Genital Ulcer Disease Panel

Last Literature Review: March 2023 Last Update: October 2023

There are several diseases associated with genital ulcers. This group of diseases, often referred to as genital ulcer diseases (GUDs), includes genital herpes simplex virus (HSV) infection, syphilis, lymphogranuloma venereum (LGV), and chancroid. GUDs are usually sexually transmitted and often have similar presentations, making clinical diagnosis difficult. The CDC recommends that all persons who have genital, anal, or perianal ulcers should be evaluated using laboratory testing to determine a definitive diagnosis.[1] Proper diagnosis is important because treatment and management strategies vary based on the causative agent.

Featured ARUP Testing

Genital Ulcer Disease Panel by PCR 3005674

Method: Qualitative Polymerase Chain Reaction (PCR)

Aids in the diagnosis of genital ulcer disease by detection of HSV-1, HSV-2, *Treponema pallidum*, *Chlamydia trachomatis* L serovar, and *Haemophilus ducreyi*

Disease Overview

Genital HSV is the most common GUD in the United States, with HSV-2 infections making up the majority of HSV cases. The next most common GUD is syphilis. LGV and chancroid are less common but are also associated with genital ulcers. The prevalence of these diseases varies by population and geographic area. Infection by more than one etiologic agent is possible.[1]

Genital Ulcer Disease	Causative Agent
Genital herpes[a]	HSV-1 and HSV-2 (most common)
Syphilis[b]	*Treponema pallidum*
Chancroid	*Haemophilus ducreyi*
LGV	*Chlamydia trachomatis* (serovars L1, L2, or L3)

[a]Refer to the Herpes Simplex Virus - HSV topic for detailed information on HSV infection.

[b]Refer to the Treponema pallidum - Syphilis topic for detailed information on T. pallidum infection.

Test Interpretation

Analytic Sensitivity

Infection	Limit of Detection by Collection Type (Copies/mL)
HSV-1	Aptima collection kit: 80 Viral transport media: 80
HSV-2	Aptima collection kit: 320 Viral transport media: 320
T. pallidum	Aptima collection kit: 80 Viral transport media: 80
H. ducreyi	Aptima collection kit: 80 Viral transport media: 320

C. trachomatis L serovar	Aptima collection kit: 320 Viral transport media: 320

Analytic Specificity

No cross-reactivity with *Bacteroides fragilis*, *Candida albicans*, *C. trachomatis* H serovar, *C. trachomatis* I serovar, cytomegalovirus, *Escherichia coli*, *Gardnerella vaginalis*, *Mycoplasma genitalium*, *M. hominis*, *Neisseria gonorrhoeae*, *Staphylococcus aureus*, *Treponema denticola*, *T. medium*, *Trichomonas vaginalis*, *Ureaplasma parvum*, varicella-zoster virus

Results

Qualitative results are provided for each component:

- A positive result will be reported as “Detected.”
- A negative result will be reported as “Not Detected.”

Limitations

A negative result does not rule out the presence of PCR inhibitors in the patient specimen or test-specific nucleic acid in concentrations below this assay’s level of detection.

References

1. Centers for Disease Control and Prevention. Diseases characterized by genital, anal, or perianal ulcers. Reviewed Jul 2021; accessed Mar 2023.

Related Information

Sexually Transmitted Infections
Herpes Simplex Virus - HSV
Treponema pallidum - Syphilis

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