Diatherix | Eurofins Clinical Diagnostics



TECHNICAL BULLETIN: Enterovirus D68 is detected within the Enterovirus group assay included in multiple TEM-PCR™ Panels: FirstPlex Pediatric Respiratory, Pharyngitis, Respiratory Infection, Viral Respiratory

Diatherix has confirmed and successfully validated the detection of the emerging pathogen Enterovirus EV-D68. The sensitivity of the assay for the EV-D68 strain is as low as 10 plaque forming units per milliliter of respiratory secretions. The EV-D68 virus produces symptoms of a 'summer cold' but may be more intense in certain children. The summer cold is typically caused by a member of the Enterovirus group. The detection rate for the Enterovirus group in children under 18 years old on the Diatherix panels in 2013 was 1,404 on 7,451 panels (18.8%) and in 2014 it was 3,971 on 12,973 panels (30.6%).

There are more than 100 types of Enteroviruses that cause about 10 to 15 million infections in the United States each year (CDC MMWR). The Enterovirus group are common inhabitants of the intestinal tract and are often spread to other parts of the body by hand to mouth contact. Hand washing should be emphasized in households where children are infected. The season for the summer flu will typically peak in September or as the summer ends and the fall season begins.

The infection typically begins like any other cold. The 2014 EV-D68 strain seems to produce a more intense inflammatory response from the patient with coughing and difficulty breathing. Many of these children have been hospitalized and some have required ventilator assistance to overcome the problems of airway restrictions. Patients less than 18 years old were more frequently seen with infection compared to patients 18 years or older.

Like most of the other Enteroviruses, the control and prevention of the spread of the disease is paramount. There are no vaccines or antiviral treatment for Enterovirus infections.

Diatherix has carefully researched the gene sequences that are used in our assay and have confirmed our ability to reliably detect all of the clinically relevant strains of Enterovirus including EV-D68. Of the more than 100 clinically relevant Enteroviruses that we detect on our panels, included are approximately 28 strains of Coxsackie virus and 29 strains of Echovirus.

It is important to note that we will not be able to distinguish which Enterovirus is detected in our multiplex test and that the clinician should match the patient's symptoms with a positive result.

Donald Stalons, Ph.D., D(ABMM), MPH
Vice President of Operations and Laboratory Director

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866.979.4242 | www.diatherix-eurofins.com