

MODULE 7

Viral Hemorrhagic Fevers

Ebola, Marburg, Lassa, and Enhanced PPE Requirements

Bioterrorism Preparedness for Nevada Nurses

4.0 Contact Hours | Nevada Board of Nursing Approved

Provider: NV-14175 | NAC 632.340 & NAC 632.355

Learning Objectives

1	Identify major VHF agents and their reservoirs
2	Recognize clinical presentation and disease progression
3	Implement enhanced infection control measures
4	Understand PPE requirements including trained observer for doffing

VHF Overview

Virus	Family	Reservoir	Mortality
Ebola	Filovirus	Bats (suspected)	50-90%
Marburg	Filovirus	Bats	24-88%
Lassa	Arenavirus	Rodents	1-15%
Crimean-Congo HF	Bunyavirus	Ticks	10-40%

Clinical Presentation

Early Phase (Days 1-3): Sudden onset high fever, severe headache, myalgia

Progression (Days 4-7): Nausea, vomiting, diarrhea, maculopapular rash

Hemorrhagic Phase (Days 7+): Bleeding from multiple sites, shock, death

Enhanced PPE Requirements

■ VHF PPE REQUIREMENTS

- Fluid-impermeable gown/suit
- Double gloves with extended cuffs
- N95 respirator or PAPR
- Full face shield
- Impermeable apron
- Boot covers

CRITICAL REQUIREMENT

Trained observer REQUIRED for PPE doffing (removal). Improper doffing is the highest-risk moment for self-contamination!

Treatment

Treatment is primarily SUPPORTIVE CARE: aggressive fluid resuscitation, blood products, vasopressors, renal replacement, antibiotics for secondary infections. Ribavirin may help Lassa fever.

- ✓ VHFs cause vascular damage, bleeding, and multi-organ failure
- ✓ Ebola transmitted through direct contact - NOT airborne
- ✓ Trained observer REQUIRED for PPE doffing
- ✓ Treatment is primarily supportive care