HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER
MATERNITY AND CHILDREN HOSPITAL

Department:	Infection Prevention and Control Department		
Document:	Multidisciplinary Policy and Procedure (MPP)		
Title:	Viral Hemorrhagic Fever (VHF) Management		
Applies To:	Health Care Workers		
Preparation Date:	November 14, 2024	**Index No:**	IPC-MPP-032
Approval Date:	November 24, 2024	**Version :**	2
Effective Date:	December 24, 2024	**Replacement No.:**	IPC-MPP-032(1)
Review Date:	December 24, 2027	**No. of Pages:**	6

1. PURPOSE:

1.1 To provide clear guidelines for managing patients with suspected and confirmed Viral Hemorrhagic Fever (VHF) in healthcare facilities whether sporadic or in an outbreak situation. This policy can be applied to the following agents that cause syndromes of VHF: Lassa, Marburg, Ebola, Congo-Crimean and Rift Valley hemorrhagic fever viruses.

2. DEFINITONS:

2.1 Viral Hemorrhagic Fevers (VHFs) refer to a group of illnesses that are caused by several distinct families of viruses. In general, the term "viral hemorrhagic fever" is used to describe a severe multisystem syndrome (multisystem in that 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. Transmission can occur though the following:

- 2.1.1 During unprotected contact with a VHF patient or a deceased VHF patient.
- 2.1.2 During unprotected contact with VHF infectious body fluids, blood, secretions or excretions.
- 2.1.3 Contact with contaminated medical equipment and supplies.
- 2.1.4 As a result of an accidental needle stick exposure to infectious body fluids.
- 2.1.5 Laboratory processing of body fluids of infected VHF patients without appropriate personal protective equipment PPE or standard biosafety precautions.

3. POLICY:

3.1 Early recognition and prompt effective use of infection control measures must be implemented to prevent and contain the spread of the disease. The following recommendations apply to patients who within the three weeks period before the onset of the disease have either:

- 3.1.1 Traveled within the specific local area of a country where VHF has recently occurred;
- 3.1.2 Had direct contact with the blood, body fluids, secretions, and excretions of a person or animal with VHF; and
- 3.1.3 Worked in the laboratory or animal facility that handles hemorrhagic fever viruses.

4. PROCEDURE:

4.1 Notification: The following notifications are mandatory if suspected cases of VHF are admitted:

- 4.1.1 The Admitting Consultant notifies the:
  - 4.1.1.1 Infectious Disease Consultant
  - 4.1.1.2 Nurse-in-Charge of Emergency Department and ward where patient is to be admitted
- 4.1.2 The Infectious Disease Consultant notifies the:
  - 4.1.2.1 Chairman of the Infection Control Committee who will then notify the:
    - 4.1.2.1.1 Medical Director
    - 4.1.2.1.2 Executive on duty

4.1.2.1.3 Hospital Director
4.1.2.1.4 Infection Control Coordinator or Infection Preventionist (IP)
4.1.2.1.5 Laboratory and Radiology Departments
4.1.2.1.6 Family Medicine Department / Employee Health Clinic

4.1.3 The Nurse-in-Charge in ER notifies the:
4.1.3.1 Nursing Supervisor or Duty Administrator
4.1.3.2 ICU Head Nurse or Nurse-in-Charge if to be admitted to the ICU

4.1.4 The Nursing Supervisor notifies the:
4.1.4.1 Director of Nursing
4.1.4.2 Nurse Manager to consult on staffing
4.1.4.3 Materials department for equipment for strict isolation.

4.1.5 Infection Control Coordinator or IP notifies the:
4.1.5.1 Housekeeping Manager
4.1.5.2 Central Sterilization Services Department (CSSD) Manager
4.1.5.3 Ministry of Health
4.1.5.4 Utilities and Maintenance for ventilation modification in patient rooms, if needed.

4.2 Identifying an Isolation Unit
4.2.1 Admitting the patient to an isolation room in an appropriate ward if a designated Isolation Unit is not yet available.
4.2.2 Admitting seriously ill unstable patients preferably with a private bathroom in a single room in the ICU with an anteroom.
4.2.3 Identifying an isolation ward in anticipation of more cases.
4.2.4 Activating the pathogen specific Infectious Disease Epidemic Plan (IDEP).

4.3 Emergency Department: Although most exposed or ill persons undergoing evaluation and transportation are in the early stages of disease and would not be expected to have symptoms that increase the likelihood of contact with infectious body fluids (e.g., vomiting, diarrhea, or hemorrhage); for extra precaution, droplet and contact precaution must be implemented, in addition to standard precautions. If a patient has any of the above symptoms consult Infection Preventionist in addition to:
4.3.1 Containing and isolating any body fluid exposure or splashes by securing surroundings and minimizing movement.
4.3.2 Admitting patient to the nearest single room or isolation room, if available.

4.4 Isolation Precautions: Use VHF isolation precautions for suspected and confirmed cases of VHF.
4.4.1 Patient placement
4.4.1.1 Place patient in standard, contact, and droplet precautions.
4.4.1.2 Require a single room with a private bathroom and with a separate entry and exit door. May admit in a negative pressure, if available.
4.4.1.3 Post the appropriate isolation signage outside the anteroom.

