World Health Organization
South-East Asia Region

Nipah Virus Infection - West Bengal State, India (2026)

Questions and answers

Following the notification of two laboratory-confirmed cases of Nipah virus (NiV) infection in West Bengal State, to WHO by the National IHR Focal Point for India, the WHO South-East Asia Regional Office (SEARO) conducted a webinar on 4 February 2026 (available from: Nipah Webinar 2026]). The objective of the webinar was to provide an update on the epidemiology, clinical management, and the public health response initiated by health authorities in India.

After the webinar, there was renewed interest in several aspects of the disease, leading participants to raise several technical questions to WHO. This document provides a summary of the responses prepared by the WHO Health Emergencies Programme (WHE), SEARO, to the key questions submitted by webinar participants.

Disclaimer:

Current evidence on Nipah virus infection is based on a limited number of case series (detailed reports of small groups of patients). With respect to medical countermeasures and public health interventions, the lack of higher-level, hierarchical evidence has limited the ability to make specific therapeutic recommendations. The overall quality of evidence related to Nipah virus infection is constrained by above mentioned factors. Additionally, as new clinical and epidemiological data emerge over time, current information may evolve and require updating to reflect the most recent findings.

While WHO has used its best efforts in preparing this document pertaining to questions and answers related to Nipah virus infection, it makes no representations or warranties regarding the accuracy or completeness of the contents. The advice and strategies contained herein may require adaptation to the specific context in which they are applied.

Users are encouraged to make use of existing national mechanisms, where appropriate, to ensure that the relevant strategies, recommendations, and guidance are appropriately adapted for the prevention and control of Nipah virus infection in their respective settings. WHO has published the WHO South-East Asia Regional Strategy for the prevention and control of Nipah virus infection 2023–2030 to guide its Member States.

1. What is known about the latest Nipah virus infection event in India, including the suspected index case and the timeline of transmission?

Nipah virus infection (NiV) is a serious but rare disease. In India, NiV outbreaks have previously been reported from Kerala and West Bengal states. On 26 January 2026, India reported two confirmed cases of Nipah virus infection in West Bengal State. This event represents the third NiV outbreak reported from West Bengal, following earlier outbreaks in Siliguri in 2001 and Nadia in 2007.

Both recent cases were confirmed by the National Institute of Virology (NIV), Pune, on 13 January 2026. The two patients were healthcare workers from the same private hospital in Barasat, north 24 Parganas District. Of the two affected healthcare workers, one has recovered, while the other died on 12 February 2026 due to multiple complications.

A retrospective epidemiological investigation conducted by the Indian health authorities identified a 55-year-old female patient as the most likely primary (index) case associated with the latest West Bengal Nipah virus infection event.

The index patient had been admitted to the same private hospital in Barasat in mid-December 2025 with an acute illness characterized initially by fever and diarrhoea. Her condition rapidly progressed to pneumonia**,** followed by acute respiratory distress syndrome (ARDS) and subsequently acute encephalitis syndrome (AES), culminating in her death on 22 December.

The two confirmed NiV cases were healthcare workers who had provided care to the index patient during her critical illness, at a time when she had not yet been recognized as a potential Nipah virus case**.** **Disease Outbreak News - Nipah Virus Infection-India**

On 3 February 2026, the International Health Regulations (IHR) National Focal Point for Bangladesh notified WHO of one confirmed case of Nipah virus (NiV) infection in Rajshahi Division. Details are available from the following link: **Nipah virus infection - Bangladesh**

2. How do health authorities determine when a Nipah outbreak is contained or over?

In India, Kerala's standard operating procedures[i] allow for a potential incubation period of up to 21 days for Nipah virus infection, which is applied for contact monitoring and follow-up. If no new cases are reported for a period of 42 days (equivalent to two incubation periods), the outbreak would be considered over.

Similarly, Bangladesh considers the cluster to be over once one full incubation period (21 days) of contact monitoring is completed with no additional cases reported. For larger clusters or where additional caution is warranted, the monitoring period may be extended to two incubation periods (42 days)[ii].

However, in both settings, there remains a possibility that additional cases may occur, including through exposure to contaminated fruits or fruit products, or through contact with infected bats, which are known natural reservoirs of the Nipah virus.

