

New Test Announcement

Molecular Diagnostics: Respiratory Viral Panel by Multiplex PCR

The Respiratory Viral Panel (RVP) is a comprehensive assay for the detection of a broad range of viruses and subtypes representing the majority of circulating respiratory pathogens of importance to children and immunocompromised patients. The test result is qualitative based on the presence (Positive) or absence (Target not detected) of 14 viruses contained in the panel. More than one virus may be detected and reported since co-infections occur 10 – 30% of the time.

Test Information			
Test Name	Respiratory Viral Panel by PCR		
Methodology	GenMark eSensor® RT-PCR (reverse transcription polymerase chain reaction)		
Specimen(s)	<ul style="list-style-type: none"> ▪ Nasal Wash ▪ Nasal aspirate ▪ 2 NP swabs 	<ul style="list-style-type: none"> ▪ Bronchoalveolar Lavage (BAL), 2 mL ▪ Bronchial wash, 2 mL ▪ 0.5 mL minimum 	
Stability	Transport to lab within 2 hours; store refrigerated up to 7 days in viral transport media		
Availability	Daily; batched once a day		
Turnaround time	24 – 48 h; specimen must be in lab by 0730 for same day processing		
Test includes	<ul style="list-style-type: none"> ▪ Influenza A ▪ Influenza A subtype H1 ▪ Influenza A subtype H3 ▪ Influenza A 2009 H1N1 ▪ Influenza B 	<ul style="list-style-type: none"> ▪ Human Metapneumovirus ▪ Human Rhinovirus (HRV) ▪ RSV A ▪ RSV B ▪ Adenovirus B/E 	<ul style="list-style-type: none"> ▪ Adenovirus C ▪ Parainfluenza 1 ▪ Parainfluenza 2 ▪ Parainfluenza 3 ▪ Parainfluenza 4 (RUO)
Laboratory	Molecular Diagnostics (612) 813-7103		
CPT code	87633		

Additional information

- Enterovirus D68 and poliovirus have been observed to cross-react with human rhinovirus due to genetic similarity. If EV D68 and poliovirus are suspected, viral cell culture should be performed.
- The RVP is not considered a “test of cure” or “test of communicability”. Recommended interval before retesting is 7 days.
- Rhinoviruses can be detected in both acutely ill and asymptomatic infants and children. Prolonged presence of HRV (> 30 days) in the respiratory tract of healthy children after a respiratory illness is uncommon (< 5%). Average shedding is 7 – 11 days in infants and children.
- In most instances, this test is not recommended for use in the ED or ambulatory setting.

For questions, please call

- Dr. Timothy Casey, MD, Medical Director of Microbiology and Molecular Diagnostics (612-813-6711)
- Pat Ackerman, Molecular Technical Specialist, (612-813-6004)
- Molecular Diagnostics Laboratory (612-813-7103)

References

1. Popowitch, Elena B., O’Neill, S.S., Miller, M.B., Comparison of Biofire FilmArray RP, GenMark eSensor RVP, Luminex xTAG RVP1, and Luminex xTAG RVP Fast Multiplex Assays for the Detection of Respiratory Viruses, *J Clin Microbiol* 2013 51(5):1528-33
2. Shane C. McAllister, Schleiss, M.R., Arbefeveille, S., et al, Epidemic 2014 Enterovirus D68 Cross-React with Human Rhinovirus on a Respiratory Molecular Diagnostic Platform, *PLOS ONE* | DOI: 10.1371/journal.pone.0118529 March 23, 2015
3. Loeffelholz, Trujillo, R., Pyles, R.B., et al, Duration of Rhinovirus Shedding in the Upper Respiratory Tract in the First Year of Life, *Pediatrics*, Vol 134(6): 1144-50, Dec. 2014