## VIRAL HAEMORRHAGIC FEVERS POLICY

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<thead>
<tr>
<th>Policy Type</th>
<th>Clinical Infection prevention and control</th>
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<td><strong>Directorate</strong></td>
<td>Corporate Nursing</td>
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<tr>
<td><strong>Policy Owner</strong></td>
<td>Chief Nurse including Midwifery and Allied Health Professionals</td>
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<tr>
<td><strong>Policy Author</strong></td>
<td>Infection Prevention and Control Doctor</td>
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<td><strong>Next Author Review Date</strong></td>
<td>1&lt;sup&gt;st&lt;/sup&gt; June 2023</td>
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<tr>
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<td>Policy Management Sub-Committee 15&lt;sup&gt;th&lt;/sup&gt; November 2019</td>
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‘During the COVID19 crisis, please read the policies in conjunction with any updates provided by National Guidance, which we are actively seeking to incorporate into policies through the Clinical Ethics Advisory Group and where necessary other relevant Oversight Groups’
**DOCUMENT HISTORY**

(Procedural document version numbering convention will follow the following format. Whole numbers for approved versions, e.g. 1.0, 2.0, 3.0 etc. With decimals being used to represent the current working draft version, e.g. 1.1, 1.2, 1.3, 1.4 etc. For example, when writing a procedural document for the first time – the initial draft will be version 0.1)

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<tr>
<th>Date of Issue</th>
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<th>Date Approved</th>
<th>Director Responsible for Change</th>
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<td>Director of Nursing</td>
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NB This policy relates to the Isle of Wight NHS Trust hereafter referred to as the Trust
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1 Executive Summary

Viral haemorrhagic fevers are rarely encountered in the UK, but can be problematic in those returning from travel abroad in areas where these diseases are found. This policy outlines the assessment and management of patients returning from foreign countries presenting with fever, in order to minimize the risk of spread of these serious and transmissible infections to others.

Risk assessment is a legal obligation and is summarized in Figure 1 (7.2).

Appendix A gives the information most likely to be needed for the initial management of a patient classified as a high possibility of VHF and appendix B gives an easy to use overview of the personal protective equipment required.

Where VHF risk is identified, discuss with the duty microbiologist urgently.

2 Introduction

Viral haemorrhagic fevers such as Lassa Fever, Ebola, Marburg and Crimean Congo Haemorrhagic Fever are severe life-threatening viral diseases that have been reported in parts of Africa, South America, the Middle East and Eastern Europe. As the environmental conditions in the UK do not support the natural reservoirs or vectors, these infections are found only in patients who have recently returned from specific areas in the world.

Though VHFs are rare in the UK, they are of particular importance in a hospital setting as they can spread readily to patients and healthcare workers without implementation of control measures. Appropriate risk assessment and implementation of appropriate infection control precautions are therefore key in managing these diseases.

3 Definitions

ACDP Advisory Committee on Dangerous Pathogens
PHE Public Health England
VHF Viral Haemorrhagic Fever
CCHF Crimean-Congo Haemorrhagic fever
HLIU High Level Isolation Unit
PPE Personal Protective Equipment
FFP3 Filtering Face Piece 3
IPCT Infection Prevention and Control Team
NIV Non-Invasive Ventilation

4 Scope

Applies to the care of patients attending hospital and to all healthcare staff working in clinical areas throughout the organisation.
5  Purpose

In line with the requirements of the Health and Social Care Act 2008 Code of Practice, this policy refers to the latest guidance from the Advisory Committee for Dangerous Pathogens (ACDP) regarding:

- The risk assessment and management of patients in the United Kingdom in whom infection with a viral haemorrhagic fever (VHF) should be considered or is confirmed

  And aims to

- Eliminate or minimise the risk of transmission to healthcare workers and others coming into contact with an infected patient in the hospital or their samples

6  Roles and Responsibilities

6.1  Admitting physicians and doctors

All admitting physicians and doctors MUST:

- Take an appropriate travel history and consider diagnosis of VHF as part of good clinical care of patients returning from endemic countries with fever, including risk assessment as appropriate.
- Inform and seek advice from a senior colleague without delay where the diagnosis needs to be considered.
- Inform public health, the on-call microbiologist and pathology laboratories immediately when indicated by the risk assessment.

