

Nipah Virus (Paramyxoviridae, Hendra Virus)

The virus was identified in 1999 after causing disease in animals and humans. The virus is named after the location where it was first detected in Malaysia. People of all ages are at risk for Nipah virus in locations in Asia where the virus is active in local animal populations. Bangladesh, India, Malaysia, the Philippines, and Singapore have been known to have previously reported outbreaks.

Transmission

Nipah virus can spread from:

- **Animal to person.** Direct contact with infected animals (such as bats and pigs) or their body fluids (such as blood, urine, or saliva).
 - This virus is a zoonotic virus because it was initially spread from animals to people
- **Contaminated food sources.** Consuming food products that have been contaminated by the body fluids of infected animals (such as palm sap or fruit contaminated by infected bats)
- **Person to Person.** Close contact with a person infected with NiV or their body fluids (including nasal or respiratory droplets, urine, or blood).
 - This is most likely to occur in family members and caregivers of sick individuals

It is unknown if past infection makes a person immune. At this time, it is not known how long a person is able to transmit Nipah virus.

Symptoms

Symptoms appear four to 14 days after exposure to the virus, including:

- **Fever**
- **Headache**
- **Vomiting**
- **Respiratory symptoms** which present in half of the cases early on:
 - Cough
 - Sore throat
 - Difficulty breathing

Severe symptoms may follow, such as:

- **Brain inflammation** (encephalitis)
- **Drowsiness, disorientation, or mental confusion**
- **Seizures**
- **Coma** within 24 to 48 hours

Death occurs in 40 to 75%. Serious nervous disease with Nipah virus has been shown to cause long-term illness in some patients that survive, including persistent convulsions and personality changes.

Infections may lead to symptoms and death much later after exposure; some have been reported months and even years after exposure, known as dormant or latent infections.

Diagnosis

Contact your health care provider if you feel that you have been exposed to Nipah virus. A variety of laboratory tests exist for Nipah virus.

Prevention

In areas where Nipah virus (NiV) outbreaks have occurred, people should:

- **Practice good hand hygiene.** Wash hands regularly with soap and water.
- **Avoid contact with sick bats or pigs.**
- **Avoid areas where bats are known to roost.**
- **Avoid eating or drinking contaminated products by bats**, such as raw date palm sap, raw fruit or fruit that is on the ground.
- **Avoid contact with the blood or body fluids** of any person known to be infected.

Treatment

There is no drug treatment for Nipah infection. A health care provider may:

- **Prescribe Ribavirin**, an antiviral drug that can reduce the duration of fever and the severity of disease.
 - It is unknown if this treatment cures the disease or improves survival.
- **Offer supportive therapy** (i.e., rest, fluid intake) to help manage symptoms.

For more information about the treatment of Nipah Virus contact your health care provider or visit [Nipah Virus \(NiV\) | CDC](#).

Exclusion Guidance

Individuals should be excluded from child care, school, work, or other activities if they have Nipah virus.

- It is unknown how long an infected person can spread Nipah, therefore the North Dakota Health and Human Services (HHS) should be consulted before people are allowed to return to work, school, or child care.

For additional information about Nipah Virus, contact the North Dakota Department of Health and Human Services' Division of Public Health at 800.427.2180.

Resources:

1. Centers for Disease Control and Prevention. (2022, October 19). *Nipah Virus*. Centers for Disease Control and Prevention. Retrieved May 11, 2023, from <https://www.cdc.gov/vhf/nipah/index/html>.
2. Kimberlin, D. W., Barnett, E. D., Lynfield, R., Sawyer, M. H. (2021) Red Book: 2021-2024 Report of the Committee on Infectious Diseases. 31st ed. American Academy of Pediatrics. [Diseases Transmitted by Animals (Zoonoses)] [pages 1048-1060].
3. World Health Organization. (2023). *Nipah virus infection*. World Health Organization. Retrieved May 11, 2023, from <https://www.who.int/health-topics/nipah-virus-infection>.

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