LABORATORY ALLIANCE of Central New York, LLC

Multiplex PCR Assay for Direct Detection of HSV 1&2/VZV in Cutaneous/Mucocutaneous Specimens

Effective October 20, 2014 the Microbiology Department of Laboratory Alliance of Central New York will be offering a new multiplex PCR 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 multiplex assay, called the HSV/VZV PCR assay, tests for all three viruses simultaneously from a single specimen and will be replacing our less sensitive and more time-consuming shell vial cultural methods.

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 multiplex PCR 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 PCR 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.

Test:	HSV 1 + 2/Varicella-zoster by PCR (HSV/VZV PCR)
Test Code:	HVZPCR
Method:	Multiplex Real-time PCR
Specimen Requirement:	Cutaneous or mucocutaneous specimens collected on Dacron or flocked swabs in Universal Transport Medium (UTM) or M4
Unacceptable Specimens:	Any swab other than Dacron or flocked swabs and any transport medium other than UTM or M4
Storage and Transport:	Store refrigerated at 2-8ºC and transported within 72 hours
Schedule of Testing:	Monday – Friday, 6 a.m. to 4 p.m.
CPT4 Code:	87529 x 2, 87801
Billing Code:	3010442

If you have any questions or concerns regarding this test service, please contact Mr. Russell Rawling, Microbiology Manager, at 315-410-7060.

References:

Brugha, R. et al. 1997. "Genital herpes infection: a review". *Int. J. Epidemiol.* 26:698-709.

Roberts, C. 2005. "Genital herpes in young adults: changing sexual behaviors, epidemiology and management". *Herpes*. 12:10-14.

Koh, M.J. et al. 2008. "Zosteriform herpes simplex". *Singapore Med. J.* 49:59-60.

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