6.2  All staff involved in the assessment, management and care of a patient in whom the diagnosis of VHF is being considered MUST:

Follow the measures described in this policy, including appropriate personal protective equipment use, obtaining training where required.

6.3  Consultant Medical Microbiologist

Provide advice on management and diagnosis including liaison with reference laboratories and infectious disease experts (including provision of out of hours infection control advice).

6.4  Infection Prevention and Control Team

In conjunction with the microbiologist, provide advice on infection control measures.

6.5  Site manager on call

Ensuring appropriate placement of patients assessed as possible VHF risk (including provision of the most appropriate isolation room as per Infection Control Team and Consultant Microbiologist advice).

6.6  Occupational Health Team

Liaison with and monitoring of staff contacts of patients with VHF, providing information and guidance to staff contacts in conjunction with the IPCT and Public Health team.
7 Policy detail/Course of Action

7.1 Epidemiology and Transmission of VHF

There are a wide range of viruses which can cause VHFs. Human-to-human transmission is of greatest concern for the following viruses:

- Ebola
- Marburg
- Lassa
- Crimean Congo Haemorrhagic Fever (CCHF)

Lassa, Ebola and Marburg are found in West or Central Africa, whereas CCHF is more widely distributed including Central and Eastern Europe, Central Asia and the Middle East as well as Africa. Further details on their epidemiology can be found on the following websites:

- Public Health England
- Travax
- NaTHNaC
- ProMed
- WHO.

Transmission in healthcare settings

The main routes of transmission in the healthcare setting are direct contact (through broken skin or mucous membranes) with blood or body fluids and indirect contact with environments contaminated with splashes or droplets of blood or body fluids. There is no circumstantial or epidemiological evidence of an aerosol transmission risk.

7.2 Patient Risk Assessment

Risk assessment is a legal obligation and must be carried out for any patient with a fever and travel or relevant exposure history following the algorithm in figure 1 (7.2, page 8) or follow links below.

See Appendix A protocol for initial assessment and placement of patients with possible VHF risk.

In the UK, infection with VHF will only occur in those who have

- travelled to an area where VHF occurs;
- been exposed to a patient or animal infected with VHF (including worked in a laboratory with the infectious agents of VHF);

How to conduct the patient risk assessment

- The patient risk assessment should 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.
- Standard precautions and good infection control are paramount to ensure staff are not put at risk whilst the initial risk assessment is carried out.
- For any patient who has had a fever ≥ 37.5°C or history of fever in the previous 24 hours AND a travel history or epidemiological exposure within 21 days, follow the patient risk assessment algorithm. (Figure 1)
The patient’s risk category

The patient will be categorized as one of the following:

- Unlikely to have a VHF (see section 7.3)
- Low possibility of VHF (see section 7.4)
- High possibility of VHF (see section 7.5)
- Confirmed VHF (see section 7.6)

Figure 1: PHE Risk assessment algorithm (or access via links)
VIRAL HEMORRHAGIC FEVERS RISK ASSESSMENT (Version 6: 15.11.2015)

**VHF ENDemic COUNTRIES**


- Has the patient traveled to any area where there is a current VHF outbreak? (http://www.who.int/csr/disease/hemorrhagic-fever/poster-countries/en/) OR
- Has the patient lived or worked in bush or rural conditions in an area where Lassa Fever is endemic? (https://www.euro.who.int/en/health-topics/disease-prevention/viral-haemorrhagic-fevers/outbreaks-and-risk-inocations) OR
- Has the patient traveled to an area where Crimean-Congo Haemorrhagic fever is endemic? (http://www.who.int/wprn/en/) OR
- Has the patient traveled to an area where Rift Valley Fever is endemic? (http://www.cdc.gov/riftvalleyfever) OR
- Has the patient been to an area where Rift Valley Fever is endemic? (http://www.cdc.gov) OR
- Has the patient been to an area where Rift Valley Fever is endemic? (http://www.cdc.gov)

