

Guidelines for the diagnosis and treatment of acute encephalopathy in childhood.

Mizuguchi et al. / Brain & Development 43 (2021) 2–31

DOI: <https://doi.org/10.1016/j.braindev.2020.08.001>

Acute encephalopathy (AE): denotes syndromes characterized by acute onset of severe and long-lasting disturbance of consciousness, which typically occur in previously healthy children.

Aim: provide clinicians treating acute neurologic disorders of children, with guidelines that are useful for the acute stage management of AE

Design: Japanese Society of Child Neurology (JSCN) guidelines

ACADEMIC P.E.A.R.L.S

Pediatric Evidence And Research Learning Snippet



Acute Encephalopathy in Childhood

Classification of acute encephalopathy (AE)

A. Based on the pathogen of antecedent infection (microbiologic classification)

1. AE associated with viral infections. eg Influenza
2. AE associated with bacterial and other infections. eg Pertussis
3. AE associated with infection of unknown pathogen

B. Based on the clinicopathologic features of encephalopathy (syndromic classification)

1. AE caused by metabolic disorder. eg Classical Reye syndrome
2. Encephalopathy caused by cytokine storm. eg Acute necrotizing encephalopathy (ANE)
3. Encephalopathy with convulsive status epilepticus (possibly by excitotoxic brain damage). eg Acute encephalopathy with biphasic seizures and late reduced diffusion (AESD)
4. Miscellaneous syndromes. eg MERS (mild encephalopathy with a reversible splenic lesion)

Differential diagnosis of acute encephalopathy

CNS infections: encephalitis, meningitis, brain abscess

Demyelination

Autoimmune disorders

Intracranial hemorrhage

Vascular diseases

Brain tumours

Metabolic/Toxic disorders

Organ failure

Others: Febrile seizures, Myocarditis/Arrhythmia, hypertension etc.

Key Message: Evidence-based guidelines targeting AE in children : associated with any pathogen & classified into syndromes

EXPERT COMMENT



- The cardinal symptom of acute encephalopathy is impairment of consciousness and is caused by multiple syndromes
- Some of the recently described syndromes are ANE, AESD, MERS, Sepsis associated encephalopathy etc which should be considered in differential diagnosis
- The guidelines are a useful document for differential diagnosis and a summary of the types of encephalopathy

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Reference

Mizuguchi M, Ichiyama T, Imataka G, Okumura A et al. Guidelines for the diagnosis and treatment of acute encephalopathy in childhood. Brain Dev. 2021 Jan;43(1):2-31. doi: 10.1016/j.braindev.2020.08.001. Epub 2020 Aug 20. PMID: 32829972.