

## Viral haemorrhagic fever

Viral haemorrhagic fever (VHF) is an extremely infectious and life threatening disease caused by four families of viruses. Some of the more well known of these viruses are Ebola, Lassa, Marburg and Crimean-Congo virus. Infections are generally limited to Africa, Central Asia, Eastern Europe, India, the Middle East and Northwest China.

The viruses are transmitted by body fluids such as saliva, urine and blood. Infection of humans can be caused by bites from infected insects and animals. The onset of symptoms is sudden and dramatic, and the death rate for VHF can be as high as 90 per cent.

One major symptom is bleeding (haemorrhage). There is no cure or vaccination. Antiviral medications may help, but treatment is generally limited to alleviating some of the symptoms.

### Symptoms

The evolution of viral haemorrhagic fever usually includes:

- Fever
- Headache
- Muscular aches and pains
- General malaise
- Abdominal pain
- Vomiting and diarrhoea
- Haemorrhaging (bleeding)
- Shock
- Death.

### Primary hosts, transmission modes and incubation

There are many viruses that cause VHF. Each VHF virus has a slightly different profile and only the most common ones are discussed here.

- **Ebola** – the reservoir (likely source of infection) remains unknown, although monkeys are suspected. Transmission can occur by person-to-person exchange of body fluids and accidental inoculation. Incubation is two days to three weeks.
- **Crimean-Congo** – rabbits, birds, rodents and ticks are the reservoirs. It can be transmitted by bites from infected ticks, accidental inoculation and the slaughtering of infected animals. Incubation is two to nine days.
- **Lassa** – wild rodents are the reservoir. Transmission modes include contact with rodent urine, person-to-person exchange of body fluids, accidental inoculation and infections acquired in the laboratory. The incubation period is one to three weeks.
- **Marburg** – monkeys are believed to be the reservoir. Transmission can occur via the exchange of body fluids from person-to-person and accidental inoculation. Incubation is three to ten days.

### Diagnosis

Generally, diagnosing viral haemorrhagic fever requires a blood test to check for antibodies. Antibodies are special proteins of the immune system which are tailored to each antigen, or foreign agent, and therefore flag the presence of the virus.

### Treatment options

To date, there is no cure or vaccination for viral haemorrhagic fever. Treatment options may include:

- Hospitalisation in an intensive care unit
- Strict isolation to prevent spread of infection
- Maintenance of fluid levels and electrolytes
- Antiviral medication, if appropriate
- Supportive care, including treatment for the symptoms.

## Quarantine regulations

In Australia, the VHF viruses are considered 'quarantinable' diseases. Anyone entering Australia who is suspected or diagnosed with VHF will be placed under quarantine in a specialised medical facility. The authorities will then track down any known casual or close contacts to ensure that the infection is not spread.

## Where to get help

- Your doctor
- Communicable Disease Prevention and Control Unit, Department of Health Tel. 1300 65 11 60

## Things to remember

- Viral haemorrhagic fever (VHF) is an extremely infectious and life threatening disease caused by a group of viruses including the Ebola virus.
- Transmission can occur through bites from infected animals, person-to-person exchange of body fluids and accidental inoculation.
- There is no cure or vaccination, and the death rate for VHF can be as high as 90 per cent.

**This page has been produced in consultation with, and approved by:**

Department of Health - Communicable Disease Prevention and Control Unit

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