

Enterovirus Qualitative Real-time RT-PCR



Enteroviruses (EV) are RNA picornaviruses that include Poliovirus, coxsackie viruses group A and B, echoviruses, and enteroviruses. Within these groups, there have been over 70 serotypes isolated from humans. The virus typically replicates in the intestinal tract, where it is often clinically unapparent. In some cases it spreads to other organs where it may cause severe illness. Neonatal infection is usually due to coxsackie viruses and symptoms range from a mild febrile illness to fulminating multisystem involvement, even death. Myocarditis, pneumonia, meningoencephalitis, and severe hepatitis may occur. Enteroviruses are also often the cause of aseptic meningitis in children less than 5 years of age. While there is no treatment for enterovirus-associated central nervous system infection, 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. 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 cold packs if sent >24 hours after collection

Testing Schedule:

Enterovirus 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:

87498

Contact Information:

Cincinnati Children's Division of Pathology
Molecular and Genomic Pathology Services (MGPS)
Phone: 513-636-9820
Fax: 513-517-7099
Email: pathology@cchmc.org
Website: cincinnatichildrens.org/pathology
For pricing or billing questions, call 513-636-4261.

Shipping Address:

Cincinnati Children's Hospital Medical Center
Attn: Molecular and Genomic Pathology Services (MGPS)
240 Albert Sabin Way, R2.001
Cincinnati, OH 45229

References:

1. Zuckerman A, Banatvala J, Pattison J, eds. *Principles and Practice of Clinical Virology*. 2nd ed. John Wiley and Sons, West Sussex, United Kingdom. 1990.

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:

EV: <https://www.testmenu.com/cincinnatichildrens/Tests/662806>