



VIRAL HEMORRHAGIC FEVER (VHF) FRONTLINE HOSPITAL GUIDANCE

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& Human Services



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Viral hemorrhagic fever (VHF) frontline hospital response guidance approval

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Introduction to this guide

This guide provides Utah hospitals and clinics information about how to appropriately respond and treat patients who may possibly have a viral hemorrhagic fever (VHF). We encourage facilities to become familiar with this information before an event to make sure they are ready to respond in a manner that protects their staff and patients.



Tiered approach for hospital preparedness VHF evaluation, testing, and case management

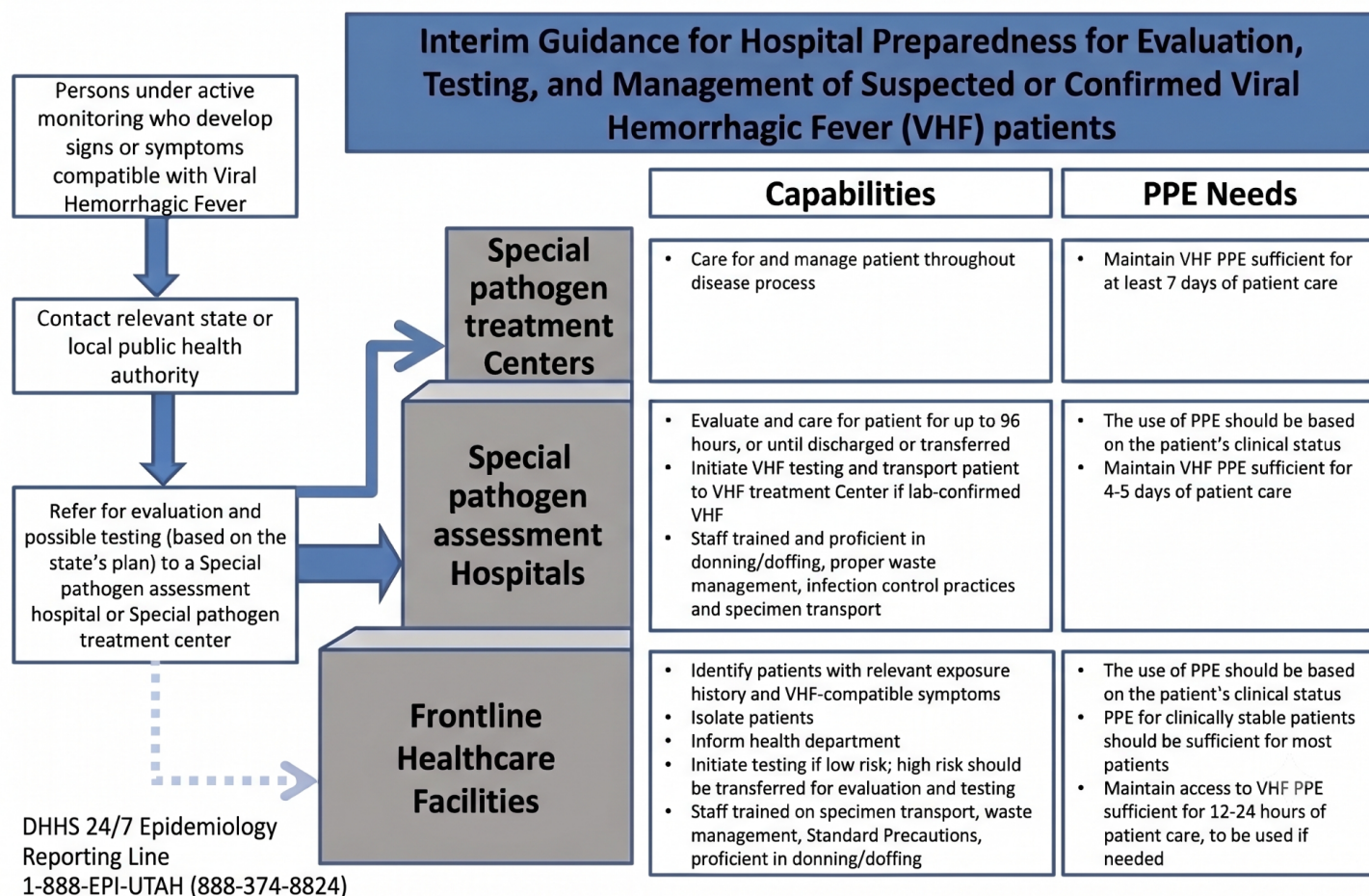
All hospitals have an important role in getting ready to identify, isolate, and evaluate a person at risk of a VHF who arrives at their facility. Any patient who exhibits symptoms of a VHF who has traveled within the last 21 days to a region with known cases should be handled as a potential case.

