

Infectious Causes of Encephalitis and Meningoencephalitis in Thailand, 2003–2005

Technical Appendix

Appendix Table. Specimen testing algorithm for all 149 cases of encephalitis, Thailand, 2003–2005

Specimen type (total volume)	Volume of aliquot	Laboratory	Testing in order of priority ^a
CSF (6.5ml)	1.5 ml	Hospital	Cell count
			Protein/glucose
	1.5 ml	Thai NIH	Other (Gram stain, bacterial culture, mycobacterial culture, bacterial latex agglutination, Cryptococcal antigen test, India ink stain, VDRL assay, microscopy)
			PCR for herpes simplex virus, varicella zoster virus and <i>Mycobacterium tuberculosis</i>
1.8 ml	CDC	16S ribosomal RNA PCR	
		Enteroviruses (PCR)	
Blood	0.5 ml	CDC	Enteroviruses (PCR)
			Dengue virus (PCR, IgM)
	1.2+ ml 2.5 ml child 5.5 ml adult	Thai NIH Hospital	Japanese encephalitis virus (IgM)
			West Nile virus (IgM)
Serum (10ml) ^c	1.5 ml	Thai NIH	Herpesviruses (PCR)
			<i>Mycoplasma pneumoniae</i> (PCR)
	1.8 ml	CDC	Nipah virus (PCR)
			Pathogen discovery PCR panel ^b
0.7 ml	CDC	Store for confirmatory testing	
		Dengue, Japanese encephalitis, Chikungunya, West Nile viruses (IgM, PRNT)	
0.7 ml	CDC	Nipah virus (serology)	
		Adenoviruses (serology)	
0.7 ml	CDC	<i>Bartonella henselae</i> (serology)	
		Influenza viruses (serology)	
0.7 ml	CDC	Measles, mumps rubella viruses (serology)	
		<i>Mycoplasma pneumoniae</i> (serology)	
0.7 ml	CDC	Parainfluenza viruses 1, 2 and 3 (serology)	
		Rabies virus (serology)	

Specimen type (total volume)	Volume of aliquot	Laboratory	Testing in order of priority ^a
			<i>Rickettsia</i> spp. (serology)
	1.0 ml	CDC	Store for confirmatory testing
Saliva	5.0 ml	Thai NIH	Storage in 1 ml aliquots
Oropharyngeal swab	0.7 ml	CDC	Rabies virus (PCR)
	One swab in viral transport media	CDC	Adenovirus (PCR)
			Influenza viruses (PCR)
			<i>Mycoplasma pneumoniae</i> (PCR)
			Parainfluenza viruses 1, 2, 3 (PCR)
Urine	10 ml	Thai NIH	Store for future testing
Stool	10-20 g	Thai NIH	Parasites (microscopy)
Sputum		Hospital	<i>Mycobacterium tuberculosis</i>

^aIn hospital laboratories, specialized testing for certain organisms may have been performed only if suspected clinically; in Thai NIH and CDC reference laboratories, the testing algorithm was prioritized as shown according to available specimen volume.

^bConsensus PCR primers for Alphaviruses, Flaviviruses, Bunyaviruses, Herpesviruses group A, Herpesviruses group B, Adenoviruses, VZV

^c12.5-22.5 ml whole blood from children <5 years and 25.5 ml for all other ages.

Abbreviations: VDRL=venereal disease research laboratory; Ab=antibody; PCR=polymerase chain reaction; PRNT= plaque reduction neutralization test; VZV, varicella zoster virus.