



TECHNICAL UPDATE:

Enterovirus Inclusivity for EV-D68 and EV-A71

Eurofins Diatherix is currently monitoring the information available on the enteroviruses that recently have been linked to an increase in cases of a polio-like condition in children. The viruses that have been implicated may produce muscle weakness in the patient's legs and arms, or in some cases, varying degrees of paralysis. In 2014, a strain of Enterovirus (EV-D68) was *linked* to a condition called acute flaccid myelitis (AFM). In the initial investigations conducted in 2014-2016, the more severe cases of the disease were seen in children with co-morbidities and researchers attributed the high number of infections to these contributing factors.

The Centers for Disease Control and Prevention (CDC) documents that a total of 396 cases have been identified since 2014 in which significant neurological symptoms (including AFM) were documented. They go on to say that even with the recent increase in the number of severe cases since 2014, patients with AFM are 'rare'. The prevalence of AFM is projected to be less than 1 case per million population each year. The 'case definition criteria' cited by the CDC has been adopted by the Council of State and Territorial Epidemiologists and include the following: acute onset of focal limb weakness and an MRI showing spinal cord lesion(s) largely restricted to gray matter and spanning one or more spinal segments, regardless of age.

Currently, Eurofins Diatherix offers several respiratory tests that incorporate a very inclusive target for clinically relevant enteroviruses. Based upon current analysis of our enterovirus target primers, including EV-D68 (n=392, 98.4% specificity) and EV-A71 sequences (n=209, 95.6% specificity), these viruses should be detected in all respiratory tests that include enterovirus as a target.

It is important to note that for patients that fit the case definition criteria cited above, an additional specimen should be sent through the Public Health Laboratory network for specific typing so that the data can be included in the epidemiological database being compiled by the CDC.