Frontline and assessment hospitals

Hospitals may serve 1 of 3 roles: a frontline hospital (Tier I), special pathogen assessment hospital (Tier II), or special pathogen treatment center (Tier III) (Figure 3). Representatives from DHHS, local health departments (LHDs), and healthcare facilities throughout Utah have developed an operations plan to guide a coordinated, networked approach to the evaluation, care, and testing of suspect VHF patients, including specific plans for the transfer and treatment of patients with a suspected VHF or a presumptive positive for a VHF.

Currently, Utah does not have any designated special pathogen treatment centers (SPTC). The Denver Health Medical Center, in Denver, Colorado, and Children's Hospital, in Aurora, Colorado, are the designated special pathogen treatment centers for VHF patients for Region VIII. Any patients identified with a VHF in Utah will be transferred to one of these facilities for long-term treatment. Patient transfers to these regional emerging special pathogen treatment centers (RESPTCs) will be coordinated through Utah DHHS and federal partners.

Figure 3: Three-tiered approach for hospital preparedness to manage VHF



As recommended by CDC's [Public Health Management of People with Suspected or Confirmed VHF or High-risk Exposures](#) document, individuals with a potential exposure to a VHF are actively monitored for 21 days after the exposure by local health departments (LHDs) and DHHS. In coordination with DHHS, the LHD will direct persons under active monitoring (PAMs) who become ill to an appropriate healthcare facility for further evaluation and treatment. Suspected VHF patients may be temporarily referred to a frontline hospital when it is not feasible to refer these persons to a special pathogen assessment hospital due to distance, bed availability, or other considerations. It is important to note patients with an unrecognized VHF may present to frontline hospitals without prior notification from health departments. Therefore, frontline hospitals in Utah should:

1. Be prepared to initiate appropriate infection control measures
2. Identify patients with a potential VHF exposure risks and signs and symptoms of a VHF
3. Isolate suspect patients
4. Inform others, including public health authorities for further specific direction to safely meet the patient's healthcare needs



5. Frontline hospitals may provide 12-24 hours of patient care until patient transport to a VHF assessment hospital can occur.

More information is found in the linked poster: [Guide for Clinicians Evaluating an Ill Person for a Special Pathogen](#).

Pre-hospital transport plans, EMS, and emergency department (ED) preparedness

Emergency medical services (EMS) and ED coordination

- DHHS will arrange all patient transfers for suspected or confirmed VHF patients. Transfers can be arranged by calling the DHHS 24/7 Epidemiology Reporting Line 1-888-EPI-UTAH (888-374-8824).
- Establish coordinated plans and procedures in advance, especially with regard to their emergency medical services providers (EMS) and emergency departments (ED).
- Designate healthcare personnel (HCP) to meet the EMS provider transporting suspected or confirmed VHF patients on arrival to the hospital.
- Train ED HCP in questioning EMS providers about possible risk factors for VHFs in patients being transported via ambulance to the hospital.
- Assume care of the patient and assist EMS personnel with doffing PPE, if needed.
- Designate an area where EMS personnel can doff their personal protective equipment (PPE) and an area where EMS personnel can park their ambulance to perform decontamination. These designated areas, as well as desired entry point(s) for EMS, should be identified and communicated with frontline hospital EMS providers. Designated ED entry points should also be secured and free of any other patient or personnel traffic during patient entry and transport.

Identifying a suspect VHF patient

Suspected or confirmed VHF patients should be identified before they enter the frontline hospital.

Protocols should be in place to immediately identify patients who report a relevant exposure history, and signs or symptoms consistent with VHFs. The CDC risk assessment for high consequence pathogens, like VHFs, can be found [here](#). All ED personnel, including appropriate non-clinical staff, should be trained on how to assess a patient's risk for VHFs.



Staffing and training of patient care teams

To ensure preparedness, frontline hospitals should create staffing readiness strategies that represent all relevant clinical and non-clinical departments. These plans should be structured to provide continuous clinical care for a suspected viral hemorrhagic fever (VHF) patient for a period of 12 to 24 hours, covering the duration until the patient is moved to a VHF assessment facility. A primary objective of these plans is to limit the number of staff members who enter the patient's room.

Staff members designated as caregivers for suspected or confirmed VHF cases are required to undergo job-specific training tailored to their specific responsibilities. They should demonstrate proficiency in various infection control protocols, including the correct procedures for donning and doffing personal protective equipment (PPE), managing waste, following infection control practices, and transporting specimens. To address any identified gaps in compliance, retraining should be conducted as necessary. Furthermore, frontline hospitals are responsible for appointing site managers to supervise the implementation of safety precautions for both healthcare personnel and patients during the care of those with a suspected or confirmed VHF.

Patient isolation guidance

- Identify a private room with a private bathroom (or covered bedside commode) in the ED to accommodate a suspected or confirmed VHF patient. The VHF patient room needs to be physically separated from other patient care areas. Ideally, the room will be sealed or closed off to personnel who are not engaged as part of the VHF patient management team. Consider patient isolation in an airborne infection isolation room (AIIR) if aerosol generating procedures (AGPs) are anticipated.
- Avoid contamination of medical supplies and reusable porous surfaces that cannot be made single use.
- More information on isolation can be found at [CDC.gov](https://www.cdc.gov).

