STI TRENDS:

Genital Lesion Pathogen Positivity Report

July 2025

Genital lesions are a common clinical concern in the United States but can be difficult to diagnose off history and exam alone. While some pathogens remain consistently prevalent, others are rare but clinically significant. This report provides a snapshot of pathogen positivity rates observed from our genital lesion panel from January through June 2025, offering insight into current trends that may impact clinical decision-making for the patient with an undifferentiated genital lesion.

1. Chlamydia trachomatis

(0.6% positivity rate)

HealthTrackRx had a 0.6% positivity rate for Chlamydia trachomatis on our genital lesion panel. Although it doesn't typically present with genital ulcers, Chlamydia trachomatis can cause lymphogranuloma venereum, which can present with a small, painless, transient genital ulcer or papule at the site of inoculation.[1] The CDC recommends Doxycycline 100 mg twice a day for seven days as the first-line treatment for Chlamydia trachomatis.[1]

2. Haemophilus ducreyi (chancroid)

(0% positivity)

From January to June 2025, HealthTrackRx had only one positive case for Haemophilus decreyi, the causative agent of a chancroid. The CDC does note that while Haemophilus ducreyi is now rare in the United States, it remains an important consideration in the differential diagnosis of genital ulcer disease, especially in patients with epidemiologic risk factors or travel to endemic regions.[2] The CDC recommends azithromycin 1g orally in a single dose, ceftriaxone 250 mg intramuscularly in a single dose, ciprofloxacin 500 mg orally twice daily for 3 days, or erythromycin base 500 mg orally three times daily for seven days as first-line treatment options for chancroid.[2]

3. Treponema pallidum (Syphilis)

(0.8% positivity)

A re-emerging STI, primary syphilis can present as a painless ulcer (chancre). At HealthTrackRx, Syphilis had a 0.8% positivity rate via genital lesion collection. A painless ulcer in a sexually active patient should always prompt syphilis testing. Many cases are co-infected with HIV or other STIs.[3,4] The CDC recommends benzathine penicillin G 2.4 million units intramuscularly in a single dose as the first-line treatment for primary, secondary, and early latent syphilis in adults.[5]

4. Herpes Simplex Virus Type 1 (HSV-1)

(18.5% positivity)

HSV-1 is increasingly associated with genital infections due to oral-genital contact, especially among young, sexually active individuals. While it is often recurrent, it is typically less severe than Herpes Simplex Virus Type 2 (HSV-2).[6] While there is no definitive cure for HSV-1, suppressive treatment is available for outbreaks. The recommended treatment for genital HSV Type 1 and Type 2 infections is systemic antiviral therapy with one of three agents: acyclovir, valacyclovir, or famciclovir.[6]

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5. Herpes Simplex Virus Type 2 (HSV-2)

(15.7% positivity)

HSV-2 is the classic cause of recurrent genital herpes, characterized by painful vesicular or ulcerative lesions.[6] From January to June 2025, HealthTrackRx had a 15.7% positivity rate for HSV-2 on our genital lesion panel. While there is no definitive cure for HSV-1, suppressive treatment is available for outbreaks. The recommended treatment for genital HSV Type 1 and Type 2 infections is systemic antiviral therapy with one of three agents: acyclovir, valacyclovir, or famciclovir.[6]

6. Monkeypox (Mpox)

(0.3% positivity)

HealthTrackRx had a 0.3% positivity rate for Mpox, a poxvirus with known sexual transmission, particularly in men who have sex with men (MSM). Lesions can mimic HSV or syphilis, so it is an important diagnostic consideration with a patient presenting with an undifferentiated genital lesion.[7] While most cases of Mpox are self-limited and require only supportive care, tecovirimat is the preferred antiviral for patients with severe disease, those at risk for severe disease (such as immunocompromised individuals, children, pregnant or breastfeeding women), or with lesions in anatomically sensitive sites (e.g., eyes, genitals, oropharynx).[8]