**HIGH POSSIBILITY OF VHF**

- COLD PATIENT IN A SIDE ROOM
- Urgent Medico-virological investigation
- Full blood count, U&Es, CRP, Dengue, HIV, Hepatitis A+B+C, Rabies, Leptospirosis, Malaria, CMV, toxoplasmosis, Brucellosis, C. trachomatis, HSV
- Screen for possible VHF case (for prompt waste disposal purposes if confirmed)

**LOW POSSIBILITY OF VHF**

- Urgent Medico-virological investigation
- Urgent Medico-virological investigation
- Screen for possible VHF case (for prompt waste disposal purposes if confirmed)

**INFECTION CONTROL PERSONAL PROTECTION MEASURES**

**PERSONNEL RISK**

Standard precautions apply:
- Hand hygiene, gowns, protective aprons, goggles, fluid-resistant surgical masks for all staff.

**STAFF AT RISK**

- Hand hygiene, double gloves, fluid-resistant disposable aprons, fluid-resistant surgical mask for all staff.
- Use of protective aprons, fluid-resistant surgical mask for all staff.

**PREVENTION OF ASPIRATION**

- Position head up, aspiration precautions taken.
- Inhaled material should be aspirated immediately.

**REFERRAL**

- Local health protection team
- Infection control team
- Further diagnostic tests performed
- Follow-up VHF test result
- Review isolation
7.3 Patients unlikely to have VHF infection

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.

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:

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

7.4 Management of a patient categorised as ‘Low Possibility of VHF’

- A senior member of the medical team who is responsible for the acute care of the patient should be the lead clinician;
- Infection control measures appropriate to the patient’s risk category and clinical care procedures should be put in place;
- Instigate urgent malaria screen and local diagnostic investigations as normal;
- If an inpatient who is malaria negative has a continuing fever and relevant travel history, without diagnosis, discuss with Microbiology Consultant with a view to arranging VHF screen.

NOTE: It is recommended that, if a patient is bruised or bleeding, the lead clinician should manage the patient as ‘high possibility of VHF’

7.4.1 Infection control measures

- A febrile patient categorized as ‘low possibility of VHF’ should be placed in a single side room immediately to limit contact until the possibility of transmissible infection has been ruled out. The side room should have dedicated en-suite facilities or at least a dedicated commode.
- The level of staff protection required is dependent on the patient’s symptoms and procedures being undertaken as follows (Table 1):

<table>
<thead>
<tr>
<th>Table 1: PPE for ‘Low Possibility of VHF’</th>
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<td><strong>Staff protection</strong></td>
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<tr>
<td>Standard precautions (including treatment of laundry and waste as category B infectious waste)</td>
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<tr>
<td>Additional protection for splash inducing procedures (including line insertion, venepuncture,</td>
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**Potential aerosol-inducing procedures include:**
- Endotracheal intubation;
- Bronchoscopy
- Airway suctioning (perform closed suction post intubation)
- Positive pressure ventilation via face mask;
- Central line insertion
- High frequency oscillatory ventilation
- Diagnostic sputum induction

Single use disposable equipment and supplies should be used. Needle-free intravenous system should be used where available to eliminate the risk of needle stick injuries.

### 7.4.2 Diagnostic investigations

Liaison with the consultant microbiologist on call is essential regarding VHF screen. Testing of ‘routine’ specimens taken for patient management may be conducted locally in line with usual procedure. The overall risk to laboratory workers from specimens from these patients is considered to be minimal and specimens may be processed at containment level 2 (CL 2). Analysis of specimens should not be delayed whilst awaiting the results of VHF tests.

Investigations required will include:
- URGENT Malaria investigations (contact blood sciences biomedical scientist on call);
- Other investigations, as appropriate, may include full blood count, urea and electrolytes (U&Es), liver function tests (LFTs), glucose, C-reactive proteins (CRP), coagulation studies, urine, stool and blood cultures, and chest x-ray (CXR).

**If the patient has extensive brusing or active bleeding, they should be regarded as ‘high possibility of VHF’ and discussed with the Microbiology consultant.**

**Diagnostic test results and subsequent patient management**

1. If the malaria result is **positive**, treatment for malaria can begin immediately see [antibiotic guidelines](#) for summary or full [British Infection Association malaria treatment guidelines](#).