Patient transportation

Patient transfer from point of entry to designated patient room

Frontline hospitals should pre-identify a route that is secured and free of any other patient or personnel traffic during patient transport to a pre-identified room in the hospital's emergency department. Healthcare personnel who assist with patient transfer need to wear appropriate PPE.

Protocols should be in place for the patient to be transported in appropriate protective equipment to prevent leakage or spills of body fluids, if needed. In addition, protocols should include management of blood or body fluid spills during transport. Cleaning and disinfection of reusable transportation



equipment and potentially contaminated areas of the transportation route must be included in the hospital protocols.

Patient transfer from a frontline hospital to a special pathogen assessment hospital

Plans for transport of suspected or confirmed VHF patients from a frontline hospital to a special pathogen assessment hospital have been documented in the following plans. [Ebola Conops](#), [Utah First Responder VHF Recommendations and waste disposal](#), [Travel screening tool for VHF](#).

DHHS on-call EPI should be contacted via the DHHS 24/7 Epidemiology Reporting Line 1-888-EPI-UTAH (888-374-8824) to coordinate transfer of the patient to a special pathogen assessment hospital.

PPE: procedures for donning and doffing

PPE is a critical role in a VHF response for any employee who has the potential for exposure to blood or bodily fluids from a VHF infected patient. Protocols have been established at the hospital level as well as support functions from state and local health departments. Recommended PPE varies based on symptoms. Guidelines for suspected VHF patients who are clinically stable and have **no** bleeding, vomiting, or diarrhea can be found [here](#). If a suspected VHF patient has any of these conditions (vomiting, diarrhea, bleeding), use [these guidelines](#).

Monitoring healthcare personnel and exposures

- Frontline hospitals should document contact information in an exposure log of all persons, including EMS providers, hospital HCP, environmental services staff, family members, and any other persons who had direct contact with the VHF patient or contact with any potentially infectious materials from the VHF patient in the ambulance, admitting area, ED, triage area, isolation room, and other areas.
 - The exposure log must include complete information for how to contact the person and enough information about their exposure to assign risk categories (high-risk, some risk, low-risk) for health department staff to assist the frontline hospital with movement and monitoring guidance for exposed persons.
 - More information about HCP monitoring can be found [here](#). Information about quarantine guidance can be found [here](#).
- Frontline hospitals should have work-exclusion policies that encourage prompt HCP reporting of illnesses to their supervisor and the hospital's occupational health program without associated penalties of lost wages, benefits, or job status.



- Frontline hospitals should have protocols for monitoring and patient care restrictions of an asymptomatic VHF patient.
- Additional information on high risk exposures can be found here: [Public Health Management of People with Suspected or Confirmed VHFs or High-risk Exposures | Viral Hemorrhagic Fevers \(VHFs\) | CDC](#).
- HCP should be monitored throughout the duration of care for a patient with a suspected or confirmed VHF. This monitoring should continue for 21 days following the last point of contact with the patient or any potentially infectious materials.

Laboratory safety

Before collecting specimens for a VHF or high-consequence disease testing, healthcare providers should complete a thorough screening and notify DHHS 24/7 Epidemiology Reporting Line 1-888-EPI-UTAH (888-374-8824). CDC consultation will be coordinated through DHHS to determine that the individual meets criteria for testing.

Blood collection procedures for laboratory testing from suspect VHF patients, venipuncture, are associated with high exposure risk. If laboratory testing is required for patient stabilization needs, frontline hospital lab personnel should be trained in handling specimens safely including appropriate PPE use, sample collection, transport, and waste management. Follow [CDC guidelines for routine testing on patients with suspect VHFs](#). If possible, testing should be delayed until the patient arrives at a special pathogen assessment hospital. Any remaining laboratory samples collected at the frontline hospital should accompany the patient to the special pathogen assessment hospital for further testing needs.

To mitigate potential exposure risks, frontline facilities must conduct comprehensive risk assessments covering every stage of specimen handling—from the initial collection in the ED to final processing in the laboratory. These assessments should inform the implementation of necessary administrative and work practice controls, as well as the selection of appropriate PPE.

Specific safety protocols for handling and transporting specimens include:

- Point of care (POC) safety: Instruments used for POC testing must be shielded by an enclosure or barrier to protect staff from potential aerosols or splashes.
- Secure transport: Specimens being moved from the ED to the lab must be housed in durable, leak-proof secondary containers. Before leaving the patient's isolation room, the exterior of these containers must be treated with an EPA-registered disinfectant effective against non-enveloped viruses.
- Restricted transfer methods: Pneumatic tube systems are strictly prohibited for transferring any laboratory specimens from suspected VHF patients.



- Logistics and oversight: Hospitals are required to maintain a rigorous tracking system for all specimens in transit to the lab. Additionally, the laboratory must ensure the safe and secure short-term storage of these materials.

Further guidance about cleaning and disinfection of laboratory surfaces, including management of blood and other body fluid spills, can be found in the environmental infection control and equipment reprocessing section of this document. See [CDC Guidance](#) for more information.

