

TODAY'S IMPORTANT CURRENT AFFAIRS

UPSC

Date: 18.09.2024

NIPAH VIRUS INFECTION IN INDIA

Source: The post is based on the article published in “Down to Earth” on 18th, Sep 2024.

In News: The National Virology Institute in Pune confirmed the infection as the cause of death of a 24-year-old man in Malappuram district, marking the resurgence of the deadly zoonotic disease (Nipha).

Syllabus: Mains – GS III (Science and Tech – Virus & Diseases)

Overview:

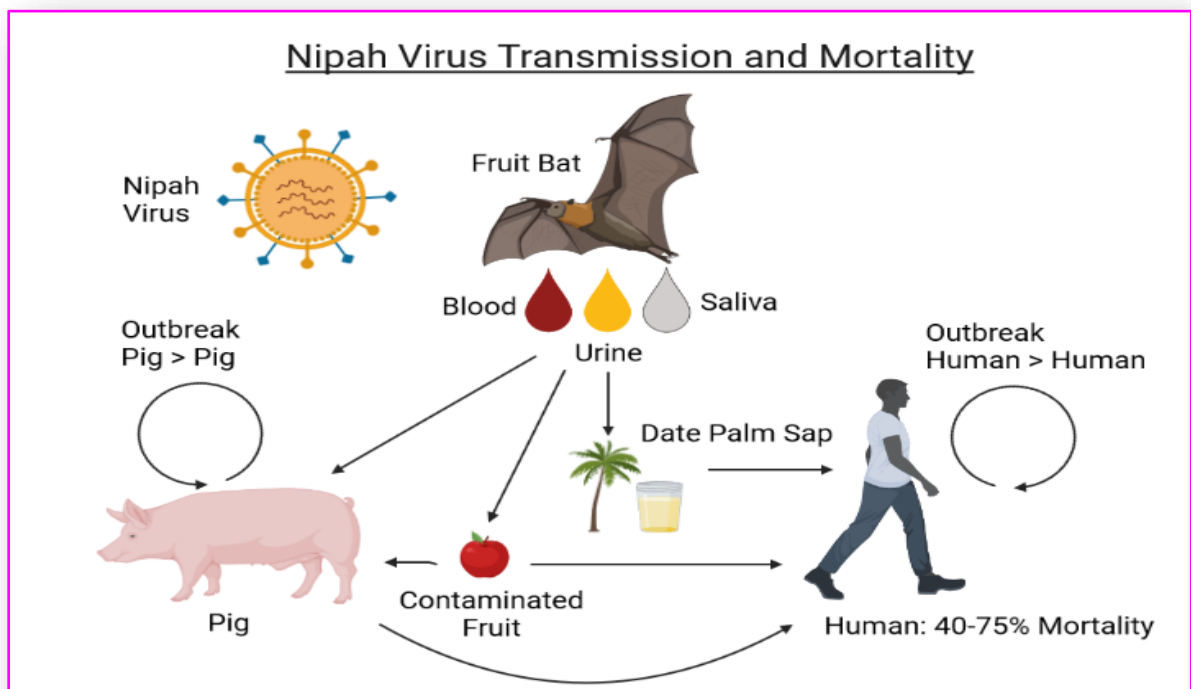
- Nipah virus (NiV) is a zoonotic virus (it is transmitted from animals to humans) and can also be transmitted through contaminated food or directly between people.
- The organism that causes Nipah Virus encephalitis is an RNA or **Ribonucleic acid virus** of the family **Paramyxoviridae**, genus **Henipavirus**, and is closely related to **Hendra virus**.
 - **Hendra virus (HeV)** infection is a rare emerging zoonosis that causes severe and often fatal diseases in both infected horses and humans.



- The **Nipah Virus** first appeared in **Malaysian pig farmers in 1999**. The disease is named after a village in Malaysia, Sungai Nipah, where it was first detected.
- It first appeared in domestic pigs and has been found among several species of domestic animals including dogs, cats, goats, horses and sheep.
- In 2001, it was detected in Bangladesh, and at the same time, it was also found in eastern India.
- Recently, Kerala also experienced a Nipah outbreak.

Nipah Virus Transmission:

- ◆ The disease spreads through fruit bats or ‘flying foxes,’ of the genus Pteropus, who are natural reservoir hosts of the Nipah and Hendra viruses.
- ◆ The infection can occur through direct contact with infected animals, such as bats or pigs, particularly through their bodily fluids.
- ◆ The main source of the Nipah virus is eating fruits, which are contaminated with the saliva of infected fruit bats.



Symptoms:

- ✓ **Common signs:** The infected person shows fever, head pain, muscle aches, nausea, and a scratchy throat.
- ✓ **Progression:** It shows symptoms such as dizziness, drowsiness, and neurological signs suggestive of acute encephalitis may appear.
- ✓ **Severe cases:** The seizures can occur in severe cases, leading to a coma within 24 to 48 hours.
- ✓ **Severity:** It can cause mild to severe disease, including swelling of the brain (encephalitis) and potentially death.

Prevention Strategies:

- Invest in new technologies or techniques to curtail the spread of the virus among bat populations, like the use of drones for surveillance.
- Develop and improve tools to detect the virus early in communities and livestock.
- Follow the strict guidelines in healthcare environments to prevent the virus from spreading from person to person.
- Educate the populations that are at higher risk and show the signs, symptoms, and risks associated with NiV.
- NiV outbreaks are more likely in areas with flying fox habitats (genus Pteropus).
- Residents and visitors to these areas should take precautions similar to those taken in areas with known NiV incidents.
- Currently, there are **no vaccines for both humans and animals**. Intensive supportive care is given to humans infected by the Nipah virus.