Bacterial Vaginosis
Update on Evidence-Based Care
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Bacterial vaginosis (BV) affects approximately 30% of women at some point during their reproductive years. In the United States, black women are infected with BV at three times the rate of white women. The statistical prevalence of BV is highest in black women without Hispanic heritage (50.3%) and Mexican American women (28.8%) when compared with non-Hispanic white women (22.4%).

BV was once thought to be a sexually transmitted infection, but this etiology does not explain its prevalence in women who are not sexually active. One study found BV-related organisms in approximately 33% of adolescent girls with no history of sexual activity. Other studies dispute sexually transmitted infection as a cause of BV. In this research, male partners of women who had recurrent BV were treated with clindamycin (Cleocin) and nitroimidazole agents (Flagyl). Their sexual partners showed no decrease in BV.

A separate study documented an increased incidence of BV in women in lesbian relationships. Vaginal Flora
Bacterial vaginosis is characterized by the absence of normal vaginal bacterial flora and the subsequent massive overgrowth of facultative and anaerobic bacteria. These bacteria include the primary species of Gardnerella vaginalis plus mixed anaerobes such as Mobiluncus, Bacteroides, Prevotella, Peptostreptococci, Eubacterium, Mycoplasma hominis, group B streptococci and Escherichia coli. Anaerobic bacteria can thrive within the vagina as a result of altered pH — specifically an increase in alkalinity that is directly caused by the destruction of lactobacilli.

The normal vaginal environment is dominated by lactobacilli, whose primary function is to maintain the acidic environment through production of hydrogen peroxide, lactic acid and organic acid. These byproducts of glycogen metabolism occur along with secretion of bacteriocins that inhibit the growth of many bacteria.

Clinical Pathway for Diagnosing Symptoms of Vaginal Discharge

- **Vaginal discharge**

  - Fishy or offensive odor
    - pH ≥ 4.7
    - Thin white or gray homogenous coating on vaginal walls; microscopic clue cells
    - **Bacterial vaginosis** (no vaginal culture)
  - White, curdlike
    - pH ≤ 4.5
    - Yellow–green, frothy discharge, pruritis, vaginitis, dysuria; microscopic motile trich organisms
    - **Trichomoniasis**: vaginal trich culture if microscopy is negative
  - Vulval itching, soreness, erythema, fissures, satellite lesions; microscopic pseudoohyphae or buds
  - **Candida** (no vaginal fungal culture unless wet mount negative)