A New Rapid Antigen Test for Human Bocavirus 1 (HBoV1)

A case report published in the New Microbes and New Infections journal describes for the first time the use of an antigen detection assay for the rapid identification of the human bocavirus 1 (HBoV1). HBoV1 was first described in 2005 in children with respiratory tract infections (RTIs) and prevalence studies have shown it can be detected in 1.6 to 21.5% of children with symptoms of RTI.

Diagnosis based on amplification of viral nucleic acids by PCR is a challenge since HBoV1 DNA can persist for months in the respiratory tract. The DNA can thus be found in both symptomatic and asymptomatic patients. In this case report, a 5-month-old patient who was diagnosed with an upper RTI infection was screened for HBoV1 using mariPOC an automated and point-of-care compatible test for rapid and simultaneous detection of respiratory viruses. The patient tested positive for HBoV1; the test result was obtained within 20 minutes and confirmed using PCR. Detection of antigens using mariPOC is based on separation-free-two-photon excitation fluorometry and in this case the assay signal correlated with antigen load; decrease in HBoV1 antigen load was linked to a decrease in the mariPOC assay signal. This is a novel test that allows for rapid and accurate diagnosis of HBoV1 by directly targeting the virus proteins.