

Vulvovaginitis

Revised 3-99

Vulvovaginitis is caused by *Candida albicans* and other *Candida* species, *Trichomonas vaginalis*, and a syndrome (bacterial vaginosis) in which the normal predominance of lactobacilli has been replaced by a predominance of anaerobic gram-negative bacilli and curved rods. Two or more of these infections may coexist so that the presenting signs and symptoms may not always be typical.

Diagnosis is based in part on the presenting signs and symptoms, the physical examination, the character of the discharge, microscopy, and culture.

The normal vaginal flora is highly diverse and consists predominantly of lactobacilli, corynebacteria, coagulase-negative staphylococci, viridans streptococci, peptostreptococci, and enterococci and, to a lesser or more variable extent, hemolytic streptococci (especially group B), enteric bacilli, anaerobic gram-negative bacilli, and yeasts. From 50-90% of sexually active, asymptomatic women are colonized with *Gardnerella vaginalis*. Another 3-10% are colonized with *Staphylococcus aureus*. Because of the complexity and diversity of the normal vaginal flora, a request for "general" or "miscellaneous" culture or culture for *Gardnerella vaginalis* is non-diagnostic and is not performed in this laboratory. In fact, antibiotic treatment of any component of the normal vaginal flora may actually lead to over growth by *Candida* species and candidal vulvovaginitis.

Diagnostic approaches to vulvovaginitis include simple office procedures such as testing the vaginal secretions for pH and with KOH and microscopy. Studies have shown the accuracy and sensitivity of these tests is highly observer-dependent.

As an alternative to office testing, swabs or vaginal secretions may be sent to the laboratory with specific requests for (1) a scored Gram stain for bacterial vaginosis; (2) microscopic examination or culture screen for *Candida*; and/or (3) microscopic examination, culture if negative, for trichomonads or culture for trichomonads. Culture for trichomonads (e.g. In Pouch™ TV) has been shown to be a more sensitive test especially where prolonged transport time and/or inexperienced microscopists are an issue. The scored Gram stain assesses the relative proportions of gram-positive bacilli resembling lactobacilli and gram-negative bacilli and curved rods. If lactobacilli are predominant, the laboratory will report that the findings are not consistent with a diagnosis of bacterial vaginosis. If gram-negative bacilli and curved rods are predominant, the laboratory will report that the findings are consistent with a diagnosis of bacterial vaginosis. And intermediate score (neither morphotype predominant) is reported as indeterminate. A follow-up examination may be indicated in such instances. Additionally in children, usually under the age of 6, Group A Strep has been a cause of vaginitis and in these patients we will look for this organism and report its presence.

SUBMITTING SPECIMENS:

1. Please send one swab for each test request. For example, if 3 tests are requested, send 3 vaginal swabs to the laboratory
2. If transporting specimens for *Trichomonas* outside your own facility, please inoculate to our culture system, the In Pouch™ TV, immediately and transport at room temperature. (Please contact the laboratory to obtain kit.)

(continue on reverse)

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