POLICY FOR THE MANAGEMENT OF PATIENTS WITH VIRAL HAEMORRHAGIC FEVER

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Contents

*(For quick access to a specific heading - **press CTRL and click your mouse** to follow the link for the below options)*

1. INTRODUCTION

VHFs are severe and life-threatening viral diseases that have been reported in parts of Africa, South America, the Middle East and Eastern Europe.
VHFs are of particular public health importance because:

- They can spread readily within a hospital setting;
- They have a high case-fatality rate;
- They are difficult to recognise and detect rapidly;
- There is no effective treatment.

The Advisory Committee on Dangerous Pathogens (ACDP) undertook an assessment of the risks of transmission of VHF infection. Evidence from outbreaks strongly indicates that the main routes of transmission of VHF infection are **direct contact** (through broken skin or mucous membrane) with blood or body fluids, **and indirect contact** with environments contaminated with splashes or droplets of blood or body fluids. Experts agree that there is no circumstantial or epidemiological evidence of an aerosol transmission risk from VHF patients. Following the revised risk assessment, this policy recommends control options for the isolation of VHF patients in the UK. These options now include flexibility in the isolation of a patient with a VHF infection within a specialist High Level Isolation Unit (HLIU).

IN THE UNLIKELY EVENT THAT A PATIENT IS SUSPECTED OF HAVING VHF (THIS INCLUDES EBOLA) URGENT AND IMMEDIATE ADVICE MUST BE SOUGHT FROM THE UNITED KINGDOM HEALTH SECURITY AGENCY (UKHSA) ON 03003038537
https://www.gov.uk/government/publications/viral-haemorrhagic-fever-algorithm-and-guidance-on-management-of-patients

The algorithm on this page must be adhered to

Environmental conditions in the UK do not support the natural reservoirs or vectors of any of the haemorrhagic fever viruses, and all recorded cases of VHF in the UK have been acquired abroad, with the exception of one laboratory worker who sustained a needle-stick injury.

List of high consequence infectious diseases

A list of HCIDs has been agreed by the UK 4 nations public health agencies, with advisory committee input as required:

Contact HCIDs

- Argentine haemorrhagic fever (Junin virus)
- Bolivian haemorrhagic fever (Machupo virus)
- Crimean Congo haemorrhagic fever (CCHF)
- Ebola virus disease (EBOD)
- Lassa fever
- Lujo virus disease
- Marburg virus disease (MVD)

- Severe fever with thrombocytopaenia syndrome (SFTS)

Airborne HCIDs

- Andes virus infection (hantavirus)
- Avian influenza A(H7N9) and A(H5N1)
- Avian influenza A(H5N6) and A(H7N7) [note 1]
- Middle East respiratory syndrome (MERS)
- Nipah virus infection
- Pneumonic plague (Yersinia pestis)
- Severe acute respiratory syndrome (SARS) [note 2]

Note 1: Human-to-human transmission has not been described to date for avian influenza A(H5N6). Human to human transmission has been described for avian influenza A(H5N1), although this was not apparent until more than 30 human cases had been reported. Both A(H5N6) and A(H5N1) often cause severe illness and fatalities. Therefore, A(H5N6) has been included in the airborne HCID list despite not meeting all of the HCID criteria.

Note 2: No cases reported since 2004, but SARS remains a notifiable disease under the International Health Regulations (2005), hence its inclusion here.

The list of HCIDs will be kept under review and updated by the UK 4 nations public health agencies, with advisory committee input as required, if new HCIDs emerge that are of relevance to the UK.

https://www.gov.uk/guidance/high-consequence-infectious-diseases-hcid#list-of-high-consequence-infectious-diseases

2. PURPOSE

The purpose of this policy and procedure is to provide concise guidance for all staff and to minimize the potential risks associated with the management of a patient suffering from one of the viral haemorrhagic fevers.

3. SCOPE

This document applies to all staff either employed or contracted within in-patient areas in East Coast Community Healthcare CIC (ECCH).

In the UK, only persons who have; (i) travelled to an area where VHFs occur; and/or (ii) been exposed to a patient or animal infected with VHF (including their blood, body fluids or tissues); or (iii) worked in a laboratory with the infectious agents of VHFs; are at risk of infection from VHFs.

4. DEFINITIONS *(if relevant)*

The following definitions are intended to provide a brief explanation of the various terms used within this policy.