   The patient may be recategorised as ‘VHF unlikely’ but should be continually assessed due to the possibility of dual infection with a VHF.

2. If the malaria test is negative but an alternative diagnosis has been made and/or the patient becomes apyrexial, then the patient can be managed locally.

3. If the malaria result is negative, the patient remains pyrexial (≥37.5°C) and no diagnosis has been made, the case should be discussed with the duty
Microbiology Consultant who should consider discussion of VHF testing with Imported Fever Service (0844 7788990).

4. **If the VHF screen is negative,** the possibility of the patient having a VHF infection should be maintained until an alternative diagnosis is confirmed. The patient should therefore remain in a single side room, and the infection control measures should be continued.

5. **If the VHF screen is positive,** urgent action is required (see section 7.6).

### 7.5 Management of a patient categorized as “High Possibility of VHF”

It is recommended that, if a patient is bruised or bleeding or has uncontrolled diarrhoea or uncontrolled vomiting or a cough, the lead clinician should have an urgent discussion with the London HLIU (High Level Isolation Unit) concerning patient management and to consider early transfer to the HLIU (see Appendix C for contact details)

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

- The patient should be isolated in a single side room immediately (see Isolation box in Appendix A);

- Carry out an urgent *malaria screen* (contact blood sciences biomedical scientist on call), and local diagnostic investigations as appropriate; inform laboratory staff before sending samples so they can implement appropriate precautions including waste disposal (see laboratory protocols).

- If malaria test is negative, discuss with Microbiology Consultant on duty (see Appendix A “Risk assessment and history” box for information required). Microbiology Consultant to arrange VHF screen with Imported Fever Service (IFS)

- If malaria test is positive and the patient had returned from a country affected by a current VHF outbreak, then dual infection should be considered and discussed with the microbiology consultant

- Contact Local Public Health England (see Appendix C):
  - 0344 225 3861 option 2 (in office hours)
  - 0844 9670082 (out of hours).

#### 7.5.1 Infection control measures

The isolation of the patient in a single room supplemented by appropriate PPE use (as per Table 2 (below and appendix B), and see [here on intranet](#) for PPE donning and doffing procedures) are key risk control measures.

- The patient should be placed in a single side room (isolation room) immediately. See “Isolation” box in Appendix A.
• Transfer patient on a clean bed from either the bed store or the destination isolation room (which should then remain in the isolation room pending the VHF results)

• Wear personal protective equipment (PPE) during transfer (as per table 2)

• An additional member of staff (wearing PPE) should carry a spillage kit during the transfer to ensure any body fluid spillages en-route are dealt with promptly (dispose of waste as below).

• The number of staff in contact with the patient should be restricted.

<table>
<thead>
<tr>
<th>Table 2: PPE for ‘HIGH possibility of VHF’ (wear over scrubs)</th>
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<tr>
<td>Staff protection</td>
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| Standard precautions plus droplet precautions | • Hand hygiene  
    • Double gloves  
    • Fluid repellent disposable coverall or gown  
    • Full length plastic apron over coverall/gown  
    • Head cover e.g. surgical cap  
    • Fluid repellent footwear e.g. surgical boots/shoe covers  
    • Full face shield or goggles  
    • Fluid repellent FFP3 respirator used as splash protection.  
    (If the respirator is to be used as respiratory protection when managing a patient with infections known to be transmitted via the airborne route, it must be worn as per manufacturer’s recommendations) |

Checklists and illustrations for donning and doffing procedures for the Table 2 PPE can be found on the Infection Control Website at:

Staff awareness of risk
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 a VHF if infection is confirmed
• That virus may be present:
  o in blood  
  o in body fluids, including urine  
  o on contaminated instruments and equipment  
  o in waste  
  o on contaminated clothing
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.

**Equipment**
Single use disposable equipment and supplies should be used. The use of a needle-free intravenous system to eliminate the risk of needle stick injuries should also be used where available. Reusable equipment should not be taken out of the room.

