Recommended testing for patients with findings suggestive of acute (<8 days of symptoms) meningitis or encephalitis.

**NOTE:** Not intended for patients with cerebrospinal fluid (CSF) shunts or possible central nervous system surgical site infections. Infectious Diseases and/or Neurology specialty consultation is recommended.

- Lumbar puncture to obtain CSF. Order the following tests and retain CSF for additional testing:
  - Opening pressure (may not be indicated in neonates/infants)
  - Cytology, cell count and differential
  - Protein and glucose
  - Gram stain
  - Bacterial culture (aerobic with antimicrobial susceptibility testing)
  - Cryptococcal antigen, if indicated per patient risk factors
  - Blood cultures

If CSF testing available on-site

**Perform:**
- Streptococcus pneumoniae antigen
- Herpes simplex virus (HSV) PCR
- Enterovirus PCR

**Consider:**
- Varicella-zoster virus PCR

**Previously healthy patient**

**If CSF parameters do not suggest infection**

Pathogen-specific infection management

**NEGATIVE**

Reevaluate patient

**CSF parameters suggest infection**

Pathogen-specific infection management

**POSITIVE**

Reevaluate patient

**Testing not available**

**NEGATIVE**

CSF parameters do not suggest infection

CSF parameters suggest infection

Pathogen-specific infection management

**ORDER:**
- CSFME / Meningitis/Encephalitis Pathogen Panel, PCR, Spinal Fluid

**POSITIVE**

Pathogen-specific infection management

**NEGATIVE**

CSF parameters do not suggest infection

Reevaluate patient

**Other considerations**
- Vector-borne testing
  - Mosquito-borne pathogens
    - Refer to the Mosquito-borne Disease Laboratory Testing Algorithm for information
  - Tick-borne pathogens
    - LNBAB / Lyme Central Nervous System Infection IgG with Antibody Index Reflex, Serum and Spinal Fluid (see Lyme Neuroborreliosis Diagnostic Algorithm)
    - PBORR / Lyme Disease, Molecular Detection, PCR, Varies
  - For emerging vector-borne diseases (eg, Powassan virus, Jamestown Canyon virus) contact your local public health laboratory for more information
- Neuroimmunology testing (consider if antibody prevalence in epilepsy and encephalopathy [APE2] score is ≥4)
  - ENS2 / Encephalopathy, Autoimmune Evaluation, Serum
  - ENC2 / Encephalopathy, Autoimmune Evaluation, Spinal Fluid
- Parasitic testing
  - FLARP / Free-Living Amebae, Molecular Detection, PCR, Spinal Fluid, Fresh and Paraffin Tissue
  - PTOX / Toxoplasma gondii, Molecular Detection, PCR
  - TXMGP / Toxoplasma gondii Antibody, IgM and IgG (Separate Determinations), Serum
- Other considerations
  - BRBPS / Broad Range Bacterial PCR and Sequencing, Varies
  - HIVDX / HIV-1 and HIV-2 Antigen and Antibody Diagnostic Evaluation, Plasma
  - LCJC / JC Virus, Molecular Detection, PCR, Spinal Fluid

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