Specimens to collect

For adults, collect two 4 mL tubes of whole blood in a plastic tube preserved with EDTA. Bag each tube separately. For pediatric patients, collect a minimum of 1 mL whole blood in a pediatric-sized collection tube preserved with EDTA.

- Do not transport or ship specimens in glass containers or heparinized tubes.
- Do not separate and remove serum or plasma from the primary collection container.
- Label each specimen with the patient's name or ID number, date of birth, specimen ID number, and the date of collection. Unlabeled specimens will not be accepted for testing.

Packaging and transport to UPHL

Specimens should be transported to the Utah Public Health Laboratory (UPHL), located at 4431 South 2700 West in Taylorsville, for VHF testing. Before sending the sample, call 801-965-2561 (M-F) or 801-560-6586 (24/7) to contact a UPHL Biothreat Response Team member and initiate the required [sample submission paperwork](#).

Specimens must be triple packaged and transported to UPHL as a Category A Infectious Substance, following [International Air Transport Association \(IATA\) guidelines](#). Specimens should be transported on cold packs and stored at 2-8°C. Individuals must be trained and certified to package specimens using Category A guidelines.

Detailed instructions on packaging and transporting VHF specimens to UPHL are found in the [Guidance for submitting VHF specimens to UPHL](#).

Test results should normally be available within 6 hours after specimens are received by UPHL. If the specimen test result is negative and the patient's symptoms have been present for less than 72 hours, a second sample should be collected 72 hours after symptom onset. Any specimens that test positive for a VHF will be sent to CDC for confirmation.



Environmental infection control and equipment reprocessing

Disinfection

- Environmental services staff should wear recommended [personal protective equipment \(PPE\)](#) to protect against direct skin and mucous membrane exposure of cleaning chemicals, contamination, and splashes or spatters during environmental cleaning and disinfection activities.
- Use an EPA-registered hospital disinfectant from [List L](#) or [List Q](#) to disinfect environmental surfaces in rooms of a suspected or confirmed VHF patient.
- The PPE doffing area should be routinely cleaned and disinfected at least once per day and after the doffing of grossly contaminated PPE.
- Dispose all linens, nonfluid-impermeable pillows or mattresses, and textile privacy curtains into the waste stream to reduce staff exposure to contaminated cloth products.
- All cleaning and disinfection products, including disposable wipes, should be used in accordance with manufacturer's instructions (dilution, storage, shelf life, contact time). Materials used to clean and disinfect environmental surfaces and/or reusable medical equipment used for suspect VHF patients should be disposable, and discarded after single use.

Training on disinfection

Frontline hospitals need to designate and train HCP to perform routine cleaning and disinfection of surfaces in the suspect VHF patient's room while the room is occupied by the patient. Protocols should be in place for HCP training regarding appropriate PPE to be worn during cleaning and disinfection activities.

Management of medical equipment

Suspected or confirmed VHF cases require the use of dedicated reusable or disposable patient care equipment. To ensure safety, frontline hospitals must establish clear protocols that specify:

- The specific personnel responsible for cleaning and disinfecting reusable devices.
- The exact procedures and methods used for these disinfection tasks.

HCP should receive specialized training in handling contaminated linens and textiles with minimal agitation to prevent the spread of pathogens.



Spill decontamination and documentation

Hospitals are required to immediately address spills of blood or other bodily fluids by removing bulk matter and applying an EPA-registered disinfectant effective against non-enveloped viruses. Every cleaning and disinfection action related to a suspect VHF patient must be recorded in a dedicated log that tracks:

- What items or areas were cleaned.
- The individual who performed the task.
- The timing and methodology of the disinfection.

Procedural oversight

To maintain high safety standards, frontline hospitals must conduct regular monitoring of their disinfection procedures. This ensures that environmental surfaces and medical equipment consistently receive thorough and adequate decontamination.

Post-discharge cleaning and disinfection

Frontline hospitals should have protocols for post-discharge cleaning and disinfection upon patient discharge or transfer to a special pathogen assessment hospital. All reusable medical equipment, frequently touched surfaces, visibly soiled areas, and floors, in addition to all other surfaces, need to be cleaned and disinfected. All medical waste from a suspected VHF patient should be sequestered as [Category A](#) waste until the patient's VHF test result is known. This waste includes all linens, food trays, dishes, cutlery, and left over food. Further guidance regarding waste can be found in the waste management section of this document and at [CDC's waste management guideline](#).

Waste management coordination

This section is intended to provide key information about procedures and regulations regarding waste associated with suspected or confirmed VHF patients.

- The majority of hospital systems across the state of Utah have protocols and plans in place to dispose of Category A waste. If a patient presents at a facility without Category A waste handling capabilities, DHHS will work with them to dispose of the waste through contracted providers.
- The receiving healthcare system is expected to receive and dispose of the Category A waste from the transport agency of suspected/confirmed VHF patients.



