Adult Dartmouth Health Meningitis/Encephalitis (ME) Panel Therapy Guidance Document

Use the below table to select the most appropriate treatment for a patient with suspected meningoencephalitis once presumptive identification of an organism has been made via the meningitis/encephalitis multiplex PCR panel, but prior to availability of formal identification and antimicrobial susceptibility data.

Dosing recommendations assume normal renal function and non-extremes of weight. Contact pharmacy if further guidance is needed. Please consult Infectious Diseases (ID) and/or Antimicrobial Stewardship in case of drug allergies preventing the use of first-line therapy.

This guideline does NOT apply to patients less than age 18. For treatment recommendations in this population, please consult pediatric pharmacy/and or pediatric ID.

Remember that there are a number of infectious entities causing encephalitis that are not included on this panel. Examples of such viruses that are found in New England include Eastern equine encephalitis (EEE) virus, West Nile virus (WNV), Jamestown Canyon virus (JCV), and Powassan virus. Please consider Infectious Disease consultation if additional guidance is desired regarding appropriate testing.

ME Panel Result	Preferred Therapy / Comments
E. coli K1	CefTRIAXone 2g IV every 12 hours
Haemophilus influenzae	CefTRIAXone 2g IV every 12 hours
Listeria monocytogenes	Ampicillin 2g IV every 4 hours +/- Gentamicin IV (dosed by pharmacy) *Formal ID consultation is strongly recommended
Neisseria meningitidis	CefTRIAXone 2g IV every 12 hours
Streptococcus agalactiae (group B)	CefTRIAXone 2g IV every 12 hours
Streptococcus pneumoniae	CefTRIAXone 2g IV every 12 hours AND Vancomycin IV (dosed per pharmacy) Addition of dexamethasone 0.15 mg/kg IV every 6 hours is suggested if within 24 hours of antibiotic initiation
Enterovirus	Supportive measures; no antiviral therapy indicated
Human parechovirus	Supportive measures; no antiviral therapy indicated

Herpes simplex virus 1 (HSV-1) Herpes simplex virus 2 (HSV-2)	Acyclovir 10 mg/kg IV every 8 hours <u>If negative</u>: A single negative test does not rule out this diagnosis. Serial testing may be indicated if high clinical suspicion.
Varicella zoster virus (VZV)	Acyclovir 10 mg/kg IV every 8 hours
Cytomegalovirus (CMV)	In patients who are NOT highly immunocompromised, a positive result is more likely to be a false positive than a true positive. Consider the clinical significance of this finding. <u>If felt clinically significant</u>: Ganciclovir 5 mg/kg IV every 12 hours *Formal ID consultation is strongly recommended
Herpes simplex virus 6 (HHV-6)	In patients who are NOT highly immunocompromised (e.g., patient is not a hematopoietic stem cell transplant recipient), a positive result is more likely to be a false positive than a true positive. Consider the clinical significance of this finding. <u>If felt clinically significant</u>: *Formal ID consultation is strongly recommended
*Cryptococcus neoformans/gattii**	Amphotericin B liposome 3-4 mg/kg IV every 24 hours <u>AND</u> Flucytosine 25 mg/kg PO every 6 hours *Formal ID consultation is strongly recommended <u>If negative</u>: This panel is not as sensitive as the Cryptococcal antigen test for the diagnosis of Cryptococcal meningitis. False negative results are a known limitation with this assay.