3. How is Nipah virus transmitted from animals to humans and between humans?

Transmission of NiV to humans occurs through contact with infected fruit bats or flying foxes (*Pteropus* species) or their secretions. NiV is also transmitted through consumption of fruits or raw date palm juice contaminated with the saliva, urine, or excreta of infected bats.

Infected humans transmit infection to other humans through close contact with bodily fluids, such as saliva, urine, and faeces, particularly in healthcare settings and among family members and caregivers of sick people, as demonstrated in India (West Bengal, Kerala) and Bangladesh.

During the first recognized outbreak in Malaysia and Singapore, all reported human cases were thought to have resulted from exposure to aerosolized particles from pigs with severe respiratory disease or from direct contact with infectious tissues or other bodily fluids during the slaughtering process.

4. Is Nipah virus airborne, and what situations pose the highest risk of transmission, particularly in health-care settings?

Nipah virus infection is a zoonotic disease transmitted to humans through contact with infected animals, such as fruit bats, or through consumption of fruit or raw date palm juice contaminated with the saliva, urine, or excreta of infected animals. Human-to-human transmission can also occur through close contact with an infected person. Such transmission has been reported in health-care settings and among family members and caregivers providing care to patients. In health-care settings, the risk of spread can increase when infection prevention and control measures are not adequately implemented.

Health and care workers caring for patients with suspected or confirmed infection, or handling specimens from such patients, should consistently implement standard precautions for infection prevention and control for all patients at all times. When managing patients with suspected or confirmed Nipah virus infection, WHO advises the use of contact and droplet precautions. These include wearing a well-fitting medical mask, eye protection, a fluid-resistant gown, and examination gloves.

Airborne precautions should be implemented during aerosol-generating procedures, including placing the patient in an airborne infection isolation room (AIIR) and using a fit-tested filtering facepiece respirator instead of a medical mask. Suspected or confirmed cases of Nipah virus infection should be cared for in a single-patient room.

For family members and caregivers visiting patients with suspected or confirmed Nipah virus infection, similar precautions should be applied.

5. What role do bats, date palm sap, and contaminated fruits play in Nipah virus spillover?

Fruit bats (*Pteropus* species) are the natural reservoir of Nipah virus and can shed the virus through saliva, urine, and faeces without showing signs of illness. Spillover to humans commonly occurs when bats contaminate fresh date palm sap while feeding on or urinating into collection pots, and the raw sap is subsequently consumed.

Similarly, fruits that have been partially eaten or contaminated by bats may serve as a source of infection for humans. In addition, livestock that become infected through exposure to contaminated fruits or bat secretions may act as intermediate hosts, and handling these infected animals can facilitate cross-species transmission to humans.

6. What are the early symptoms of Nipah virus infection, and how does the disease typically progress?

Nipah virus infection is a rare but serious disease. Human infections range from asymptomatic infection to acute respiratory illness and fatal encephalitis (brain infection) in the most severe cases.

Infected individuals typically present initially with fever, headache, myalgia (muscle pain), vomiting, and sore throat. These early symptoms may be followed by dizziness, drowsiness, altered consciousness, and other neurological signs suggestive of acute encephalitis.

Some patients may develop atypical pneumonia and severe respiratory complications, including acute respiratory distress syndrome (ARDS). In severe cases, encephalitis and seizures can occur, progressing to coma within 24–48 hours.

7. How can Nipah virus infection be differentiated from other causes of acute encephalitis or severe respiratory illness?

It is difficult to clinically differentiate Nipah virus infection from other infectious diseases and from other causes of encephalitis or pneumonia without laboratory confirmation. However, several clinical features can raise clinical suspicion.

Most people with Nipah virus infection develop fever along with symptoms involving the central nervous system (such as headache or confusion) and/or the respiratory system (such as difficulty breathing or cough). Other organs may also be affected. Frequently reported additional symptoms include chills**,** fatigue**,** drowsiness**,** dizziness**,** vomiting**,** and diarrhoea**.**

Severe disease can occur in any patient but is particularly associated with those presenting with neurological symptoms, which may progress to encephalitis (brain swelling)**.**

Epidemiological information can further increase suspicion, such as residing in or travelling to an affected area where suspected or confirmed Nipah virus cases have been reported or having contact with a suspected or confirmed NiV case**.**

8. What tests are used to confirm Nipah virus infection, and which specimens are recommended?

During the acute phase of illness (when an infected person is developing symptoms), laboratory confirmation of Nipah virus (NiV) infection is achieved by detecting ribonucleic acid (RNA) specific to NiV in appropriate

clinical samples. Molecular diagnostic methods*, such as reverse transcription polymerase chain reaction (RT-PCR), are used for this purpose.