**Laundry**
The use of disposable linen should be used where possible when caring for a patient with a 'high possibility of' or 'confirmed' VHF infection. This linen must be treated and disposed of as category A infectious waste. Where re-useable linen has been used for patients with a 'high possibility of' or 'confirmed' VHF infection, the linen should not be returned to a laundry and must be treated and disposed of as category A infectious waste.

**Crockery and Cutlery**
Disposable crockery and cutlery should be used where possible for patients categorized as a 'high possibility of' or 'confirmed' VHF infection. Items should be disposed of as Category A waste:

**Waste Disposal**
All waste from patients from patients with a 'confirmed' VHF infection is classified as Category A infectious waste, and the guidance for Category A infectious waste as set out in HTM (Health Technical Memorandum) 07-01: Safe management of Healthcare Waste should be followed. For patients categorized as 'high possibility of' VHF infection, waste should also be managed as Category A unless it can be safely segregated and stored pending patient diagnosis (IPCT and Waste Team guidance should be sought).

- All such waste (including used PPE and commode waste) should be disposed of in yellow bag.
- A clinical waste bin should be placed inside the room near the door and double-lined with yellow bags as an added precaution to prevent spills.
- Once the bag is ¾ full, tie the bag in the room using the swan neck method (twisting top part of bag before sealing with a knot).
- Once the waste bag is taken out of the room, it should immediately be placed in the cardboard or rigid clinical waste container provided by the Waste Team.
- Yellow bags and appropriate waste containers are available from the Waste Team or can be accessed out of hours by the Bed management team.
- Do not store this type of waste on the ward or in the ward’s waste cupboards.

**Cleaning and Decontamination**
For patients classified as high possibility of VHF, cleaning of the patient environment and equipment within their room should be delayed wherever possible until the VHF screen results are known (which should be a matter of hours). While the VHF result is unknown, cleanliness staff should not enter the room for any routine cleaning, and
would only be required in exceptional circumstances (e.g. significant delay in obtaining the VHF result) which will be on the specific advice of the IPCT (after discussion with the ward team and hotel services manager) with PPE to be worn in line with the above guidance.

IPCT advice must be sought before any cleaning of a room from which a high possibility patient has been transferred out of.

**Toilet/Commode Use**
If the isolation room does not have an en-suite toilet, a dedicated commode should be used with a disposable pan (or disposable bed-pan for non-ambulant patients). After use, the contents are to be solidified with high-absorbency gel and then disposed of as per the waste disposal advice above. Toilets and commodes should be disinfected with hypochlorite containing 10,000ppm available chlorine at least daily, preferably after each use, and upon patient discharge.

### 7.5.2 Diagnostic investigations

There is a slightly higher risk of VHF infection from collecting and handling specimens from patients categorized as ‘high possibility of VHF’ and those with a positive VHF screen, therefore:

- Specimens taken for laboratory analysis should be kept to the minimum necessary for patient management and diagnostic evaluation. Samples must only be sent after informing the relevant laboratory.

**Urgent VHF screen.**

1. Discuss the case with the on-call microbiologist, who will contact the Imported Fever Service regarding arranging urgent testing of patient specimens. See Appendix A “Risk Assessment and History” for the list of information required by the microbiologist including travel and other risk factors.

2. The screen will usually involve:
   - Serum (clotted blood) (4.5ml yellow top serum separation gel tube)
   - EDTA blood (4.5ml purple EDTA tube)
   - Urine in white universal container (but don’t delay sending of other samples to obtain urine)

Label “biohazard” AND “for fever service”

Notify microbiology laboratory (ext 4815) in hours or on call blood sciences biomedical scientist via switch out of hours when samples have been taken.

Other investigations (to be performed locally):
- URGENT Malaria investigations;
- Full blood count (FBC);
- Urea and electrolytes (U&E);
- Liver function tests (LFTs) including AST;
- Coagulation screen
- Blood glucose;
- Blood cultures;
- Chest X-Ray (CXR) (patient not to leave room): if essential, portable CXR in the isolation room with appropriate PPE use by radiographer over their lead
apron; machine and equipment including lead apron should be decontaminated with actichlor-plus in the ante room of the isolation room followed by PPE disposal and hand hygiene.

