Table e-1: Differential diagnoses in patients with possible autoimmune encephalitis

Disorder	Comment
CNS infections	Herpes simplex virus, varicella zoster virus, enterovirus, West Nile virus (these four viruses are the leading causes of infectious encephalitis in the USA), many other viruses depending on local epidemiology, listeria, atypical streptococcus, tuberculosis, neurosyphilis, HIV, Lyme disease, Whipple's disease, malaria, Cryptococcus, aspergillis, mucor, etc. A detailed travel and exposure history is essential. In immunosuppressed or transplant patients, HHV-6, HHV-7, CMV, EBV, JC virus, toxoplasmosis are other considerations.
Neoplastic disorders	Gliomas for instance can sometimes present as a subacute encephalopathy, as can lymphoma or carcinomatous meningitis
Epileptic disorders	Status epilepticus or prolonged seizures as well as epileptic encephalopathies (especially in children)
Septic encephalopathy	Delirium-like presentation occurring in the context of non-CNS infections like a uro-sepsis or pneumo-sepsis
Metabolic encephalopathy	Including hepatic, uremic, or Wernicke encephalopathy, Posterior Reversible Encephalopathy Syndrome (PRES)
Drug toxicity	Including use of illicit drugs. Direct neurotoxic effects of prescribed drugs, such as demyelinating disease secondary to TNFa inhibitor use or through induction of seizures, PRES, idiosyncratic reactions (e.g. neuroleptic malignant syndrome), drug interactions (e.g. serotoninergic syndrome), or drug withdrawal
Other autoimmune disorders	Such as Systemic Lupus Erythematosus (SLE), Sjogren's syndrome, sarcoidosis, Behcet's disease, primary vasculitis of the CNS, Miller Fisher syndrome, multiple sclerosis, etc.
Cerebrovascular disease	Vascular dementia, for instance, can present with step-wise, relatively acute or subacute changes in cognition or confusion, as can thalamic or non-dominant hemisphere strokes
Prion disease	Prion diseases like Creutzfeldt-Jakob disease (CJD) can present as a rapidly progressive dementia
Mitochondrial diseases	Including diseases like MELAS (mitochondrial encephalomyopathy, lactic acidosis, and stroke-like episodes) that can present with subacute neuro-cognitive symptoms
Reye syndrome	An important differential diagnosis in children – rapidly progressive encephalopathy often few days after a viral infection (flu/chickenpox)
Sleep disorders	Kleine-Levin Syndrome, for instance, is typically seen in adolescents but can also occur in younger children and adults, and is characterized by recurring periods of hypersomnia, cognitive, mood changes, hyperphagia, sometimes hypersexuality
Inborn errors of metabolism	An important differential diagnosis in children