

## **VIRAL HEMORRHAGIC FEVERS**

Viral Hemorrhagic Fevers (V.H.F.s) is a group of illnesses caused by several distinct families of viruses. In general, the term "viral hemorrhagic fever" is used to describe a severe multi-system syndrome (multiple organ systems in the body are affected). Characteristically, the overall vascular system is damaged, and the body's ability to regulate itself is impaired. These symptoms are often accompanied by hemorrhage (bleeding); however, the bleeding itself is rarely life threatening. Hemorrhagic fever can be a relatively mild illness or severe and life-threatening.

### **TRANSMISSION**

Viruses causing hemorrhagic fever are initially transmitted to humans when the activities of infected reservoir hosts or vectors and humans overlap - when humans have contact with urine, fecal matter, saliva, or other body excretions from infected rodents. Arthropod vectors associated viruses are spread most often when the vector mosquito or tick bites a human, or when a human crushes a tick. Some of the vectors may also spread virus to animals, livestock, for example. Humans then become infected when they care for or slaughter the animals.

### **SYMPTOMS**

Specific signs and symptoms vary by the type of VHF; initial signs and symptoms often include marked fever, fatigue, dizziness, muscle aches, loss of strength, and exhaustion. Severe cases of VHF often show signs of bleeding under the skin, in internal organs, or from body orifices like the mouth, eyes, or ears. However, although they may bleed from many sites around the body, patients rarely die because of blood loss. Severely ill patient cases may also show shock, nervous system malfunction, coma, delirium, and seizures. Some form associated with renal (kidney) failure.

### **WHO IS AT RISK?**

A few hosts are distributed nearly worldwide, such as the common rat, which can carry Seoul virus, a cause of HFRS; therefore, humans can get HFRS anywhere where the common rat is found. Some hosts, such as the rodent species carrying several of the New World arena viruses, live in geographically restricted areas. Other hosts range over continents, such as the rodents that carry viruses, which cause various forms of Hantavirus pulmonary syndrome (HPS) in North and South America. Therefore, the risk of getting V.H.F.s caused by these viruses is restricted to those areas where the host are found – worldwide.

### **TREATMENT**

Usually supportive therapy; Generally speaking, there is no other treatment or established cure for V.H.F.s. Ribavirin, an anti-viral drug, has been effective in treating some individuals with Lassa fever or HFRS. Treatment with convalescent-phase plasma has been used with success in some patients with Argentine hemorrhagic fever.

### **PREVENTION**

1. Control of rodent populations,
2. Discouraging rodents from entering or living in homes or workplaces
3. Encouraging safe cleanup of rodent nests and droppings
4. Community-wide insect and arthropod control and use of insect repellants proper clothing, bed nets, window screens, and other insect barriers to avoid being bitten.
5. Avoiding close physical contact with infected people and their body fluids, isolating infected individuals and wearing protective clothing, disinfection, and disposal of instruments and equipment used in treating or caring for patients with VHF, such as needles and thermometers.