



LABORATORY ALLIANCE of Central New York, LLC

Multiplex Real Time PCR Assay for Influenza A, Influenza B and Respiratory Syncytial Virus to Replace Viral Culture for Respiratory Viruses

Effective November 16, 2009 the Microbiology department of Laboratory Alliance of Central New York will begin offering a multiplex real time PCR (RT-PCR) assay for the simultaneous detection of influenza A, influenza B and respiratory syncytial virus (RSV) in nasopharyngeal samples that test negative by the rapid antigen assay. This method will replace the rapid shell-vial assay currently used. This service offers significant advantages over existing technologies by providing a highly sensitive method for detecting three serious, potentially life-threatening, viral respiratory pathogens with a decreased turn-around-time as compared to shell-vial culture.

Clinical Significance:

Because antiviral medicines are most effective when administered within the first 48 hours of symptom onset, it is important to have a test that is both sensitive and rapid. Traditional methods, particularly for the detection of RSV and influenza A and influenza B viruses, involve the use of direct specimen tests and/or virus culture. The direct specimen tests usually involve the use of enzyme immunoassay (EIA) or direct fluorescent antibody (DFA) methods. Such tests provide rapid results but suffer from poor sensitivity. On the other hand, viral culture methods provide improved sensitivity but may require several days before results are available.

Recently, a multiplex RT-PCR test has been FDA approved for the detection of RSV and influenza A and influenza B viruses directly in nasopharyngeal samples. This new test provides for reliable results. Importantly, scientific comparative evaluations of this new assay have shown conclusively that it is 20 to 40% more sensitive for detecting RSV and influenza A/B viruses than conventional methods. As such, the in-house performance of this multiplex RT-PCR assay will provide timely results within 24-48 hours of specimen receipt using one of the most sensitive and reliable methods that is currently available.

Test Code: RESPCR

Method: Multiplex Real-Time PCR (RT-PCR)

Specimen Requirements: **NP Swab in Universal Transport Media (UTM)**

Unacceptable Conditions: Any other specimen type other than a nasopharyngeal (NP) swab are NOT acceptable for this test.

Stability: 72 hours at 2-8 degrees Celsius

Storage and Transport: Transport and store at 2-8 C. May be stored for up to 72 hours.

Schedule of Testing: Monday - Saturday

CPT Code: 87798 x 3

Billing Code: 3010362

For more information: For questions or concerns regarding this test service, please contact Mr. Russell Rawling, Microbiology Manager at 315-470-7060.