LABORATORY TEST FACT SHEET

TEST: ENTEROVIRUS PCR

TEST DESCRIPTION
Enterovirus PCR is a reverse-transcription polymerase reaction (RT-PCR) test designed to detect the enterovirus group. However, due to homology of the ribonucleic acid (RNA) sequences of certain rhinovirus types, the Enterovirus PCR assay may produce a positive signal for certain rhinoviruses, and possibly some parechoviruses.

Enteroviruses (designated name because they replicate in the human GI tract) are from the same family as common cold viruses (rhinoviruses). They cause a variety of illness including respiratory infections, hand, foot, and mouth disease, and viral meningitis every spring through fall. The EVD68 strain causes respiratory infections in patients; those with asthma experience more severe symptoms. A small proportion of children experience nervous system effects. It is expected that this assay will detect Enterovirus 71, an agent associated with outbreaks of severe neurologic illness in the Asia-Pacific region.

Typical symptoms of the virus are runny nose, coughing, wheezing, fever, and other symptoms that are consistent with a common cold. In more severe cases, children have shortness of breath and difficulty breathing.

Sensitivity and Specificity
Based on reports of similar RT-PCR assays, the clinical sensitivity of the assay will vary according to the specimen type: 70-80% for CSF and 85-100% for respiratory specimens.

Based on reports of similar RT-PCR assays, it is expected that certain rhinoviruses and parechoviruses may elicit a positive signal.

SPECIMENS ACCEPTED FOR TESTING
1. Respiratory samples (nasopharyngeal swabs, tracheal aspirates, bronchial alveolar lavage) and CSF
   a. Swab specimens should be placed in viral transport medium (VTM).

Storage and Transport temperature: Transport in VTM at 4°C within 72 hours. Freeze at -20°C or lower if the specimen is to be stored for longer periods.

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