

**AR** P<sup>\*</sup>LABORATORIES

Last Literature Review: May 2021 Last Update: January 2024

The most common causes of infectious vaginitis are bacterial vaginosis (BV), candida vaginitis (CV), and trichomoniasis (TV). Vaginitis is one of the most frequent reasons women seek medical care, with an estimated 70% of patients diagnosed with bacterial vaginosis, CV/vulvovaginal candidiasis (VVC), or trichomoniases (sexually transmitted).<sup>1</sup> Women with trichomoniasis or bacterial vaginosis are at a greater risk of acquiring HIV and other sexually transmitted infections such as chlamydia, gonorrhea, and herpes simplex virus (HSV). Premature deliveries and infants with low birth weight have been associated with symptomatic bacterial vaginosis and trichomoniasis in pregnant women. Diagnosis can be especially complicated due to the prevalence of coinfections.

# **Disease Overview**

#### Incidence

BV is the most common cause of vulvovaginitis in women ages 15-44, implicated in 40-50% of vaginitis cases. The prevalence in the United States is estimated to be 21.2 million (29.2%) among women ages 14-49.

CV or VVC accounts for 20% to 25% of cases in the United States, while TV accounts for 15% to 20%.<sup>2</sup>

## Symptoms

Typical symptoms of infectious vaginitis include pruritus, vaginal soreness, dyspareunia, external dysuria, odor, and abnormal vaginal discharge. These symptoms may be nonspecific.

# **Test Interpretation**

Sensitivity and Specificity <sup>a</sup>		
Component	Sensitivity	Specificity
BV	95.0%	89.6%
Candida species group	91.7%	94.9%
C. glabrata	84.7%	99.1%
T. vaginalis	96.5%	95.1%

<sup>a</sup>Based on a multicenter trial study using clinician-collected specimens. Source: Hologic, Aptima BV assay<sup>3</sup>; Hologic, Aptima CV/TV assay<sup>4</sup>

## Featured ARUP Testing

#### Vaginitis Panel by TMA 3002581

Method: Qualitative Transcription-Mediated Amplification

- Aids in the diagnosis of bacterial vaginosis, vulvovaginal candidiasis, and trichomoniasis
- Test detects Lactobacillus (L. gasseri, L. crispatus, and L. jensenii), Gardnerella vaginalis, Atopobium vaginae, Trichomonas vaginalis, Candida glabrata, and other Candida species (C. albicans, C. parapsilosis, C. dubliniensis, and C. tropicalis)

Additional testing for infectious vaginitis is available; refer to the Laboratory Test Directory for test options.

Results		
Component	Results	
BV	Positive	
	Negative	
Candida species group	Positive	
	Negative	
C. glabrata	Positive	
	Negative	
T. vaginalis	Positive	
	Negative	

### Limitations

- Bacterial species and *Candida* species targeted by the vaginitis assay may comprise part of the normal microbiome for a significant number of women; a positive result should be interpreted in conjunction with other clinical data available to the clinician.<sup>3,4</sup>
- Collection and testing of patient-collected vaginal swab specimens with the vaginitis assay is not intended to replace clinical examination.<sup>3,4</sup>
- A positive result is indicative of the presence of target RNA and does not necessarily indicate the presence of viable organisms.<sup>3,4</sup>
- This assay does not differentiate among organisms in the Candida species group.
- This assay does not report individual organisms causative of bacterial vaginosis.
- A negative result does not preclude a possible infection.<sup>3,4</sup>
- Performance of the assay has not been evaluated in women younger than 14 years of age.<sup>3,4</sup>
- This test is intended for medical purposes only and is not valid for forensic purposes.

#### References

- 1. Mills BB. Vaginitis: beyond the basics. Obstet Gynecol Clin North Am. 2017;44(2):159-177.
- 2. Paladine HL, Desai UA. Vaginitis: diagnosis and treatment. Am Fam Physician. 2018;97(5):321-329.
- 3. Hologic. Aptima BV assay package insert. Accessed May 2021.
- 4. Hologic. Aptima CV/TV assay package insert. Accessed May 2021.

# **Related Information**

Vaginitis - Bacterial Vaginosis, Vulvovaginal Candidiasis, and Trichomoniasis Sexually Transmitted Infections Herpes Simplex Virus - HSV Human Immunodeficiency Virus - HIV

ARUP Laboratories is a nonprofit enterprise of the University of Utah and its Department of Pathology. 500 Chipeta Way, Salt Lake City, UT 84108 (800) 522-2787 | (801) 583-2787 | aruplab.com | arupconsult.com

© 2024 ARUP Laboratories. All Rights Reserved.

Client Services - (800) 522-2787