



TECHNICAL NOTICE

THE MEDICAL FOUNDATION

Meningitis/Encephalitis Panel by PCR, Cerebrospinal Fluid (CSF)

Effective Date: September 1, 2016

Performing Department: Microbiology

Order: Test #:36011 **Test Mnemonic:** ME PCR PNL **CPT:** 87496; 87498; 87529 x2; 87532; 87653; 87798 x8

Specimen Requirements and Collection:

SPECIMEN TYPE: CSF **PREFERRED VOLUME:** at least 0.5 mL

MINIMAL VOLUME IN A DEDICATED TUBE (for this test only): 0.3 mL

COLLECTION: CSF specimens should be collected via lumbar puncture. **Collect at least 0.5 ml of CSF in a dedicated sterile tube for the meningitis/encephalitis PCR panel test.**

Please note: **An additional tube with 1 ml of CSF sample is also required for traditional CSF cultures and gram stain.** CSF CULTURE IS NOT REPLACED BY THE PCR PANEL IN PATIENTS WITH SUSPECTED INFECTIOUS MENINGITIS/ENCEPHALITIS. Ideally separate tubes for each test should be submitted.

COLLECTION PRECAUTIONS: Due to the sensitive nature of PCR based testing, it is important to guard against contamination of the specimen. Use clean gloves and wear a surgical mask (or equivalent) while performing the lumbar puncture to prevent contamination by respiratory flora of the health care professional

TRANSPORT: Refrigerated **STORAGE:** Refrigerated

STABILITY: Ambient: 24 hours; Refrigerated: 1 week; Frozen: Unacceptable

CAUSES FOR REJECTION: Frozen or specimen originating from shunt

Use: The Meningitis/Encephalitis (ME) Panel provides quick and accurate identification of the most common CNS infectious agents. The panel tests for 14 pathogens (listed below) and significantly reduces the time to report results on patients being evaluated for meningitis or encephalitis

Method: Qualitative Polymerase Chain Reaction (Film Array PCR)

Organisms Detected by the Panel:

Bacteria:

Escherichia coli K1

Haemophilus influenzae

Listeria monocytogenes

Neisseria meningitidis, encapsulated strains

Streptococcus agalactiae

Streptococcus pneumoniae

Viruses:

Cytomegalovirus (CMV)

Human herpesvirus 6 (HHV-6)

Human parechovirus (HPeV)

Varicella zoster virus (VZV)

Enterovirus (EV)

Herpes simplex virus 1 (HSV-1)

Herpes simplex virus 2 (HSV-2)

Yeast:

Cryptococcus neoformans/gatti

Reference Range: Not Detected

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Joyce Simpson, M.D. • *Medical Director*

Limitations: The ME panel is NOT a replacement for CSF bacterial culture, fungal culture, or Cryptococcal antigen testing in at-risk patients. Non-K1 E. coli serotypes and non-encapsulated strains of Neisseria meningitidis are NOT detected.

The ME panel is NOT intended to evaluate potential CSF shunt infections.

The assay does not distinguish between latent and active CMV and Herpes virus infections. Detection of these viruses may indicate primary infection, secondary reactivation, or the presence of latent virus.

High CSF protein content can interfere with testing

Additional Notes: CSF cell count, glucose, protein, cytology, etc. are not included with this meningitis/encephalitis panel. Additional tests for unusual infectious agents, such as prion disease, also require separate orders. In patients for whom Cryptococcal CNS infection is suspected, a separate order for Cryptococcal Antigen Screen with Reflex to Titer (M-F) # 28083 is recommended

Report: Results are reported as *Detected* or *Not Detected*. Positive results will be handled as a phone report

Testing Schedule: Mon–Sat (future Sunday testing)

Time Reported: Within 8 hrs. after receiving the specimen

Panel incorporates these tests previously requiring separate orders:

HSV by PCR (M-F)	#36013
CMV by PCR (Wed only)	#36136
Enterovirus by PCR (M-F)	#36180
VZV by PCR (performed at ARUP)	#44516

Please direct any questions, or comments regarding this notice to Mary Stepney (mstepney@sbmf.org) at (574) 234-4176 extension 1304, Kevin Maggert (kmaggert@sbmf.org) at (574) 234-4176 extension 1538, Kristen Jacobs, M.D. (kjacobs@sbmf.org) at (574) 236-1396 or call The Medical Foundation, (574) 234-4176 or (800) 544-0925.

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