

## Basic Information - Nipah virus

- Nipah virus (NiV) infection is a newly emerging zoonosis that causes severe disease in both animals and humans. The natural host of the virus are fruit bats. Pigs are known to be the intermediate host.
- Nipah virus can be transmitted to humans from animals (bats, pigs), and can also be transmitted directly from human-to-human.
- Nipah virus infection in humans causes a range of clinical presentations, from asymptomatic infection (subclinical) to acute respiratory infection and fatal encephalitis.
- Nipah virus was first identified in 1999 in Malaysia where it caused an outbreak of respiratory and neurological disease in pigs and encephalitis in humans. Thereafter a genetically distinct strain of Nipah virus emerged in Bangladesh and periodic outbreaks have been reported in Bangladesh from 2001.
- India has reported two outbreaks of NiV in the past: Siliguri outbreak in 2001 with 66 reported cases and 45 deaths. Second outbreak of NiV was reported in 2007 in Nadia, West Bengal wherein 5 cases and 5 deaths were reported. Human-to-human transmission has been documented, in hospital setting in India.
- There is no treatment or vaccine available for either people or animals/ the primary treatment for humans is supportive care.
- Nipah virus outbreaks are generally localised and do not spread to large geographic areas, if adequate containment measures are taken. The epidemics generally die down after a specific period of time.
- First symptomatic case of Nipah virus infection manifested on 2<sup>nd</sup> May 2018 near Perambra in Kozhikode district of Kerala. The index case was a 26-year-old male who initially presented with fever, myalgia and respiratory distress. He died in Calicut Medical College, Kerala within the next few days. Subsequently, four other family members and close contacts were admitted within the next two days, of which three tested positive for Nipah virus at Manipal Centre for Virus Research and were subsequently confirmed at ICMR-National Institute of Virology, Pune.
- Till date, a total of 13 deaths (including the first case) have been reported. These include the family contacts, hospital contacts and health care workers. The index case has a history of contact with bats, residing in a well within the premises of their household.
- As of now, there are no fresh cases in the community. Most of the cases have been reported from Kozhikode district of Kerala.

The Kerala State Govt. as well as the Union Ministry of Health & Family Welfare have immediately come into action. Steps taken are as follows:

- The Kerala Govt. has ensured adequate ICU/hospital isolation wards facilities for all suspect Nipah cases.
- Adequate supply of personal protective equipment (PPE) has been arranged for health care workers.
- Contact tracing of the index case, secondary cases and contacts has been done. All the contacts are kept under close supervision and will be monitored for the next 42 days.
- Pigs have been isolated and surveillance in pigs and other domestic animals has been initiated.
- The Govt. of Kerala is also exploring various treatments for NiV infection.
- MCVR, Manipal and NIV, Pune are well equipped with Nipah diagnostics to cope up with the increased Nipah testing load.
- The NIV, Field Unit at Allapuzha, Kerala has been equipped with diagnostics for Nipah testing.
- The Union Govt. has sent a central team comprising of officials from MoH&FW, NCDC, Delhi, NIV, Pune, clinicians from AIIMS, Delhi and RML Hospital, Delhi is at Kozhikode, Kerala for detailed investigation of the outbreak.

Advice to people:

- Avoid eating half bitten fruits or fruits dropped on the ground.
- Frequent hand washing with soap and water is recommended.
- Avoid contact with bats, pigs and pig handlers.

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