Waste contaminated with or suspected to be contaminated with a VHF, is a Category A waste infectious substance regulated as a hazardous material under the U.S. Department of Transportation (DOT) [Hazardous materials regulations](#) (HMR; 49 CFR, Parts 171-180). Hospitals, EMS, and other healthcare personnel must safely handle, transport, and dispose of waste generated during the care of suspected VHF patients.

Waste that has gone through proper inactivation via autoclaving, incineration, or other approved methods is no longer infectious and does not present a health hazard. Under federal law, such processed material is not classified as regulated medical waste or hazardous material; consequently, it is no longer deemed a Category A infectious substance and is exempt from hazardous materials regulations (HMR). Residual products from incineration, such as ash, may be transported and disposed of following standard hospital protocols and local or state regulations.

Waste generated during ground transport will be managed per the following:

- Until the VHF test result is known all medical waste should be stored as Category A waste and held in the patient care area in containers.
 - The waste should be securely kept in the area clearly labeled as a Category A DOT waste area.
- If VHF test results are negative, waste may be disposed of following the facility's standard operating procedure for waste removal. If VHF test results are positive, waste must be handled according to the [CDC's procedures of safe handling and management of VHF-associated waste](#).
- EMS units will doff PPE and the waste will be disposed of at the final destination per the assessment hospital's waste management plan.
- Safe containment and packaging of waste should be performed as close as possible to the point of generation.
- Limit the number of personnel who handle generated waste before and after primary containment.
- Always use appropriate PPE and procedures for handling waste until transported away from the hospital for offsite inactivation.
- Place soft waste or sealed sharps containers into a primary medical waste bag (min 1.25 or 1.5 ml – ASTM tested).
- Apply bleach or other disinfectant into the primary bag to sufficiently cover the surface of contaminated materials within the bag and tie it securely.
- Treat the exterior surface of the primary container with bleach or other disinfectant.
- Place the primary bag into a secondary bag and securely tie the outer bag.
- Treat the exterior of the surface of the secondary bag with bleach or other disinfectant.



- Until placed in a Category A DOT waste drum the double-bagged waste should be placed on a hard non-porous surface in a secure room in close proximity to point of use. The collection area must be clearly labeled as Category A DOT waste.

Disposal contracts

Disposal contracts have been preliminarily approved and will be created at the time of need to arrange for disposal of special Category A DOT waste drum(s). All transportation contracts will be coordinated through the appropriate channels of the Utah Department of Transportation.

Companies that have agreed to participate in category A waste disposal			
Vendor	Clean Harbors Environmental Services, Inc	Clean Earth Environmental Solutions, Inc.	Veolia Environmental
Services	• Decontamination of contaminated areas • Arrange for transport • Disposal	• Health care facility container delivery • Transport • Disposal	• Health care facility container delivery • Transport • Disposal
Contact	24 HR: 1-800-645-8265 Jamie Creekmore (801)-589-1640 creekmore.jamie@cleanharbors.com	24 HR: 877-445-3478 Steven Doyle (385)-245-4857 sdoyle@harsco.com	24 HR: 1-800-446-8004 Jeremey Furse (385)-243-4484 jeremey.furse@veolia.com

Mortuary affairs

To mitigate the risk of postmortem VHF transmission if a patient dies during transit, EMS providers should follow these protocols. For instructions regarding the transport of remains, immediately contact the DHHS 24/7 Epidemiology Reporting Line at 1-888-EPI-UTAH (888-374-8824).

While most VHF-related deaths in the United States are expected to occur in hospital facilities, fatalities during patient transport remain a possible scenario. Without the use of recommended PPE, the direct handling of remains in postmortem settings can lead to virus transmission. For detailed procedures, refer to the [CDC guidance for the Safe Handling of Human Remains of VHF Patients in U.S. Hospitals and Mortuaries](#).

Confirmed VHF-infected bodies will not be handled by the Utah Department of Health and Human Services Office of the Medical Examiner (OME) unless the specific circumstances of the death necessitate an investigation. Currently, Utah possesses a limited capacity to support HHS Region VIII states with the



processing of VHF-infected remains upon request. This support includes the necessary personnel, specialized equipment, and essential commodities required for safe handling.

Communications

Frontline hospitals should develop a communications plan to inform and educate healthcare personnel and patients about how care is provided for a VHF suspect patient. This communication plan, along with procedures and protocols, needs to be updated and disseminated to appropriate groups, including EMS providers and ED healthcare personnel. The hospital's communication plan should include a process to coordinate and disseminate information with public information officers (PIOs) of LHDs, DHHS, CDC, media, and family members. You should designate a single staff member from the hospital as a primary point of contact. The frontline hospital should develop a plan to maintain communication between the suspect VHF patient and his/her family. An area for the family should be identified within the frontline hospital, away from the suspect VHF patient's room.

While disclosure of health information about suspect VHF patients entering frontline hospitals is critical to effectively contain the disease, DHHS and LHDs will assure the confidentiality and integrity of this protected information by adhering to established agency policies. HIPAA provides protections for individually identifiable health information, and gives patients a number of rights with respect to that information. HIPAA specifies a series of administrative, physical, and technical safeguards, which DHHS has in place and follows.

