

Influenza encephalitis

By Prav Prathapan, Encephalitis International, and reviewed by Dr Rajish Shil, MBBS, MRCP (London), NIHR Academic Clinical Fellow in Neurology Liverpool, UK

What is influenza encephalitis?

Influenza encephalitis, also known as influenza-associated encephalitis, is a rare but serious neurological complication that can occur as a result of influenza virus infection. Influenza encephalitis typically occurs as a complication of a severe infection by certain strains of the influenza virus, particularly influenza A and B viruses and usually affects children and young adults. The exact mechanisms by which the virus triggers encephalitis are not fully understood, but it is thought to be related to the immune response and inflammation.

Symptoms

In a broad sense, clinical characteristics encompass a combination of flu symptoms and central nervous system (CNS) dysfunction indicators. The conventional flu symptoms present include fever, cough, nasal discharge, sore throat, and headache. Additionally, there are CNS-related neurological manifestations such as seizures, alterations in consciousness, reduced cognitive processing encompassing speech, motor paralysis or sensory loss, unusual or delirious behaviour, and shifts in mental state. The emergence of neurological complications may occur within a span of several days following the initial onset of flu symptoms.

Diagnosis

Diagnosis is usually based on clinical symptoms, a history of recent influenza infection, and neurological examination. Brain imaging, such as magnetic resonance imaging (MRI) or computerised tomography (CT) scans may show signs of inflammation in the brain.

Treatment

Treatment generally involves hospitalisation and supportive care to manage symptoms and ensure the patient's stability. Antiviral medications like oseltamivir (Tamiflu) may be prescribed to target the influenza virus itself. Anti-inflammatory medications and other therapies might be used to manage the brain inflammation.

Outcomes

The prognosis for individuals with influenza encephalitis can vary widely. Some cases can be mild and resolve with appropriate treatment, while others can be severe and result in long-term neurological deficits or even death. Early diagnosis and treatment are crucial for better outcomes.

Prevention

The best way to prevent influenza encephalitis is to get vaccinated against influenza. Practicing good hygiene, such as washing hands regularly and avoiding close contact with sick individuals, can help reduce the risk of infection.

Influenza encephalitis is relatively rare, and most cases of influenza result in milder respiratory symptoms. However, it is important to be aware of this potential complication, especially in individuals who are at higher risk, such as young children, the elderly, and individuals with compromised immune systems.

FS070V1 Influenza encephalitis

Date created: August 2023/Last updated: August 2023/ Review date: August 2026

Disclaimer: We try to ensure that the information is easy to understand, accurate and up to date as possible. If you would like more information on the source material and references the author used to write this document, please contact Encephalitis International. None of the authors of the above document has declared any conflict of interest, which may arise from being named as an author of this document.

Support our information

With our support, no one has to face encephalitis alone. Our advice and information are available free of charge to everyone affected but we are truly grateful when supporters feel able to contribute a little to the cost of these resources. Please donate today by visiting www.encephalitis.info/donate or text the word DOCTOR to 70085 to donate £5.

Thank you!

Encephalitis International, 32 Castlegate, Malton, North Yorkshire, YO17 7DT, UK

Administration: +44 (0) 1653 692583 **Support:** +44 (0) 1653 699599

Email: mail@encephalitis.info **Website:** www.encephalitis.info

Encephalitis International is the operating name of the Encephalitis Support Group.

Registered Charity England and Wales No: 1087843; Registered Charity in Scotland No: SC048210

Charitable Company registered in England and Wales No: 04189027