



## Nipah Virus Infection



Nipah virus infection is an emerging zoonotic disease. Fruit bats are the natural host for the virus. It was first identified in 1998-99 during outbreaks among pig farmers and people with close contact with pigs in Malaysia and Singapore. It can affect a wide range of animals including pigs, horses, goats, sheep, cats and dogs. In the past two decades, multiple outbreaks of human Nipah virus infection were recorded in Bangladesh and India.



### Mode of transmission

Human infection is mainly transmitted through direct contact with sick animals via their contaminated respiratory droplets, nasal secretions and tissues. It can also be transmitted via consuming food contaminated with urine, droppings or saliva from infected bats, usually fruits or fruit products (particularly raw date palm sap). Human-to-human transmission is also possible through close contact with contaminated secretions and excretions of infected persons, which has also been reported in the family of patient and healthcare setting.

### Clinical features

Patients can be asymptomatic. Early symptoms include flu-like symptoms like fever, headache, vomiting, sore throat and muscle ache. Other symptoms include dizziness, drowsiness and decrease in consciousness. Severe cases may develop complications like pneumonia, seizure, encephalitis, coma and even death. The case fatality rate is around 40% to 75%. Among the patients who survive acute encephalitis, around 20% of them may have persistent nerve problems.

### Incubation period

Symptoms usually start to develop around 4-14 days after exposure, but it can be as long as 45 days.

### Management

Currently, there is no specific treatment and drugs for Nipah virus infection. The mainstay of treatment is limited to supportive care.

### Prevention

There is no vaccine available for prevention of Nipah virus infection at present.

The public should adopt the following measures to reduce the risk of infection when travelling to places affected by Nipah virus:

- Avoid contact with wild animals or sick farm animals, especially bats, farming pigs, horses, domestic and feral cats.
- Avoid areas where bats are known to roost.
- Observe good personal hygiene; wash hands frequently with liquid soap and water, especially after contact with animals or their droppings/secretions, and taking caring of or visiting sick people.
- Observe good food hygiene; fruits should be thoroughly washed and peeled before consumption. Fruits with signs of bat bites or found on the ground should not be consumed. Avoid drinking raw date palm sap, toddy or other juice.

For people who have to handle animals or their tissues, they need to wear gloves and other proper protective clothing. Healthcare workers caring for patients with suspected or confirmed infection should implement appropriate infection prevention and control measures at all times.