4.4.2 Access to the room
4.4.2.1 A VHF certified trained security officer will be assigned at the entrance of the isolation room to ensure that access to the room is restricted.
4.4.2.2 Only VHF certified personnel will be allowed to care for such patients. Certificates will be issued after training by the IP&C Department.
4.4.2.3 A log book shall be available to document all persons entering the patient's room
4.4.2.4 VHF certified trained observers will be stationed at the entry to monitor proper donning of PPE and at the exit to monitor and assist in proper doffing of PPE.

4.4.3 Principles of Personal Protective Equipment (PPE)
4.4.3.1 All healthcare workers assigned to care for VHF patient must have received training and must have demonstrated competency in performing all VHF-related infection control practices, especially, on the proper donning and doffing of PPE.
4.4.3.2 Trained observers should be certified by IP&C to monitor the proper PPE use and adherence to protocols for donning and doffing PPE, and to guide HCWs at each point of use based on a competency checklist

4.4.3.3 IP&C shall conduct training for observers and healthcare workers for proficiency and competency in the use of PPE

4.4.3.4 In the PPE removal area, provide supplies for disinfection of PPE and for performing hand hygiene; and, a place for sitting that can be easily cleaned and disinfected where HCWs can remove boot covers.

4.4.3.5 HCWs must remove personal clothing and items and change into surgical scrubs and dedicated washable footwear prior to donning the required PPE for VHF.

4.4.3.6 HCWs will use the recommended VHF PPE including: double gloves, fluid resistant or impermeable gown, eye protection (goggles or face shield), and a facemask. Detailed PPE donning and doffing are available and updated regularly on the intranet.

4.4.3.7 Additional PPE will be required in certain situations (e.g., copious amount of blood, other body fluids, vomit, or feces present in the environment), including but not limited to double gloving, disposable shoe covers, head cover, leg coverings, and a coverall, if available.

4.4.4 Aerosol generating procedures (AGPs) See policy 028 Aerosol Generating Procedure.

4.4.5 Patient care equipment

4.4.5.1 Utilize isolation cart to keep all routine supplies for the patient outside of the isolatio room.

4.4.5.2 Patient care equipment should be dedicated (preferably disposable) to be used for provision of care.

4.4.5.3 All non-dedicated and non-disposable medical equipment used for patient care should be cleaned and disinfected according to manufacturer's instruction and hospital policy.

4.4.5.4 Contact CSSD regarding reusable instruments for cleaning and sterilization.

4.4.6 Patient care consideration

4.4.6.1 Practice Standard, Contact, and Droplet precautions with all patients to prevent unprotected contact and exposure with blood and body fluids. HCWs should perform hand hygiene frequently

4.4.6.2 Limit the use of needles and sharps. Phlebotomy procedures and laboratory testing should be limited to the minimum necessary for essential diagnostic evaluation and medical care.

4.4.6.3 All needles and sharps should be handled with extreme care and disposed in puncture-proof, sealed containers.

4.4.6.4 Based on the Ministry of Health (MOH) circulars at the time, patient transfer to a designated VHF facility will be identified in the IDEP and updated on the website by the IP&C Department.

4.4.7 Restriction of visitors:

4.4.7.1 Visitors are restricted entry to the patient's room.

4.4.7.2 Exceptions may be considered on a case-to-case basis with due notification from IP&C Department.

4.4.8 Duration of Infection Control Precautions

4.4.8.1 Duration of infection control precautions should be determined on a case-to-case basis in conjunction with IP&C Department.

4.5 Nursing / Medical

4.5.1 Prior to caring for a VHF patient, healthcare workers must be trained and certified, a necessary process which requires training and skills assessment necessary for the safety of the HCWs

4.5.2 In addition, HCWs must complete the healthcare worker's preparedness checklist and competency checklists for specific VHF viral disease provided by IP&C, which are available on the intranet.

4.5.3 Staff caring for patient with suspected or confirmed VHF SHOULD NOT have other assignments

4.5.4 Staff working in that unit will be monitored by IP&C Department twice daily for development of symptoms.

4.5.5 HCWS are accountable for their continuous update by visiting the intranet frequently.

4.6 Monitoring and Management of Potentially Exposed Personnel

4.6.1 HCWs with percutaneous or mucocutaneous exposures to blood, body fluids, secretions, or excretions from a patient with suspected VHF should:

4.6.1 Stop working and immediately wash the affected skin surfaces with soap and water.

4.6.2 rrigate mucous membrane (e.g., conjunctiva) with copious amount of water or eyewash solution.

4.6.3 Contact Surveillance Clinic/Employee Health Clinic/Supervisor for assessment and access to post-exposure management services for all appropriate pathogens.