7. Varicella Zoster Virus (Human herpesvirus-3)

(2.2% positivity)

While Varicella Zoster typically causes shingles, it can affect the genital area in dermatomal distribution, especially in immunocompromised patients. Varicella Zoster involving genital dermatomes accounts for approximately 2–3% of viral genital lesions, and is often underrecognized or misdiagnosed as an HSV infection.[9] The preferred regimens are valacyclovir 1,000 mg orally three times daily for 7–10 days, famciclovir 500 mg orally three times daily for 7–10 days, or acyclovir 800 mg orally five times daily for 7–10 days.[10]

References

1. Tuddenham S, Hamill MM, Ghanem KG. Diagnosis and Treatment of Sexually Transmitted Infections: A Review. JAMA. 2022;327(2):161–172. doi:10.1001/jama.2021.23487
2. Centers for Disease Control and Prevention. (n.d.-b). Sex and travel. Centers for Disease Control and Prevention. https://www.cdc.gov/yellow-book/hcp/travel-for-work-other/sex-and-travel.html
3. Dionne-Odom, J., Workowski, K., Perlowski, C., Taylor, S. N., Mayer, K. H., McNeil, C. J., Hamill, M. M., Dombrowski, J. C., Batteiger, T. A., Sena, A. C., Wiesenfeld, H. C., Newman, L., & Hook, E. W., 3rd (2022). Coinfection With Chlamydial and Gonorrheal Infection Among US Adults With Early Syphilis. Sexually transmitted diseases, 49(8), e87–e89. https://doi.org/10.1097/OLQ.0000000000001605
4. Ghanem, K. G., Ram, S., & Rice, P. A. (2020). The Modern Epidemic of Syphilis. The New England journal of medicine, 382(9), 845–854. https://doi.org/10.1056/NEJMra1901593
5. Workowski, K. A., Bachmann, L. H., Chan, P. A., Johnston, C. M., Muzny, C. A., Park, I., Reno, H., Zenilman, J. M., & Bolan, G. A. (2021). Sexually Transmitted Infections Treatment Guidelines, 2021. MMWR. Recommendations and reports : Morbidity and mortality weekly report. Recommendations and reports, 70(4), 1–187. https://doi.org/10.15585/mmwr.rr7004a1
6. Gnann, J. W., & Whitley, R. J. (2016a). Genital herpes. New England Journal of Medicine, 375(7), 666–674. https://doi.org/10.1056/nejmcp1603178
7. Titanji BK, Hazra A, Zucker J. Mpox Clinical Presentation, Diagnostic Approaches, and Treatment Strategies: A Review. JAMA. 2024;332(19):1652–1662. doi:10.1001/jama.2024.21091
8. O'Laughlin, K., Tobolowsky, F. A., Elmor, R., Overton, R., O'Connor, S. M., Damon, I. K., Petersen, B. W., Rao, A. K., Chatham-Stephens, K., Yu, P., Yu, Y., & CDC Monkeypox Tecovirimat Data Abstraction Team (2022). Clinical Use of Tecovirimat (Tpoxx) for Treatment of Monkeypox Under an Investigational New Drug Protocol - United States, May-August 2022. MMWR. Morbidity and mortality weekly report, 71(37), 1190–1195. https://doi.org/10.15585/mmwr.mm7137e1
9. Magdaleno-Tapial, J., Hernández-Bel, P., Ortiz-Salvador, J. M., López-Martí, C., Martínez-Doménech, Á., García-Legaz-Martínez, M., & Pérez-Ferriols, A. (2022). Genital Herpes Zoster: A Rare Location That Can Mimic Genital Herpes. Sexually transmitted diseases, 49(1), e34–e36. https://doi.org/10.1097/OLQ.0000000000001465
10. Whitley R. J. (1992). Therapeutic approaches to varicella-zoster virus infections. The Journal of infectious diseases, 166 Suppl 1, S51–S57. https://doi.org/10.1093/infdis/166.supplement_1.s51