Access and functional needs populations

Frontline hospital strategies should account for the specific requirements of people with access and functional needs. These plans should address urgent medical requirements for suspected VHF patients that require immediate attention before a transfer to a special pathogens assessment facility, including services like acute dialysis or labor and delivery. The C-MIST framework organizes these considerations into five distinct areas:

1. **Communication:** This includes individuals with limited English proficiency or those requiring braille, sign language, or other assistive tools. It also covers those with a restricted capacity to hear public announcements, read signage, or express their needs verbally.
2. **Maintaining health:** Some patients may have essential requirements for specific clinical services, medical supplies, medications, specialized equipment, nutritional needs, or childcare/infant care.
3. **Independence:** This involves ensuring continued access to service animals, mobility devices, assistive technologies, and aids for communication or vision.
4. **Support:** Considerations include assistance from caregivers, challenges with understanding or memory, history of abuse or trauma, and the need to adapt to unfamiliar settings.



5. **Transportation:** This addresses barriers such as the inability to drive, legal or physical restrictions on operating a vehicle, and a lack of access to reliable transport options.

Description of VHFs

Viral hemorrhagic fevers (VHFs) are a diverse group of illnesses caused by several distinct families of viruses. While some VHFs cause relatively mild illness, many lead to severe, life-threatening conditions.

VHFs can affect both humans and various animal populations (such as nonhuman primates, rodents, and livestock). The diseases are categorized by four primary viral families:

- **Filoviridae:** Includes Ebola and Marburg viruses.
- **Arenaviridae:** Includes Lassa fever and South American hemorrhagic fevers (e.g., Junin, Machupo).
- **Flaviviridae:** Includes Dengue, Yellow Fever, and Alkhurma viruses.
- **Bunyavirales:** Includes Crimean-Congo hemorrhagic fever, Rift Valley fever, and Hantaviruses.

VHFs are zoonotic, or animal-borne, requiring a natural host such as an insect or animal reservoir for survival. While certain reservoirs are still being studied, researchers have confirmed the following primary sources for most known VHFs:

- **Arthropods (e.g., ticks and mosquitoes):** Known hosts for certain Bunyaviruses and Flaviviruses.
- **Rodents (e.g., rats and mice):** Primary reservoirs for Hantaviruses and Arenaviruses.
- **Bats and Nonhuman Primates (e.g., fruit bats, chimpanzees, and monkeys):** Main sources, specifically for Filoviruses

How VHFs spread

The way a VHF initially infects humans depends entirely on its natural reservoir:

- **Insect bites:** People can be infected through the bite of an infected mosquito or tick
- **Animal contact:** Transmission can occur through direct contact with the blood, saliva, urine, feces, or other body fluids of an infected animal, or nonhuman primate
- **Human contact:** Viruses like Ebola, Marburg, and Lassa fever spread through direct contact with:
 - Blood or body fluids (urine, saliva, sweat, feces, vomit, breast milk, and semen) of a person who is sick with or has died from a VHF
 - The virus can remain in certain bodily fluids (including semen) of a patient who has recovered from a VHF, even if they no longer have symptoms of severe illness.
 - Objects (such as needles and syringes) contaminated with body fluids from a person



sick with VHF or the body of a person who died from a VHF

Infected individuals do not immediately exhibit clinical indicators of a VHF infection. It is important to note that these viruses **cannot** be transmitted to others until the onset of signs or symptoms.

Case definitions

Suspected case: The combination of signs and symptoms compatible with a VHF AND an epidemiological risk factor within the [incubation period](#) of the virus before the onset of symptoms, before confirmatory testing occurs. See [Viral Hemorrhagic Fever \(VHF\) 2025 Case Definition](#).

- Acute onset of one or more of the following clinical findings*:
 - Subjective OR measured fever $\geq 38^{\circ}\text{C}/100.4^{\circ}\text{F}$
 - Headache
 - Muscle and/or joint pain
 - Weakness and fatigue
 - Cough/difficulty breathing
 - Pharyngitis
 - Loss of appetite
 - Chest pain
 - Skin rash
 - Red eyes
 - Abdominal pain
 - Vomiting
 - Diarrhea
 - Intractable hiccups
 - Encephalitis or other neurological manifestations
 - Unexplained bleeding or bruising not related to injury or menstruation
 - Acute hearing loss**

**This list of signs and symptoms is not exhaustive and may be nonspecific; no sign or symptom is pathognomonic for VHFs.*

***Relevant for Lassa fever.*

Confirmed case: Confirmed cases are those that meet confirmatory laboratory criteria for diagnosis. See [Viral Hemorrhagic Fever \(VHF\) 2025 Case Definition](#).

VHF outbreak: means a single confirmed case of a VHF disease, or the occurrence of two or more linked cases where the observed incidence significantly exceeds the expected background rate in a specified time, place, and population.

