

## Overview

### Useful For

Supporting the diagnosis of bacterial vaginosis

### Method Name

Conventional Gram Stain Procedure and Nugent Scoring System

### NY State Available

Yes

## Specimen

### Specimen Type

Varies

### Specimen Required

#### Preferred:

**Specimen Type:** Vaginal swab

**Supplies:** Culturette (BBL Culture Swab) (T092)

**Container/Tube:** Culturette swab (Dacron or rayon swab with aluminum or plastic shaft with either Stuart or Amies medium)

**Specimen Volume:** Entire collection

#### Specimen Stability Information:

ESwab: Refrigerated (preferred) 7 days/Ambient 7 days

Culturette Swab: Ambient (preferred) 7 days/Refrigerated 7 days

#### Acceptable:

**Specimen Type:** Prepared microscope slide

**Source:** Vaginal swab

**Supplies:** Culturette (BBL Culture Swab) (T092)

**Collection Container/Tube:** Culturette swab (Dacron or rayon swab with aluminum or plastic shaft with either Stuart or Amies medium)

**Submission Container/Tube:** Slide container

**Specimen Volume:** Slide

**Collection Instructions:** Apply original sample to surface of standard microscope slide using appropriate application method (determined by consistency of specimen type) to assure adequate transfer of specimen onto slide. Allow specimen to dry and then methanol or heat-fix the slide. Place in slide container for transport.

### Forms

[If not ordering electronically, complete, print, and send a Microbiology Test Request](#) (T244) with the specimen.

Reject Due To

Dry swab	Reject
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Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Varies	Varies		

Clinical & Interpretive

Clinical Information

Bacterial vaginosis (BV) occurs when normal vaginal/urogenital microbiota (predominance of *Lactobacillus* species) is replaced by other bacteria (*Gardnerella vaginalis*, *Atopobium vaginae*, etc). Clinical signs of BV (Amsel's criteria) include increased vaginal pH (>4.5); thin, gray, homogeneous discharge; fishy malodor enhanced by adding potassium hydroxide; and clue cells (epithelial cells covered with bacteria that obliterate the cell border). The standard scoring system termed the "Nugent score" is a technique for assessing bacterial vaginosis using microscopic examination of a Gram-stained smear of vaginal discharge.

Reference Values

One of the 3 following reports dependent on the weighted sum balance of *Lactobacillus*, *Gardnerella/Bacteroides*, and *Mobiluncus* species:

1. Consistent with normal bacterial vaginal flora.
2. Altered vaginal flora not consistent with bacterial vaginosis. This frequently represents a transitional stage. If signs or symptoms persist, repeat testing is warranted.
3. Consistent with bacterial vaginosis.

Interpretation

Assessment of a Gram-stained slide using the Nugent score has replaced culture as the preferred test to diagnose bacterial vaginosis.(1) While *Gardnerella* is the most common anaerobe found in bacterial vaginosis, other anaerobic organisms are often present along with a decrease in the amount of normal microbiota (eg, *Lactobacillus* species).

This system uses a 0- to 4-point scale to calculate the weighted sum of the following 3 bacterial morphotypes: *Lactobacillus*, *Gardnerella/Bacteroides*, and *Mobiluncus* species. A total score of greater than 6 is considered abnormal, a total score of 4 to 6 is considered a transitional stage, and a total score of 0 to 3 is considered normal. Clue cells and yeast are also reported if present.

Cautions

This scored Gram stain for diagnosis of bacterial vaginosis should be used only for women in childbearing years or postmenopausal women on estrogen replacement therapy.

Clinical Reference

1. College of American Pathologists (CAP) Microbiology checklist: Bacterial Vaginosis-Evaluation of a criterion-based Gram stain is used for the microscopic diagnosis of bacterial vaginosis. CAP; 2021:35

Performance

Method Description

A Gram stain with scoring of the microbial morphotypes, the Nugent scoring system, is used to evaluate the vaginal/urogenital microbiota from the Gram-stained slide. This system uses a 0- to 4-point scale to calculate the weighted sum of the following 3 bacterial morphotypes: *Lactobacillus*, *Gardnerella/Bacteroides*, and *Mobiluncus* species.(Chan WW: Gram stain procedure-Reporting Gram-stained vaginal smears to diagnose bacterial vaginosis and vaginitis. In: Leber AL, ed. ASM Clinical Microbiology Procedures Handbook. 4th ed. Press; 2016:3.2 [1-3])

PDF Report

No

Day(s) Performed

Monday through Sunday

Report Available

Same day/1 day

Specimen Retention Time

Gram-stained slides: 7 days

Performing Laboratory Location

Rochester

Fees & Codes

Fees

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact [Customer Service](#).

Test Classification

This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information

87205

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
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GSBV	Gram Stain for Bacterial Vaginosis	14361-0
Result ID	Test Result Name	Result LOINC® Value
GSBV	Gram Stain for Bacterial Vaginosis	14361-0