In the later phase of illness, typically 10–14 days after symptom onset, NiV infection can be identified using serological tests, including enzyme-linked immunosorbent assay (ELISA), to detect antibodies specific to Nipah virus.

Recommended clinical specimens for RT-PCR testing include oropharyngeal and/or nasopharyngeal swabs placed in viral transport media, and urine samples collected in sterile containers. Additional clinical samples such as serum, whole blood, and cerebrospinal fluid (CSF) stored in sterile tubes may also be collected and are important for ruling out other differential diagnoses.

The selection of an appropriate biosafety level and high-containment laboratory facility for processing specimens should be based on a thorough risk assessment, considering the nature of the samples, the diagnostic methods being used, and the specific laboratory activities planned.

**Note: Molecular diagnostic methods are laboratory techniques used to detect or measure DNA, RNA, or proteins to diagnose diseases, infections, and genetic conditions.*

9. What laboratory biosafety measures are required for handling and testing suspected Nipah virus samples?

All laboratory manipulations involving samples from suspected, probable, or confirmed Nipah virus (NiV) cases should be conducted using appropriate biosafety measures determined through a risk-based assessment.

Suspected and/or confirmed positive samples should be handled in a high-containment laboratory until the virus is inactivated using a lysis buffer, a specialized chemical solution that breaks open viral membranes and releases internal components such as proteins, DNA, or RNA for analysis.

An appropriate level of personal protective equipment (PPE) is required for both sample collection and laboratory testing. Laboratory personnel must be adequately trained in the correct procedures for donning and doffing PPE to minimize the risk of exposure.

10. What is the recommended clinical management for suspected or confirmed Nipah virus cases?

There are no specific antiviral treatments currently approved for Nipah virus (NiV) infection. However, early diagnosis enables timely initiation of supportive care, which is critical to reducing mortality. As with other severe viral infections, high-quality supportive medical care can prevent deaths and typically includes:

- Identifying and managing complications, such as encephalitis (brain swelling), pneumonia, and another organ dysfunction.
- Individualizing clinical management to account for underlying health conditions and comorbidities.

- Providing oxygen therapy when required.
- Initiating organ-supportive therapies as indicated, such as mechanical ventilation or renal replacement therapy (dialysis).
- Ensuring adequate hydration and nutritional support, with frequent monitoring of vital signs and clinical parameters.

There are currently no approved drugs or vaccines for Nipah virus infection. WHO has identified Nipah virus as a priority disease under the WHO Research and Development Blueprint, and a range of candidate therapeutics and vaccines are under various stages of development.

11. What infection prevention and control measures are required to protect healthcare workers and prevent hospital transmission?

WHO advises that standard precautions for infection prevention and control (IPC) must be applied at all times and for all patients.:

- Suspected or confirmed NiV cases should be placed in a single-patient room to minimize the risk of exposure to other patients and healthcare workers.
- When caring for patients, healthcare workers should use contact and droplet precautions, including:
  • a well-fitting medical mask
  • eye protection (goggles or face shield)
  • a fluid-resistant gown
  • examination gloves
- Airborne precautions should be implemented during aerosol-generating procedures (AGPs). This includes:
  • placing the patient in an airborne infection isolation room (AIIR)
  • using a fit-tested filtering facepiece respirator instead of a medical mask
- For family members and caregivers visiting patients with suspected or confirmed Nipah virus infection, the same level of precautions should be applied.

12. Are there any approved vaccines or specific treatments for Nipah virus, and what research is currently underway?

There are currently no approved therapeutics or vaccines for Nipah virus infection. Recognising its high public health impact, WHO has identified Nipah virus as a priority pathogen under the WHO Research and Development Blueprint, which aims to accelerate the development of new products and improve existing medical counter measures. In this context, a range of medical countermeasures for Nipah virus infection including candidate vaccines, is under development.

