Bacterial Vaginosis – RD 4

DEFINITION

Bacterial vaginosis (BV) results from replacement of the normal bacteria in the vagina with anaerobic bacteria. BV is associated with having multiple male sex partners, female partners, sexual relationships with more than one person, a new sex partner, lack of condom use, douching, and HSV-2 seropositivity. Male circumcision reduces the risk for BV among women. BV prevalence increases during menses. Clinical diagnosis by Amsel criteria requires at least 3 of the following 4 symptoms or signs: homogenous thin discharge that smoothly coats the vaginal walls, clue cells on microscopic examination, pH of vaginal discharge >4.5 and a fishy odor of vaginal discharge noted before or after addition of 10% KOH

SUBJECTIVE

May include:
1. No symptoms
2. Recent partner history, new partners, multiple partners, etc.
3. History of douching
4. Copper-containing IUD (increased prevalence of BV)
5. Vaginal discharge
6. “Fishy” odor which is particularly noticeable following coitus
7. Introital dyspareunia or vulvar irritation

OBJECTIVE

May include:
1. Homogenous, thin, white discharge that smoothly coats the vaginal walls
2. Malodorous discharge
3. Minimal redness/irritation of vulva and vaginal walls
4. pH of vaginal fluid >4.5

LABORATORY

1. Clue cells (e.g., vaginal epithelial cells studded with adherent coccobacilli) on microscopic examination
2. Positive whiff test (a fishy odor after addition of 10% KOH)
3. Lactobacilli are usually absent
4. Other tests available include Affirm VPIII (non-CLIA waived), and the BV Blue test (CLIA waived.) A proline aminopeptidase card test has a low sensitivity and specificity, and is not recommended
5. Multiple BV NAAT’s are available for BV diagnosis among symptoms women (see CDC guidelines for a listing of these tests)

ASSESSMENT

Bacterial Vaginosis (BV)
Diagnosis with Amsel’s Criteria (at least 3 of the following are required)
- Homogeneous, thin, milk-like white/gray discharge smoothly coating vaginal walls
- Clue cells on microscopic exam
- Vaginal fluid pH >4.5
- Positive whiff test (fishy odor after addition of 10% KOH)

PLAN

1. Treatment is recommended for all symptomatic women regardless of pregnancy status.
2. Treatment is not recommended for male partners.
3. **Recommended regimens**:
   a. Metronidazole 500 mg PO 2 times/day for 7 days **OR**

   b. Metronidazole 0.75% vaginal gel one applicator full (5g) intravaginally at bedtime x 5 days
      OR
   c. Clindamycin vaginal cream 2%, 1 applicator full (5g) intravaginally at bedtime x 7 days.
4. **Alternative regimens**:
   a. Clindamycin 300 mg PO 2 times/day for 7 days **OR**
   b. Clindamycin ovules 100 mg intravaginally at bedtime for 3 days **OR**
   c. Tinidazole 2 g PO daily for 2 days (not recommended in pregnancy) **OR**
   d. Tinidazole 1 g PO daily for 5 days (not recommended in pregnancy) **OR**
   e. Secnidazole 2 g oral granules, one time dose (Secnidazole is not recommended for use during pregnancy or breastfeeding)
5. Treatment is recommended for symptomatic pregnant women. If a diagnosis of BV is made with a positive pregnancy test refer to https://www.cdc.gov/std/treatment-guidelines/STI- Guidelines-2021.pdf Pages 86-87
6. **Treatment for breastfeeding clients**: The recommended regimens may be used with breastfeeding.
   a. Although several reported case series found no evidence of metronidazole-associated adverse effects in breastfed infants, some clinicians advise deferring breastfeeding for 12–24 hours following maternal treatment with a single 2 g dose of metronidazole
   b. Tinidazole should be avoided during pregnancy/breastfeeding.
7. **Treatment – HIV infected clients**.
   a. Persons with HIV and BV should receive the same treatment as persons without HIV.
8. **Treatment option for women with persistent or recurrent BV.**
   a. Retreatment with the same recommended regimen is an acceptable approach after the first occurrence.
   b. Using a different recommended regimen can be considered.
   c. 0.75% Metronidazole gel one applicator (5g) vaginal 2x a week for 4-6 months has been shown to decrease reoccurrence.
   d. Limited data suggest the following option for recurrent BV: metronidazole or tinidazole 500 mg PO bid for 7 days; follow with boric acid 600 mg vaginally at HS for 21 days; follow with suppressive 0.75% metronidazole gel 1 applicator (5g) at HS 2x a week for 4-6 months
   e. Monthly metronidazole 2 g PO once PLUS fluconazole 150 mg PO once has been evaluated as suppressive therapy; this regimen reduced the incidence of BV and promoted colonization with normal vaginal flora.
9. Use caution with oral Metronidazole in those with hepatic dysfunction (as indicated by elevated liver function tests or hepatitis in last 6-12 months), colitis, renal disease, & seizure disorders.
10. The use of Antabuse (disulfiram) and metronidazole may cause a drug interaction resulting in acute psychosis and confusion.
11. CDC STD Treatment Guidelines 2021 state that “All women with BV should be tested for HIV and other STDs.

CLIENT EDUCATION

1. Provide education handout, review symptoms, treatment options, and medication side effects.
2. According to the 2021 CDC STD Treatment Guidelines (page 85) there are no studies providing convincing evidence of a disulfiram-like reaction with alcohol and metronidazole. Thus, refraining from alcohol use while taking metronidazole or tinidazole is unnecessary per CDC guidelines
3. Clindamycin can cause pseudomembranous colitis resulting in severe diarrhea. If symptoms occur patient should stop medication and seek immediate medical care
4. Advise to avoid intercourse during treatment OR use condoms consistently. Douching may increase the ~~in~~ risk for BV
5. Avoid using contraceptive diaphragm and/or condoms during and at least 72 hrs. after treatment with clindamycin cream or ovules as it may weaken latex or rubber products
6. Stress importance not to interrupt treatment during menses and not to use tampons during treatment
7. Review safer sex education, as appropriate

8. Recommend that client RTC if symptoms persist for re-evaluation

CONSULT / REFER TO PHYSICIAN

1. Women with history of hepatic disease, colitis, renal disease, or seizure disorders

REFERENCES

1. https://www.cdc.gov/std/treatment-guidelines/STI-Guidelines-2021.pdf
2. Cason, P., Hatcher, R. A., Cwaik, C., Edelman, A., Kowal, D., Marrazzo, J. M., Nelson, A. L., & Policar, M. S. (2025). Reproductive Tract Infections (22nd ed.), *Contraceptive Technology* (pp. 643-645). Jones & Bartlett Learning.
3. Vaginitis: Diagnosis and Treatment - American Family Physician (aafp.org) 2018