

Hantavirus Outbreak

Prelims: Current events of national and international importance | Health

Why in News?

Recently, The World Health Organization (WHO) has confirmed five hantavirus cases and three fatalities aboard a cruise ship in the Atlantic, near Cape Verde.

Hantavirus

- Hantaviruses are rodent-borne viruses transmitted via urine, droppings, or saliva, causing severe human disease.
- The species of hantavirus involved in this case is the Andes virus.
- **Diseases Caused**
 - **Hantavirus Pulmonary Syndrome (HPS)** - Severe respiratory illness.
 - **Hemorrhagic Fever with Renal Syndrome (HFRS)** - Primarily affecting the kidneys and causing vascular leakage.
- **Global Spread** - Found in Europe, Africa, Asia, and the Americas (North, Central and South).
- **Transmission** - Primarily through inhalation of aerosolised rodent droppings; *not easily spread person-to-person*.

Andes virus is the only hantavirus species known to spread between humans.

Diagnosis

- **Serology (ELISA)** - Detects Immunoglobulins (IgM) antibodies produced at the onset of infection; standard method to confirm active cases of HPS and HFRS.
- **Reverse Transcription - Polymerase Chain Reaction (RT-PCR)** - Identifies viral RNA directly in blood; useful in the very early acute phase, even before antibodies appear.

ELISA looks for antibodies, RT-PCR looks for the virus's genetic material.

How hantavirus can spread to humans

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Particles from infected droppings and urine can become airborne*

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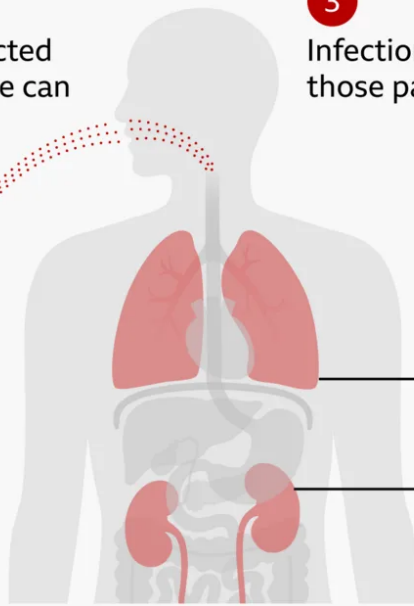
Infection occurs when those particles are inhaled

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It can cause two severe illnesses that can lead to:

1

The virus is often carried by rodents



Respiratory issues and lung damage

Internal bleeding and kidney failure

*It can also be transmitted through cuts, the eyes or from a bite by a rodent

BBC

Symptoms

- **Incubation** - 1-8 weeks post exposure.
- **Early Phase** - Flu-like symptoms - fever, muscle aches, fatigue, headache, mild diarrhoea.
- **Severe Phase** - Respiratory distress, coughing, chest tightness, pneumonia-like signs; can progress to acute respiratory failure.
- **Recovery** - Survivors may take weeks to months to fully recover from fatigue and lung damage.
- **Fatality Window** - Deaths often occur within days of severe respiratory distress if not treated promptly.

Treatment

- *No Vaccine / Specific Antiviral available.*
- **Supportive Care** - Hospitalisation, oxygen therapy, respiratory assistance, IV fluids.
- **Early Detection** - Crucial to prevent progression to severe respiratory distress.
- **Prevention** - Rodent control, sanitation, avoiding exposure to rodent habitats.

References

1. [The Hindu | Hantavirus](#)
2. [BBC | Hantavirus](#)



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