There are currently no approved antiviral treatments for Nipah virus infection. In some settings, clinicians have used antiviral medicines on an experimental or compassionate-use basis, including ribavirin which was used during an open-label trial in Malaysia in 1998–1999, as well as remdesivir and favipiravir.

Monoclonal antibodies (mAbs) for Nipah virus act as targeted passive immunotherapy by neutralizing the virus, binding to its surface glycoproteins, and preventing viral entry into host cells. The fully human monoclonal antibody m102.4 has completed Phase I clinical trials and has been used under compassionate-use protocols. Another candidate, 1F5 (MBP1F5), is currently undergoing Phase I clinical trials.

13. Why do Nipah virus spillover events occur, and how can the risk be reduced at the human, animal, environment interface? Is there any seasonality? What are the differences between the outbreaks in Kerala and West Bengal?

Fruit bats (*Pteropus* species) are the natural reservoir of Nipah virus. They can shed the virus through saliva, urine, and faeces without showing signs of illness.

Nipah virus is transmitted to humans through both direct and indirect pathways**.**

Direct bat-to-human transmission occurs through exposure to bodily fluids of infected bats, such as saliva or excreta. Spillover to humans commonly occurs when bats contaminate fresh date palm sap while feeding on or urinating into collection pots, and the raw sap is subsequently consumed. Similarly, fruits partially eaten or contaminated by bats may serve as a source of infection for humans.

Through indirect pathways, livestock that become infected through exposure to contaminated fruits or bat secretions may act as intermediate hosts, and handling these infected animals can facilitate cross-species transmission to humans.

The key differences between Nipah virus outbreaks in Kerala and West Bengal relate to the spillover source, transmission pattern, and seasonality**.** Kerala outbreaks are usually linked to direct bat-to-human spillovers from fruit bats, while outbreaks in West Bengal, such as the current event, are often associated with consumption of contaminated date palm sap**.**

14. What key messages should be communicated to communities to reduce risk and prevent misinformation during a Nipah event?

Nipah is a rare but serious disease. The case fatality ratio (CFR) in previous outbreaks across Bangladesh, India, Malaysia, the Philippines, and Singapore has ranged from 40% to 75%, depending on local capacity for early detection and clinical management. Preventive measures are therefore essential to reduce the risk of spillover from infected bats, exposure to contaminated fruits or raw date palm sap, and human-to-human transmission.

Efforts to prevent transmission should focus on reducing bat access to date palm sap and other fresh fruit products. Communities should be educated to boil fresh date palm sap before drinking, wash and peel fruits thoroughly, and discard fruits with signs of bat bites. Public health messages should also encourage people to avoid areas where bats roost.

To reduce human-to-human transmission, unprotected contact with suspected or confirmed Nipah virus cases should be avoided. Regular hand washing should be practised after caring for or visiting sick

individuals, along with other basic preventive measures. People with Nipah-like symptoms should be encouraged to seek care promptly at a health facility.

It is advised that the public relies on trusted information sources, such as updates from the Ministry of Health in affected countries and the World Health Organization (WHO). Avoiding the spread of unverified information is also essential to support an effective public health response.

15. What preparedness and cross-border surveillance measures are recommended to prevent international spread of Nipah virus?

To prevent the international spread of Nipah virus, countries should strengthen early event detection and verification through robust surveillance systems. Cross-border information sharing and joint risk assessments between neighbouring countries are essential for the rapid detection of spillover events and early transmission.

Preparedness measures should include strengthening infection prevention and control (IPC) in health-care settings, improving laboratory readiness, and ensuring adequate clinical management capacity. Community-level risk reduction, particularly regarding raw date palm sap consumption and other bat–human interface behaviours, is also critical. In addition, targeted traveller and border health measures can further reduce the risk of international spread.

For this event, WHO does not recommend any travel or trade restrictions, as these are not effective means of controlling Nipah virus transmission. The priority should remain on response measures implemented as close as possible to the source of infection.

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[i] https://www.gavi.org/vaccineswork/how-kerala-curtailed-nipah-virus#:~:text=Rapid%20diagnosis%20enabled%20quicker%20health,washing%20of%20hands%20with%20soap.

[ii] https://moh.gov.bt/wp-content/uploads/2025/01/WHO-guideline-for-Management-Prevention-and-Control-of-Nipah-Virus-Infection.pdf