL COMPLICATIONS**

- presence of BV increases the likelihood of HIV infection transmission
- presence of BV during an invasive procedure, e.g., IUD insertion, dilation and curettage (D&C) - has been associated with post procedure pelvic inflammatory disease (PID)
- BV may be associated with premature rupture of membranes in women with a history or previous complicated pregnancy

## **CLIENT EDUCATION**

Counsel client:

- regarding appropriate use of medications (dosage, side effects, and need for re-treatment if dosage not completed)
- regarding special precautions for taking metronidazole: avoid alcohol 12 hours prior to treatment, during treatment and 24-48 hours after treatment
- regarding vaginal flora and pH balance. Indicate that certain practices such as intra vaginal cleansing (douching) can alter vaginal flora and pH balance
- that some oral probiotics (e.g., live active bacterial cultures found in certain yogurts) provide benefits in reducing BV and maintaining balanced vaginal flora and pH
- that IUD use has been associated with BV
- that the presence of BV can increase the likelihood of HIV infection transmission



- if symptoms do not resolve with treatment, then they will require referral to physician/nurse practitioner

## **CONSULTATION AND/OR REFERRAL**

Refer to physician or nurse practitioner in the following circumstances:

- allergy to metronidazole
- inability to abstain from alcohol during treatment period and prescription for treatment required
- pregnancy
- persistent symptoms after treatment

## **DOCUMENTATION**

- BV is not reportable
- as per agency policy

## REFERENCES

For help obtaining any of the items on this list, please contact CRNBC Helen Randal Library at [circdesk@crnbc.ca](mailto:circdesk@crnbc.ca)

More recent editions of any of the items in the Reference List may have been published since this DST was published. If you have a newer version, please use it.

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