



# Bacterial Vaginosis (BV) Screen

## Test Highlights

- This is a rapid, sensitive and specific test for the support of bacterial vaginosis.
- The method consists of a modified gram stain and includes a culture for *Candida* species.

## Clinical Background

Bacterial vaginosis (BV) is a syndrome resulting from a disruption of normal vaginal flora (i.e. mostly *Lactobacillus spp.*) with subsequent changes in the relative concentrations of other bacteria. The result is a depletion of *Lactobacillus spp.* and a proliferation of other potentially harmful bacteria (e.g. *Gardnerella vaginalis*, *Mobiluncus spp.*, *Mycoplasma hominis*, yeast and anaerobes). BV is associated with an increased risk of upper genital tract infections, pelvic inflammation disease (PID), or premature delivery.

The gram stain is the gold standard used to determine the relative bacterial concentrations according to microscopic bacterial types. Amsel criteria (3 out of 4) relies upon finding a thin, white, homogenous discharge, “clue cells”, lower vaginal pH, and/or a fishy odor using 10% KOH. Culture is sensitive for the recovery of *Gardnerella vaginalis*, but is not recommended because it is highly non-specific (i.e. *G. vaginalis* can be recovered in 58% of women without BV).

The BV screen uses the gram stain and Nugent criteria where a predominance of *Gardnerella vaginalis* and/or *Mobiluncus spp.* with a reduction or absence of *Lactobacillus spp.* is easily seen microscopically. This vaginal BV screen using Nugent scoring is objective and reproducible. The test sensitivity is 62% to 100% and the positive predictive value is 76% to 100%. The BV screen offers a

quantitative gram stain using Nugent criteria that is both highly sensitive and specific for the rapid support of a BV diagnosis.

## Indications for Ordering

Considered a clinically useful test in pregnancy for BV that is more sensitive than routine culture.

## Limitations

This test is intended for use with vaginal specimens.

## Methodology

A modified, quantitative gram stain, Nugent scoring, and a vaginal culture for yeast (e.g. *Candida spp.*) provides additional sensitivity over the gram stain alone.

## Ordering Information

Test Name	Test Code
Bacterial Vaginosis (BV) Screen	5670

**Specimen Requirements:** Vaginal swab or discharge

**Turn-Around-Time:** 2 days

## Specimen Stability

24-48 hours in bacterial transport media (e.g. BBL CultureSwab Plus or Copan ESwab).

**CPT Code:** 87205 and 87081

## References

1. <http://www.cdc.gov/std/treatment/2006/vaginal-discharge.htm#vagdis2>
2. Hillier SL “Diagnostic microbiology of bacterial vaginosis.” *American Journal of Obstetrics and Gynecology*, Aug 1993.
3. Katz. *Comprehensive Gynecology*. 5th ed. 2007.