# New Molecular Assay for Direct Detection of HSV 1&2/VZV in Cutaneous/Mucocutaneous Specimens

Effective June 19, 2017 the Microbiology Department of Laboratory Alliance of Central New York will be offering a new molecular, multiplex assay for the direct detection of herpes simplex virus types 1 and 2 as well as varicella-zoster virus from active cutaneous and/or mucocutaneous lesions. This new assay, called the HSV/VZV molecular assay, tests for all three viruses simultaneously from a single specimen and will be replacing our previously used multiplex, PCR assay.

## Clinical Significance

Herpes simplex virus types 1 and 2 (HSV-1 and HSV-2) can cause human infections in a variety of cutaneous and mucocutaneous sites producing ulcerative lesions. These ulcerative lesions result from either a primary viral infection or the reactivation of a dormant HSV from a past infection. HSV-1 and HSV-2 can cause both oral and genital infection and are no longer associated with causing infections at any specific anatomic site.

Varicella-zoster virus (VZV), also known as human herpes virus 3, is the cause of chickenpox or varicella which, on rare occasions, may cause complications of encephalitis or pneumonia. Once a person has recovered from chickenpox, VZV remains dormant in the body but can reactivate in 10 to 20% of patients to cause shingles or zoster. It is noteworthy that HSV 1&2 and VZV are closely related viruses that produce different diseases but whose clinical presentation may be indistinguishable, leading to misdiagnosis if no confirmatory laboratory tests are performed. Cultural studies have shown that 5 to 10% of ulcerative lesions thought to be caused by HSV-1 or HSV-2 were, in fact, infections caused by VZV. The new HSV 1&2/VZV molecular assay will reliably screen for all three viruses from one specimen collected from a cutaneous or mucocutaneous site thereby eliminating the possibility of misdiagnosis. **NOTE**: The HSV/VZV Molecular assay is not intended for use on cerebrospinal fluid specimens or as an aid in the diagnosis of HSV or VZV central nervous system infections.

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| **Test:** | HSV/VZV Molecular |
| **Test Code:** | HVZMC |
| **Method:** | Helicase-Dependent Amplification (HDA) |
| **Specimen Requirement:** | Cutaneous or mucocutaneous specimens collected on Dacron or flocked swabs in Universal Transport Medium (UTM) or M4. |
| **Remarks:** | Neonatal screen (NP, rectal, eye, mouth): see Herpes Simplex by PCR. |
| **Transport & Stability:** | Refrigerated: 72 hours (Preferred); Frozen: 7 days. |
| **Unacceptable Conditions:** | Calcium alginate swabs should not be used. Wooden shaft swabs are unacceptable. Not acceptable for Neonatal screen (NP, rectal, eye, mouth). Transport medium other than UTM or M4. |
| ***Schedule of Testing:*** | *Monday – Friday, 6 a.m. to 4 p.m.* |
| ***CPT4 Code:*** | *87801* |
| ***Billing Code:*** | *3010456* |

**References:**


1. Brugha, R. et al. 1997. "Genital herpes infection: a review". *Int. J. Epidemiol.* 26:698-709.
2. Roberts, C. 2005. "Genital herpes in young adults: changing sexual behaviors, epidemiology and management". *Herpes*. 12:10-14.
3. Koh, M.J. et al. 2008. "Zosteriform herpes simplex". *Singapore Med. J.* 49:59-60.
4. Granato, P.A. et al. 2016. The unexpected detection of varicella-zoster virus in genital specimens using the Lyra Direct HSV 1+2/VZV assay. J. Clin. Virol. 84:87-89.


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