

Viral Hemorrhagic Fever

DISEASE IN ANIMALS

The term viral hemorrhagic fever (VHF) refers to a group of viruses that result in overall damage to the vascular system and multisystem failure. These symptoms are often accompanied by hemorrhage; however, the bleeding in itself is rarely life threatening. Each virus has one or more non-human species as a reservoir or vector and the disease tends to be limited to the geographic range of the host species.

Reporting: These are reportable animal diseases and all suspected cases must be reported to the Ohio Department of Agriculture (ODA), Division of Animal Industry at (614) 728-6220 or (800) 300-9755 or the USDA APHIS Veterinary Services at (614) 856-4735 or (800) 536-7593. Voluntary reporting to the [local health department](#) (LHD) is encouraged, as most of these are communicable to humans.

Clinical signs: Morbidity and mortality rates vary by virus and species affected. With the exception of yellow fever, infections are asymptomatic in the host species. In other species, clinical presentation is variable, but general signs include fever, anorexia, conjunctivitis, abortion storms and hemorrhage. Rift Valley Fever is commonly associated with abortion storms.

CAUSE	SPECIES AFFECTED	RESERVOIR HOST	TRANSMISSION FROM HOST	DISTRIBUTION
Ebola virus (Filoviridae)	bats, primates	bats (suspected)	aerosol, contact with infective body fluids	Africa, Philippines (outbreaks in U.S. primate laboratories linked to Philippines)
Marburg virus (Filoviridae)	bats, primates	bats (suspected)	aerosol, contact with infective body fluids	Africa
Machupo virus (Arenaviridae)	rodents, primates	vesper mouse (<i>Calomys callosus</i>)	contact with infective excreta	Bolivia
Lassa virus (Arenaviridae)	rodents, primates	multimammate mouse (<i>Mastomys natalensis</i>)	aerosol, contact with infective excreta, ingestion	West Africa
Viral Hemorrhagic Fever	primarily ruminants	unknown mosquitoes	mosquito, aerosol, contact	Africa and Saudi Arabia
Yellow Fever	monkeys, humans	monkeys, humans	mosquito	Africa and South America

Diagnostics: Varies by virus, consult Iowa State University's Fact Sheets and other resources for more details.

Case classification:

- Suspected: a clinical case with signs consistent with a viral hemorrhagic disease.
- Probable: a clinically suspect case with laboratory evidence from a screening or unvalidated test.
- Confirmed: a case that meets confirmatory testing criteria determined by a state or federal diagnostic laboratory.

DISEASE IN HUMANS

Reporting: Suspected human cases and positive laboratory results are required to be reported to LHD. VHF's are Category A Bioterrorism Agents.

Human illness: People with VHF typically have either no symptoms or a mild illness associated with fever and liver abnormalities. However, in some patients the illness can progress to hemorrhagic fever, leading to shock,

hemorrhage, abortion, encephalitis and retinitis. Typically, patients recover within a few weeks, but mortality is possible in those most severely affected.

Personal protection: Transmission varies with the virus, but modes include direct contact, fecal-oral (rodents), aerosol and direct contact. Some viruses can also be transmitted from person to person. When working with suspected cases use standard (e.g. hand hygiene), airborne (e.g. N-95 respirator) and contact (e.g. gowns and gloves) precautions. Use insect repellent, proper clothing, bednets, window screens and other insect barriers to avoid being bitten by mosquitoes and other biting arthropods in infected areas.

FOR MORE INFORMATION

Reportable Animal Diseases in Ohio:

[ODA Division of Animal Industry](#)

[OAC Chapter 901:1-21 Dangerously Contagious or Infectious and Reportable Diseases](#)

[USDA Animal and Plant Health Inspection Service Animal Diseases](#)

Disease in Animals

[Iowa State University Center for Food Security and Public Health Animal Disease Factsheets](#)

[ABCs of bioterrorism for veterinarians, Category A agents, JAVMA pdf](#)

Disease in Humans

[ODH Infectious Disease Control Manual](#)

[CDC Special Pathogens Branch--VHF](#)