Additional VHF information

For more information on VHF, refer to the [DHHS VHF disease website](#) or the CDC VHF disease website located at [CDC VHF](#).



Appendix

Appendix A: LHD contact information

Local Health Department	Contact numbers
Bear River Health Department	1. 435-716-8771—All hours 2. 877-229-8825—All hours
Central Utah Health Department	1. 435-896-5451—Main office 2. 888-374-8824—After hours epi
Davis County Health Department	1. 801-525-5220—All hours 2. 801-807-9418—After hours
Salt Lake County Health Department	1. 385-468-8888—After hours 2. 385-468-4100—Working hours
San Juan County Public Health Department	1. 435-979-7898—All hours 2. 435-587-3838—After hours epi
Southeastern Utah District Health Department	1. 435-630-1179—All hours 2. 435-637-3671—Office hours
Southwest Utah Public Health Department	1. 435-673-3528—All hours
Summit County Health Department	1. 435-333-1500—Main office 2. 888-374-8824—After hours epi
Tooele County Health Department	1. 435-277-2300—All hours
TriCounty Health Department	1. 435-650-7338—All hours 2. 435-247-1177—Office hours
Utah County Health Department	1. 801-794-3970—All hours
Wasatch County Health Department	1. 435-657-3333—All hours
Weber/Morgan Health Department	1. 801-710-6636—After hours 2. 801-399-7215—Office hours



Appendix B: Assessment tool for VHF frontline hospitals in the state of Utah

Hospital capability domain	Elements required for minimum capability	Minimum capability in place? (Y/N)	
Pre-hospital transport plans, emergency medical services (EMS), triage	<u>EMS providers have protocols for:</u>		
	• Screening patient for VHF by asking about relevant travel history and VHF signs and symptoms	Y	N
	• Safe transport of a suspect VHF patient, including PPE used by EMS personnel	Y	N
	• Training of EMS providers in correct use of PPE and documentation of competency	Y	N
	• Advance notification of the hospital and public health authorities	Y	N
	• Cleaning and disinfection of the ambulance and potentially contaminated equipment	Y	N
	• Disposal of used PPE and waste generated during transport.		
	• Hospital has designated:		
	○ Hospital personnel to meet the EMS provider on arrival to the hospital assume care of the patient and assist EMS personnel with doffing PPE if needed	Y	N
	○ Area where EMS personnel can doff their PPE	Y	N
	○ Area where EMS personnel can park their ambulance to perform decontamination	Y	N
	○ Secured entry point for EMS that is secure and free of any other patient or personnel traffic during patient entry and transport	Y	N
Hospital infrastructure: patient room(s)	<u>Hospital has:</u>		
	• Private negative pressure room with in-room dedicated bathroom with covered toilet or covered bedside commode	Y	N
	• Dedicated patient-care equipment	Y	N
	• Separate areas/rooms immediately adjacent to patient room for:		
	○ Donning PPE	Y	N
	○ Doffing PPE	Y	N



Hospital capability domain	Elements required for minimum capability	Minimum capability in place? (Y/N)	
Patient transportation	<u>Inter-hospital</u>	Y	N
	Plans are in place that have been jointly determined by the state and local public health agency, emergency medical services, and hospital for inter-hospital transfer/transport of suspected VHF patient to an special pathogens assessment hospital		
	<u>Plans include:</u>		
	Ground transport	Y	N
	Air transport (the specimen transport needs to be DOT certified)	Y	N
Laboratory	Identification of transportation provider(s) with appropriate training to safely transport a patient	Y	N
	Identification of transportation provider(s) with appropriate PPE to safely transport a patient	Y	N
	<u>Diagnostic laboratory procedures and protocols are in place for:</u>		
	Minimal level of diagnostic testing capability*	Y	N
	Equipment and supply selection	Y	N
	Disinfection	Y	N
	Staffing	Y	N
	Specimen handoff and transport for routine clinical diagnostic testing at the hospital	Y	N
	<u>Lab personnel have been trained and have demonstrated proficiency in:</u>		
	Donning and doffing of PPE	Y	N
	Waste management	Y	N
	Processing specimens while in PPE	Y	N
	Specimen transport	Y	N
	*Testing capability should include CBC, glucose, potassium, malaria exam, influenza test, liver function tests.		