Term	Definition
Policy	A policy is a formal written statement detailing an enforceable set of principles or rules. Policies set the boundaries within which we operate. They also reflect the philosophy of our organisation.
VHF	Viral Haemorrhagic Fever

5. RESPONSIBILITIES

- **ECCH Employees** – Are responsible for the implementation of this policy and following the requirements of the policy.
- **Chief Executive of ECCH** – Overall responsibility for the enforcement of this policy lies with the Chief Executive of ECCH
- **ECCH Managers** – Are responsible for ensuring staff adhere to this policy
- **IPACC** – Is responsible for approving this policy

6. POLICY STATEMENT

This policy will be implemented to ensure adherence to safe practice.

7. PROCEDURE

Risk Assessment - https://www.gov.uk/government/publications/viral-haemorrhagic-fever-algorithm-and-guidance-on-management-of-patients
The patient risk assessment must be led by a senior member of the medical team responsible for the acute care of patients, for example the emergency care physician, emergency department consultant or admitting team consultant. The consultant microbiologist will also need to be involved. Clinicians can contact the Imported Fever Service (IFS) after discussions with their local microbiologist/virologist.

Standard precautions and good infection control are paramount to ensure staff are not put at risk whilst the initial risk assessment is carried out. **It is assumed throughout this policy that staff will be using standard precautions**. If these measures are not already in place, they must be introduced immediately when dealing with a patient in whom VHF is being considered. As per the NHS National infection prevention and control manual for England.
https://www.england.nhs.uk/national-infection-prevention-and-control-manual-nipcm-for-england/

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The patient's VHF risk category can change depending on the patient's symptoms and/or the results of diagnostic tests. It is important to note that a patient with a VHF infection can deteriorate rapidly.

Patients with a fever >37.5°C are highly unlikely to have a VHF infection if:

They have not visited a VHF endemic area within 21 days of becoming ill;
They have not become unwell within 21 days of caring for or coming into contact with the bodily fluids of / handling clinical specimens from a live or dead individual or animal known or strongly suspected to have a VHF;
If their UK malaria screen is negative and they are subsequently afebrile for >24 hours;
If their UK malaria screen is positive and they respond appropriately to malaria treatment;
If they have a confirmed alternative diagnosis and are responding appropriately.

The risk of VHF in the patient should be reassessed if a patient with a relevant exposure history fails to improve or develops one of the following:

- Nosebleed;
- Bloody diarrhoea;
- Sudden rise in aspartate transaminase (AST);
- Sudden fall in platelets;
- Clinical shock;
- Rapidly increasing O2 requirements in the absence of other diagnosis.

NOTE: It is recommended that, if a patient is bruised or bleeding, the lead clinician must have an urgent discussion with the local microbiologist who will liaise with the Imported Fever Service concerning further management.

Infection control measures

a) A patient categorised as a 'high or low possibility of VHF' must be isolated in a single side room immediately to limit contact until the possibility of VHF has been ruled out. The side room should have dedicated en-suite facilities.

b) It is assumed that all staff will already be using standard precautions as appropriate. If not, these must be immediately introduced. The level of any additional staff protection is dependent on the patient's symptoms.

Infection control measures for 'possibility of VHF'	
Patient's symptoms	**Staff protection**
Bruising OR bleeding	Standard **plus** droplet precautions required: • hand hygiene • gloves • plastic apron • fluid repellent surgical facemask • disposable visor **In addition, for potential aerosol-or splash-inducing procedures:** • FFP3 respirator or EN certified equivalent
None of the above	• Standard Precautions: • hand hygiene • gloves • plastic apron

c) The medical procedures that are considered to be aerosol generating and associated with an increased risk of respiratory transmission are listed in NHS England's 'National Infection Prevention and Control manual for England (NIPCM)' as:

- awake bronchoscopy (including awake tracheal intubation)
- awake ear, nose and throat (ENT) airway procedures that involve respiratory suctioning
- awake upper gastro-intestinal endoscopy
- dental procedures (using high speed or high frequency devices, for example ultrasonic scalers or high speed drills)
- induction of sputum
- respiratory tract suctioning
- surgery or post-mortem procedures (like high speed cutting or drilling) likely to produce aerosol from the respiratory tract (upper or lower) or sinuses
- tracheostomy procedures (insertion or removal)

Note that:

- 'awake' includes 'conscious' sedation (excluding anaesthetised patients with secured airway)
- the available evidence relating to respiratory tract suctioning is associated with ventilation. In line with a precautionary approach, open suctioning of the respiratory tract, regardless of association with ventilation, has been incorporated into the current AGP list. Only open suctioning beyond the oro-pharynx is currently considered an AGP. Oral or pharyngeal suctioning is not considered an AGP

c) Single use (disposable) equipment and supplies should be used. The use of a needle-free intravenous system to eliminate the risk of needlestick injuries should also be considered.

d) Communication with staff about potential infection risks is paramount. Staff must be informed about and understand the risks associated with a VHF patient, for example:
The severity of VHF if infection is confirmed.

