

SYMPTOMS

Nipah virus is a pathogen with zoonotic origins, typically from fruit bats, that is now responsible for almost-yearly outbreaks. Despite symptoms ranging from mild to severe, case fatality rates stand high at 40-75% ^[1]. The incubation period ranges from 4 days to 2-3 weeks, with initial symptoms lasting an additional 3-14 days; following which might follow a more severe stage in which brain inflammation develops ^[1].

Initial symptoms include:

- Fever and headache
- Cough and sore throat
- Vomiting
- Breathing difficulties

Second stage complications:

- Drowsiness and disorientation
- Mental confusion
- Seizures and coma
- Death

Note that up to 11% will have asymptomatic infection ^[2]. Due to the severity of possible complications, up to 20% of infection survivors will experience long-term neurological deficits; including persistent convulsions, prolonged fatigue and dysfunctional behaviour ^{[1][2]}. Note that in rare cases, relapsing encephalopathy has been documented, possibly resulting in death ^[2].



TRANSMISSION

Distribution and Spread

Nipah virus has various animal hosts, including fruit bats, pigs and horses; with human outbreaks being frequently reported, particularly within Bangladesh and India ^[1]. Clade I Nipah viruses are responsible for outbreaks in these regions, whilst the Clade II species has been localised to Malaysia ^[2]. Human infection occurs through direct contact with infect persons or animals, through their bodily fluids and excretions; or indirectly through consuming infected items, including palm sap or fruit contaminated by fruit bats ^[2]. Infected persons may transmit disease for up to 21 days following symptom onset; through viral shedding in blood, urine, CSF and throat/nasal excretions ^[2]. All such samples can be used in RT-PCR testing in confirming infection ^[2]. The main originating animal host varies across different regions.

RECOMMENDATION

Treatment

At present, there are no licensed treatments against infection, however certain immunotherapeutic treatments are under development, whilst certain antivirals are being tested with Nipah virus disease ^{[1][2]}. Instead, cases are managed with supportive care, including fluids and oxygenation, and symptomatic relief ^[3].

Prevention

Being a Risk Group 4 pathogen, various protocols have to be adhered to for containment, including when handling infected persons and dead bodies ^[2]. No vaccine is currently available ^[3]. General measures include:

- Isolation of infected human cases
- Contact tracing and quarantine of case contacts
- Hygiene practices and protective clothing, when handling sick patients or their specimens

This information has been developed for educational purposes only and is correct at the time of publication. Do not rely solely on the information provided in this publication. If you have any queries regarding this topic or are suffering from any symptoms described, please consult a medical professional immediately.

- Keeping bats away from palm sap collecting sites
- Boiling palm sap to over 100°C before consumption
- Protective clothing when handling sick animals, their fluids or meat

1. Nipah Virus [Internet]. CDC. 2019. Available from: <https://www.cdc.gov/vhf/nipah/index.html> (accessed August 17, 2023).
2. Factsheet on Nipah virus disease [Internet]. ECDC. 2023. Available from: <https://www.ecdc.europa.eu/en/infectious-disease-topics/z-disease-list/nipah-virus-disease/factsheet-nipah-virus-disease> (accessed August 17, 2023).
3. Nipah virus [Internet]. World Health Organization: WHO; 2018. Available from: <https://www.who.int/news-room/fact-sheets/detail/nipah-virus> (accessed August 17, 2023).

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