Hospital capability domain	Elements required for minimum capability	Minimum capability in place? (Y/N)	
Staffing	- Readiness plans include input from a multidisciplinary team of emergency department (including clinical and nonclinical staff) - Staffing plans have been developed and scheduled to support 12-24 consecutive hours of clinical care; sufficient physician and nursing staff are available to handle the patient's care needs - Frontline hospital has a process for continuous staff input from those who may or may not be directly involved in VHF patient care and for addressing employee safety questions and concerns - The overall safe care of VHF patients in a frontline healthcare facility is overseen by an onsite manager at all times	Y	N
Training	All staff involved in or supporting patient care are appropriately trained for their roles.	Y	N
	All staff involved in or supporting patient care and according to their roles have demonstrated proficiency in:		
	Donning and doffing of PPE	Y	N
	Proper waste management	Y	N
	Infection control practices	Y	N
	Specimen transport	Y	N
	Retraining is provided as needed and to address observed gaps	Y	N



Hospital capability domain	Elements required for minimum capability	Minimum capability in place? (Y/N)	
PPE	The hospital has selected appropriate PPE for suspect or confirmed VHF patients who are clinically stable and do not have vomiting, diarrhea, or bleeding, or a clinical condition that warrants invasive or aerosol-generating procedures (intubation, suctioning, active resuscitation). The minimum PPE requirements for this scenario are outlined in the following guidelines	Y	N
	Each step of every PPE donning/doffing procedure is supervised by a trained observer to ensure proper completion of established PPE protocols	Y	N
	Hospital has at least 12-24 hours supply of PPE in stock	Y	N
Aerosol generating procedures (AGP)	Hospital has a plan for performing AGPs on confirmed or suspect VHF patients	Y	N
	Hospital has an airborne infection isolation room (AIIR), negative pressure room, or equivalent available to perform AGP, if indicated	Y	N
	HCP performing or assisting with AGPs are trained to don and doff airborne transmission PPE	Y	N
	Staff who perform the AGP are trained to conduct environmental cleaning directly after the procedure	Y	N
Waste management	Hospital will sequester medical waste until the patient's VHF test result becomes known; if the patient is confirmed to have VHF, arrangements can be made with a vendor capable of managing the waste as a Category A infectious substance	Y	N
	Hospital has appropriate containers for the safe temporary storage of Category A infectious waste	Y	N
	Staff who handle waste are trained in the correct use of PPE and the proper handling and storage of Category A infectious substances at the hospital	Y	N



Hospital capability domain	Elements required for minimum capability	Minimum capability in place? (Y/N)	
Worker safety	Worker safety programs and policies are in place	Y	N
	Hospital is in compliance with all federal or state occupational safety and health regulations applicable to reducing employee exposure to the VHF virus	Y	N
	Hospital has a program for assuring direct active monitoring of all healthcare workers involved in direct patient care to assure monitoring for 21 days since the last known exposure	Y	N
	This monitoring will be done in coordination with local and state public health agencies	Y	N
Environmental services	Hospital has a program in place to clean and disinfect patient care areas and equipment, including use of an Environmental Protection Agency-registered hospital disinfectant with a label claim of potency at least equivalent to that for a non- enveloped virus (norovirus, rotavirus, adenovirus, and poliovirus)	Y	N
	Designated staff are:		
	Trained in correct cleaning and disinfection of the patient room and equipment	Y	N
	Trained in the correct use of PPE	Y	N
	Directly supervised during all cleaning and disinfection	Y	N
	Workers engaged in environmental cleaning and disinfection of patient care areas and equipment follow safe practices including appropriate PPE	Y	N
Communications	To ensure coordination of the response and communication regarding any suspected VHF patients, the hospital has:		
	An emergency management structure	Y	N
	Plans and processes to routinely communicate with local and state public health agencies, emergency management authorities, and its healthcare coalition (if appropriate)	Y	N
	Plans and processes to routinely communicate with hospital employees, patients, and community leadership	Y	N



Appendix C: CDC infection prevention and control assessment tool for acute care hospitals

[\(Infection Control Assessment and Response \(ICAR\) Tool\)](#) This tool is intended to assist in the assessment of infection control programs and practices in acute care hospitals. If feasible, direct observations of infection control practices are encouraged. To facilitate the assessment, health departments are encouraged to share this tool with hospitals in advance of their visit.



Appendix D: Additional resources

- [Health Care Facility Viral Hemorrhagic Fever \(VHF\) Preparedness Checklist | NETEC](#)
- [Epidemiology Utah Department of Health](#)
- [Ebola | Communicable Diseases – Utah DHHS](#)
- [CDC About Viral Hemorrhagic Fevers](#)
- [CDC's VHF Clinical screening and diagnosis](#)
- [Viral Hemorrhagic Fevers \(VHFs\) | CDC](#)
- [Early Recognition Is Critical for Ebola Infection Control](#)
- [Poster: Ambulatory Care Evaluation of Patients with Possible Ebola](#)
- [CDC guidelines for routine testing on patients with suspect VHFs](#)
- [International Air Transport Association \(IATA\) dangerous goods shipping guidelines](#)
- [Guidance for submitting VHF specimens to UPHL](#)



Acronyms

CDC:	Centers for Disease Control and Prevention
DHHS:	Department of Health and Human Services (Utah)
ED:	Emergency department
EMS:	Emergency Medical Services
HCP:	Healthcare personnel
LHD:	Local health department
PAM:	Person under active monitoring
PPE:	Personal protective equipment
RESPTC:	Regional emerging special pathogen treatment center
SPTC:	Special pathogen treatment center
UPHL:	Utah Public Health Laboratory
VHF:	Viral hemorrhagic fever