That virus may be present:

- in blood.
- in body fluids, including urine;
- on contaminated instruments and equipment;
- in waste;
- on contaminated clothing;
- on contaminated surfaces.

That exposure to virus may occur:

- **directly**, through exposure (broken skin or mucous membranes) to blood and/or body fluids during invasive, aerosolising or splash procedures.
- **indirectly**, through exposure (broken skin or mucous membranes) to environments, surfaces, equipment or clothing contaminated with splashes or droplets of blood or body fluids.

Diagnostic investigations

All samples from patients in the 'possibility of VHF' category can be treated as high risk samples. Investigations required will include URGENT Malaria investigations. Other investigations, as locally appropriate, may include urine, stool and blood cultures, and chest x-ray (CXR). However, liaison with the local Microbiologist/Virologist is required, particularly if the patient has bruising or bleeding.

Management of a patient categorised as 'HIGH POSSIBILITY OF VHF'

The lead clinician who is responsible for the acute care of the patient must be a senior member of the medical team;

The patient must be isolated in a single side room immediately;

Enhanced infection control measures appropriate to the patient's symptoms and clinical care procedures must be put in place;

Carry out an urgent **VHF** and **malaria screen**, and continue local diagnostic investigations as appropriate and with additional laboratory precautions
Commence early public health actions;

If the patient's VHF screen is **positive**, arrange urgent transfer to the local HLIU and launch full public health actions. **Tel: 03003038537**

Infection control measures
1. The patient must be isolated in a single side room immediately to limit contact. The side room should have dedicated en-suite facilities or at least a dedicated commode.
2. The number of staff in contact with the patient should be restricted.
3. The level of staff protection required is dependent on the patient's symptoms and is set out in the table below:

Infection control measures for 'high possibility of VHF' see algorithm https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/478115/VHF_Algo.pdf	
Patient's symptoms	**Staff protection**
Bruising OR bleeding OR uncontrolled diarrhoea OR uncontrolled vomiting	Enhanced precautions required (standard plus droplet plus respiratory protection): • hand hygiene • Inner gloves • Middle gloves taped to the gown with microprous tape • Outer gloves • fluid repellent disposable gown – an all-in-one disposable should be considered as an alternative; • Medium thickness apron • Long length visor • Hood • FFP3 respirator or EN certified equivalent • Wellington boots
None of the above	Droplet precautions (standard plus droplet) required: • hand hygiene • gloves

	• plastic apron • fluid repellent surgical facemask • disposable visor. **In addition, for potential aerosol-or splash-inducing procedures:** FFP3 respirator or EN certified equivalent

Waste, Laundry, Decontamination and Disinfection
Guidance can be found at:Risk assessment and immediate management of viral haemorrhagic fevers (contact high consequence infectious diseases) in acute hospitals - GOV.UK

Commented [KO1]: Link does not work

Other requirements
Inform the Lead for Infection Control/Microbiology Doctor who, in turn, will inform the UKHSA (Tel 0300 3038537). Contact the UKHSA **directly** only in the unlikely event of failing to contact the Lead for Infection Control/Microbiology Doctor first.

Disposal of the deceased

Where a confirmed VHF case has died while being cared for in a bed isolator, the body should be removed according to the local operational policy.

Where the body of a confirmed or suspected VHF patient is not in an isolator, staff wearing suitable PPE should place the body in a double body bag. Absorbent material should be placed between each bag and the bag sealed and disinfected with 1000 ppm available chlorine or other appropriate disinfectant. The bag should be labelled as high risk of infection and placed in a robust coffin with sealed joints.

The national public health agency, UKHSA, should be contacted.

NB: See ECCH Policy: Care of the Cadaver

8. MONITORING AND REVIEW

This document will be reviewed by the Infection Prevention & Control Team, March 2027or sooner if changes in legislation occur or new best practice evidence becomes available.

