



## **VIRAL HEMORRHAGIC FEVERS (VHFs)**

- Agent Information:** Viral Hemorrhagic Fevers (VHFs) refer to a group of illnesses caused by several distinct families of ribonucleic acid (RNA) viruses. The term “Viral Hemorrhagic Fever” describes a severe multi-system syndrome. There are several VHFs with similar effects and varying severity. They include Ebola, Lassa, Marburg, Crimean-Congo, Rift Valley, and others.
- Transmission:** Ebola, Marburg, Lassa, and Crimean-Congo hemorrhagic fever viruses are transmitted to humans following exposure to infected animal hosts or vectors. Person-to-person transmission occurs once an initial person becomes infected. This type of secondary transmission can occur through direct contact with infected people or their body fluids, or through contact with contaminated objects. Aerosol spread is also possible. Overall incubation period is 2-35 days.
- Signs and Symptoms:** Specific symptoms vary by the type of VHF, but initial signs and symptoms include marked fever, fatigue, vertigo, and myalgias. Patients with severe cases show signs of bleeding subcutaneously, internally, and from body orifices. Severely ill cases show signs of hemodynamic instability, central nervous system malfunction, coma, delirium, and seizures. Some VHFs are associated with renal failure.
- Decontamination:** No.
- Isolation:** Negative Pressure.
- Protective Measures:** Contact and droplet precautions with use of an N-95 mask as a minimum. Other protective measures include double-gloving, impermeable gowns, leg and shoe coverings, face shields or goggles, dedicated medical equipment, proper disinfection measures, and restricted access of non-essential staff. Maintain patients in negative pressure isolation rooms. Needle sticks pose the greatest risk to health care workers.
- Lab Samples Requested for Evaluation:** Serum (10-12 cc in red / black top tube). All samples are sent to the Delaware Public Health Laboratory (DPHL), then to the Centers for Disease Control and Prevention (CDC) for analysis.
- Prophylaxis:** No available prophylaxis exists. *Persons considered potentially exposed and all known high-risk and close contacts should be placed under medical surveillance.* (An experimental vaccine for Ebola proved effective in a trial study. Vaccines are available for Yellow and Argentine fevers).



**Treatment:** Possible use of Ribavirin under Investigational New Drug (IND) protocol. No established treatment or cure. Supportive care is the mainstay of treatment with intense hemodynamic support.

**Reporting:** Immediately report suspect cases to the Division of Public Health, Office of Infectious Disease Epidemiology: 1-888-295-5156 (24/7 coverage).

**For more information:** Visit the CDC website: [www.cdc.gov/vhf/](http://www.cdc.gov/vhf/).