

Parechovirus Qualitative Real-time RT-PCR



Human parechoviruses (HPEV) are single-stranded RNA viruses belonging to the family Picornaviridae. The parechovirus genus includes 16 genotypes. Infection with parechovirus is common in infants and accounts for a large proportion of febrile illnesses in the summer months, along with enteroviruses. Newborns are at a greater risk to develop an infection with parechovirus and to have serious clinical manifestations, including fever, lethargy, irritability, and poor feeding. In older children symptoms can range from a mild respiratory infection to gastroenteritis or neurological disease. Parechovirus is also often the cause of aseptic meningitis in children less than 5 years of age. Symptoms include febrile illness followed by stiffness in the back and neck, as well as muscle weakness. Rapid diagnosis of viral infection may allow the discontinuation of prophylactic antibiotic treatment for a presumed bacterial infection. Real-time RT-PCR provides a rapid and sensitive method to determine the presence of target-specific amplifiable nucleic acids in all samples intended for PCR¹⁻². For more information, call the lab at 513-636-9820.

Reporting Units:

Positive/Negative

Unacceptable Specimens:

- Frozen whole blood
- Swabs in gel or charcoal media

Shipping Conditions:

- Ambient if sent within 24 hours
- On wet ice if sent >24 hours after collection

Testing Schedule:

Parechovirus testing is performed Mon-Fri on first shift. Seasonally, it is also performed on second shift Mon-Fri and first shift on Sat-Sun. For testing outside of this schedule, call the lab at 513-636-9820. **TAT:** 1-3 days

CPT Codes:

87789

Contact Information:

Cincinnati Children's Division of Pathology
Molecular and Genomic Pathology Services
Phone: 513-636-9820
Fax: 513-803-2941
Email: pathology@cchmc.org
Website: cincinnatichildrens.org/pathology

For pricing or billing questions, call 513-636-9264.

Shipping Address:

Cincinnati Children's Hospital Medical Center
Lab Processing, B4.127
Attn: Molecular and Genomic Pathology Services (MGPS)
3333 Burnet Ave.
Cincinnati, OH 45229

References:

1. <http://www.picornaviridae.com>
2. Piralla A, Mariani B, Stronati M, et al. Human enterovirus and parechovirus infections in newborns with sepsis-like illness and neurological disorders. *Early Human Develop.* 9051:575-577. 2014.

Sample Type	Volume Needed	Collection Container
Anticoagulated Blood or Bone Marrow*	1mL	Lavender Top (EDTA)
Aspirate: endotracheal tube, tracheal	1mL	Sterile Container
Body Fluids (i.e. amniotic, pericardial, pleural, vitreous)	1mL	Sterile Container
Bronchoalveolar Lavage (BAL) fluid	1mL	Sterile Container
Cerebrospinal Fluid (CSF)	1mL	Sterile Container
Plasma*	1mL	Lavender Top (EDTA)
Serum	1mL	Gold Top (SST)
Stool	1mL or 0.3 g	Sterile Container
Swab**: conjunctival, labial, lesion, mouth, nasal, nasopharyngeal, rectal, skin, throat, vaginal, vesicle, wound	n/a	Red or Green Culturette Swab
Tissue***	0.3 g	Sterile Container
Urine	1mL	Sterile Container

* EDTA is preferred, sodium heparin is acceptable.

** Red or green top culturette swabs preferred; viral transport media acceptable.

*** Wrap tissue in gauze wetted slightly with sterile saline to keep moist during transport.

Clinical Lab Index:

hPEV: <https://www.testmenu.com/cincinnatichildrens/Tests/763966>