9. REFERENCES *(if relevant)*

NHS England (2024) Addendumon high consequence infectious disease (HCID) personal protective equipment (PPE) https://www.england.nhs.uk/national-infection-prevention-and-control-manual-nipcm-for-england/addendum-on-hcid-ppe/ (Accessed 26.02.2025)

- NHS England (2023) National infection prevention and control manual for England. Available from: https://www.england.nhs.uk/national-infection-prevention-and-control-manual-nipcm-for-england/ (Accessed 26.02.2025)

- PHE (2015) Advisory Committee on Dangerous Pathogens: Management of Hazard Group 4 viral haemorrhagic fevers and similar human infectious diseases of high consequence. Available from: Viral haemorrhagic fever: ACDP algorithm and guidance on management of patients - GOV.UK (www.gov.uk) (Accessed 26.02.2025)

- UKHSA (2016) Viral haemorrhagic fevers: epidemiology, characteristics, diagnosis and management. Available from: Viral haemorrhagic fevers: epidemiology, characteristics, diagnosis and management - GOV.UK (www.gov.uk) (Accessed 26.02.2025)

- UKHSA (2025) Lassa fever: origins, reservoirs, transmission and guidelines. Available from: Lassa fever: origins, reservoirs, transmission and guidelines - GOV.UK (www.gov.uk) (Accessed 25.02.2025)

- UKHSA (2023) High consequence infectious diseases (HCID) Available from: High consequence infectious diseases (HCID) - GOV.UK (www.gov.uk) (Accessed 26.02.206)

Information

Imported Fever Service:
Doctors can contact the IFS (after consultation with local microbiologist/virologist) on 0844 778 8990 for direct access to on call experts. Available from: https://www.gov.uk/imported-fever-service-ifs (Accessed 26.02.2025)

High Consequence Infectious Disease Units

There are 2 principal Contact HCID Treatment Centres in England:
- the Royal Free London High Level Isolation Unit (HLIU)
- the Newcastle Royal Victoria Infirmary HLIU.

Further support for managing confirmed contact HCID cases is provided by the Royal Liverpool Hospital and the Royal Hallamshire Hospital, Sheffield.

Airborne HCIDs

There are 5 interim Airborne HCID Treatment Centres in England. Adult and paediatric services are provided by 7 NHS Trusts:
- Guy's and St Thomas' NHS Foundation Trust (adult and paediatric services)
- Royal Free London NHS Foundation Trust, with a paediatric service provided by Imperial College Healthcare NHS Foundation Trust
- Royal Liverpool and Broadgreen University Hospitals NHS Trust, with a paediatric service provided by Alder Hey Children's NHS Foundation Trust
- Newcastle upon Tyne Hospitals NHS Foundation Trust (adult and paediatric services)
- Sheffield Teaching Hospitals NHS Foundation Trust (adult service only)

Case transfer arrangements

Hospital clinicians seeking to transfer confirmed HCID cases, or discuss the transfer of highly probable HCID cases, should contact the NHS England EPRR Duty Officer. It is expected that each case will have been discussed with the Imported Fever Service before discussing transfer.

10. ASSOCIATED POLICIES & PROCEDURES *(To include but not limited to)*

- Care of the Cadaver

11. AUTHOR

Infection Prevention & Control 2025

12. EQUALITY & DIVERSITY IMPACT ASSESSMENT

In reviewing this policy, the HR Policy Group considered, as a minimum, the following questions:

- Are the aims of this policy clear?
- Are responsibilities clearly identified?
- Has the policy been reviewed to ascertain any potential discrimination?
- Are there any specific groups impacted upon?
- Is this impact positive or negative?
- Could any impact constitute unlawful discrimination?
- Are communication proposals adequate?
- Does training need to be given? If so is this planned?

Adverse impact has been considered for age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion and belief, sex, sexual orientation.

13. DOCUMENT CONTROL SHEET

Name of Document:	Policy for the management of patients with viral haemorrhagic fever
Version:	9
File Location / Document Name:	ECCHO
Date Of This Version:	Version 20.03.2025
Produced By (Designation):	Infection Prevention & Control
Reviewed By:	Infection Prevention & Control Committee
Synopsis And Outcomes of Consultation Undertaken:	Changes relating to relevant committees/groups involved in ratification processes.
Synopsis And Outcomes of Equality and Diversity Impact Assessment:	No specific issues. National EIA gives more details on measures to reduce HCAIs.
Ratified By (Committee):-	IPACC
Date Ratified:	March 2025

Distribute To:	Policies Group
Date Due for Review:	March 2027
Enquiries To:	Infectionprevention@ecchcic.nhs.uk
Approved by Appropriate Group/Committee **Approved by Policy Group** **Presented to IGC for information**	☐ Date: ☐ Date: ☐ Date:

Version Control

Version Date	Version No.	Author/ Reviewer	Comments
March 2011	2	IPCT	Style changed
February 2013	3	IPCT	Revised HPA guidance July 2012
March 2015	4	IPCT	
February 2017	5	IPCT	Minor tweaks
December 2018	6	IPCT	
June 2021	7	IPCT	Minor tweaks
March 2023	8	IPCT	Update of tables and references
March	9	IPCT	Update of HCIDs, PPE required, care of the deceased,list of AGPs and references.