4.6.4 HCWs who develop sudden onset of fever, intense weakness or muscle pains, vomiting, diarrhea, or any signs of hemorrhage after an unprotected exposure to a patient with VHF should:

4.6.4.1 Not report to work or should immediately stop working if on duty.

4.6.4.2 Notify supervisor who will then notify IP&C Department to arrange for prompt medical evaluation.

4.6.2 Asymptomatic HCWs who had unprotected exposure to a patient with VHF should:

4.6.2.1 Receive medical evaluation promptly and follow-up care including fever monitoring twice daily for the incubation period of the specific VHF virus (e.g., 21 days) after the last known exposure.

4.6.2.2 A protocol shall be developed to ensure twice daily contact with exposed personnel to discuss potential symptoms and document fever checks.

4.6.2.3 Comply with work exclusion/home isolation for the duration of the incubation period of the specific VHF virus or until they are deemed no longer infectious to others.

4.6.2.4 All HCWs in contact with the pathogen of VHF will be tested by an acute and convalescent sera for exposure if the test is available.

4.6.2.5 IP&C Department will authorize approval of leave based on the specific pathogen.

4.7 Handling/Transporting Specimens within the Hospital

4.7.1 In compliance with the recommended guidelines, specimens should be placed in a durable, leak proof secondary container for transport within a facility

4.7.2 To reduce the risk of breakage or leaks, DO NOT use any pneumatic tube system for transporting suspect VHF specimens. All specimens must be hand delivered to the Pathology Department.

4.7.3 Specimens collected for VHF testing should be packaged and shipped without attempting to open the collection tube specimens, in accordance with existing hospital and Ministry of Health guidelines.

4.7.4 Specimen for shipment should be packaged following the basic triple packaging system which consist of a primary receptacle (a sealable specimen bag) wrapped with absorbent material; secondary receptacle (water tight, leak proof); and, an outer shipping package.

4.8 Environmental Cleaning

4.8.1 Use a hospital-approved disinfectant to disinfect hard non-porous surfaces such as Hypochlorites (household bleach) by housekeeping and nursing staff. A solution of 1:10 for blood spills or 1:100 bleach solution for general cleaning can be used. Or use a Hypochlorite based disinfectant tablets and follow instructions as per manufacturer's recommendation for contact time dilution.

4.8.2 Housekeepers performing environmental cleaning should wear the recommended PPE described above and consider using additional barriers such as shoe covers and leg coverings if needed.

4.8.3 Face protection should be worn when performing task such as liquid waste disposal that can generate splashes.

4.8.4 Use designated cleaning equipment (e.g., mop, buckets, etc.) and disposable cleaning materials in the isolation room/unit.

4.8.5 Clean and disinfect equipment and furniture upon patient discharge and keep the room vacantfor 24 hours.

4.8.6 All materials used for the patients and disposable items worn by staff should be double-bagged in airtight yellow bags for immediate transport outside the unit for incineration.

4.8.7 Treat sewage and other fluids with household bleach (i.e., for 5 minutes or longer) before flushing.

4.8.8 Use only yellow bags in the isolation room.

4.9 Laundry

4.9.1 Soiled linens are considered contaminated.

4.9.2 Soiled linens should be placed in leak-proof bags at the site of use and transported directly to the decontamination area for incineration.

4.9.3 Linen used by patients suspected and confirmed with VHF should not be mixed with other linens.

4.10 Management of the Deceased

4.10.1 VHF pathogens are classified as Category II pathogens

4.10.2 Follow the proper identification of body, transportation, & documentation in the morgue.

4.10.3 The nurse-in-charge or dedicated personnel will inform and notify the Morgue Supervisor of the deceased infection status. This should be documented in writing on the identification tag.

4.10.4 Preparation of the body

4.10.4.1 At the site, the body should be wrapped in a plastic shroud, in a way that prevents contamination of the outside of the shroud. Change PPE if they are heavily contaminated with blood or body fluids.

4.10.4.2 Leave any intravenous lines or endotracheal tubes that maybe present.

4.10.4.3 Avoid washing the body.

4.10.4.4 Place immediately in a leak-proof body bag not less than 150 um thick and zip close. Apply surface disinfection on the outer surface of the bag. The bagged bag should be placed in another leak-proof body bag not less than 150 um thick and zip closed. Perform surface disinfection on the outer surface of the body bag prior to transfer for immediate burial.

4.10.4.5 Place proper label on the outer surface of the body bag where it is clearly visible.

4.10.5 Disposition of Remains:

4.10.5.1 Immediate burial in a hermetically sealed casket is highly recommended.

4.11 Referrals

4.11.1 Comply with standard precautions at all times.

4.11.2 Inform the receiving ward by phone regarding the clinical condition of the patient being transferred.

5. MATERIALS AND EQUIPMENT:

5.1 **Forms and Records:**

5.1.1 N/A

5.2 **Materials and Equipment**

5.2.1 N/A

6. RESPONSIBILITIES:

6.1 Health care workers

7. APPENDICES:

7.1 N/A

8. REFERENCES:

8.1 GCC Infection Prevention and control Manual. 3rd Edition. 2018
file:///C:/Users/SPawar/Downloads/The-GCC-Infection-Prevention-and-Control-Manual-3rd-Edition.pdf

9. APPROVALS:

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