



Nipah Virus Information Sheet

NORAD-USNORTHCOM/SG

What is Nipah Virus ?

Nipah virus is a newly recognized highly lethal zoonotic virus. The virus was 'discovered' in 1999. It has caused disease in animals and in humans, through contact with infectious animals. Nipah is closely related to another newly recognized zoonotic virus (1994), called Hendra virus, named after the town where it first appeared in Australia. Both Nipah and Hendra are members of the virus family *Paramyxoviridae*. Although members of this group of viruses have only caused a few focal outbreaks, the biologic property of these viruses to infect a wide range of hosts and to produce a disease causing significant mortality in humans has made this emerging viral infection a public health concern.

Why are we concerned with Nipah Virus as a bioweapon?

The potential to be weaponized and used as biological warfare agents is clearly possible. They may be amplified in cell culture or embryonated chicken eggs, and could be used as a terror weapon targeting humans as well as livestock, the latter which would serve as virus amplifiers. During the outbreak in Malaysia, a total of 265 people were infected, of whom 105 died. An associated outbreak among abattoir workers in Singapore during March 1999 led to 11 cases, with 1 death. These workers had been handling pigs that had been imported from the outbreak areas in Malaysia. Recent evidence has also indicated that transmissibility of Nipah virus from patients with encephalitis to healthcare workers is also possible. Culling of livestock due to Nipah virus would have a economic impact in the billions of dollars and may also impact meat availability.

Does this disease occur naturally?

Yes, it occurs in bats but the method of spreading to animals is not known at this time. Pigs appear to be an amplifier in the spread of the virus to humans.

Are there different forms of this disease?

No.

Is the disease seasonal in its occurrence? No.

How does it spread?

Nipah virus infection is associated with close contact with Nipah virus-infected pigs. People who have contact with body fluids or excretions of pigs infected with Nipah virus are at risk for Nipah virus disease. Hendra is spread via contact with body fluids or excretions of horses. Neither disease has spread from human to human.

Who is at risk?

People who work with pigs infected with the virus are at risk. Most patients in Malaysia were pig farmers, and human infection was linked to exposure to pigs. No apparent cross transmission has occurred from bats to humans. The exact mechanism of infection from pigs to humans is unknown.

What are the symptoms of Nipah Virus?

In many cases the infection is mild or inapparent (sub-clinical). In symptomatic cases, the onset is usually with "influenza-like" symptoms, with high fever, headache and muscle pains (myalgia). The disease may progress to inflammation of the brain (encephalitis) with drowsiness, disorientation, convulsions and coma. Fifty percent of clinically apparent cases die.

How soon do infected people get sick?

The incubation period is between 4 and 18 days

Is a vaccine available to prevent Nipah Virus infection?

There are no existing antiviral therapies effective against these viruses.

Can Nipah Virus be treated?

No drug therapies have yet been proven to be effective in treating Nipah infection. Treatment relies on providing intensive supportive care. There is some evidence that early treatment with the antiviral drug, ribavirin, can reduce

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both the duration of feverish illness and the severity of disease. However, the efficacy of this treatment in curing disease or improving survival is still uncertain.

Where will the medications/immunizations to treat infected individuals come from?

Not applicable as there is no vaccine, antibiotic, or specific treatment.

Are there contraindications to vaccine, antibiotic therapy, other treatments?

Not applicable as there is no vaccine, antibiotic, or specific treatment.

Are there ways to test for Nipah Virus in the environment?

No field expedient methods are available for testing. Samples must be sent to laboratory for testing

What should someone do if they suspect they or others have been exposed to Nipah Virus?

Contact your health care provider if you have concerns about your health or if you or your family members develop symptoms such as nausea, vomiting, diarrhea, and/or stomach cramps.

What can I do to reduce the risk of getting Nipah Virus or giving it to someone else?

These diseases can be prevented by avoiding animals that are known to be infected and using appropriate personal protective equipment devices when it is necessary to come into contact with potentially infected animals. Human-to-human transmission of Nipah virus has not been reported.

Reference:

www.cdc.gov

www.who.int

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