It is important to inform the laboratory to ensure that appropriate specimen handling and correct waste disposal procedures are followed. Original patient specimens should be retained by the laboratory and provision made for disposal as category A waste in the event that VHF is subsequently confirmed.

Specimens from patients assessed as high risk for VHF should not be processed via point of care machines outside of the laboratory.

**Sample collection**

There is a slightly higher risk of VHF infection from collecting and handling specimens from patients categorized as ‘high possibility of VHF’ and those with a positive VHF screen, therefore:

- Specimens taken for laboratory analysis should be kept to the minimum necessary for patient management and diagnostic evaluation.
- Clinicians should discuss with the appropriate specialist for each laboratory area before sending any samples.
- Label samples as “biohazard” from such patients.
- Label samples in the room (leave pen in room) after taking and pass samples out of room directly into a specimen bag (with request form already filled in outside the room) held open by another member of staff outside the room door, who should wear gloves, seal the specimen in the sample bag and place directly into a red specimen box, dispose of gloves followed by hand hygiene.
- Laboratory staff should be notified prior to receipt of all specimens from patients with a ‘high possibility of VHF’.
- Specimens should not be sent on automatic transport systems (e.g. pneumatic transport systems) and should transported to the laboratory in a sealed red specimen collection containers by a responsible person.

7.6 **Management of a patient with a positive VHF screen**

A patient who has had a positive VHF screen result should be managed in an HLIU, unless exceptional circumstances prevent transfer of the patient;

If a patient has a positive VHF screen result, the following urgent actions are required:

- Restrict the number of staff in contact with the patient;
- Compile a list of all staff with exposure.
- All those in contact with the patient must be informed of the positive results.
- All staff in contact with the patient or isolation room to wear PPE as per Table 2 (7.5.1)
- Notify local Health Protection Team

- An Incident Control Team will need to be convened and should include representatives from all involved parties, including the local public health body and the hospital Trust (including IPCT, lead clinicians, nursing staff and managers from involved clinical areas, Occupational Health, Communications
The lead for this will depend on the particular situation. Roles of this team include:

- To determine who is responsible for the assessment, categorization and management of contacts, including those outside the UK, the actions to be taken and the advice to be given;
- To determine who is responsible for media handling; agree all key media messages between all parties (including external bodies);
- Refer to the outbreak policy regarding considerations required for Communications (internal and external).

- Terminal disinfection procedures for areas where a confirmed VHF patient has been discharged from should be discussed with the IPCT who will liaise with the London HLIU.

- Where the condition of the patient is so serious that transfer to the HLIU is not practical, enhanced risk assessment and control measures will need to be taken and the clinical team and the infection control team must discuss further management with the Health and Safety Executive and experts at the HLIU in London.

8 Consultation

The policy will be circulated to members of the infection prevention and control committee, occupational health and relevant laboratory personnel for consultation.

9 Training

This VHF policy has a mandatory training requirement as part of the mandatory infection control training. In the event of awareness of global VHF ‘outbreak’, more intensive training will be implemented utilising the existing local resources and most up to date national guidance.

10 Monitoring Compliance and Effectiveness

Audit of compliance with policy will be carried out by the IPCT should a case requiring implementation of this policy occur. Findings will be reported to infection prevention and control committee.

11 Links to other Organisational Documents

- Personal protective equipment for direct patient care Policy
- Admission, Transfer and Discharge Policy
- Isolation Policy
- Outbreak Policy
- Waste Disposal policy
- Laboratory standard operating procedure for VHF
- Sharps handling policy
12 References


13 Appendices
APPENDIX A

PROTOCOL FOR INITIAL ASSESSMENT AND PLACEMENT OF PATIENT WITH POSSIBLE VHF RISK

PRE-HOSPITAL

If a paramedic is made aware at any stage that the patient they are attending could be a risk for VHF then they should:
Use standard precautions as directed in table 1 (7.4.1) (unless extensive bruising/ active bleeding/ uncontrolled diarrhoea/ uncontrolled vomiting – use enhanced precautions as per table 2 (7.5.1)).
- Communicate the potential risk en route to facilitate patient placement in hospital
- Take the patient directly to the room organised for isolation by the safest route.

ISOLATION

- Individuals should be isolated in a side room straightaway. They should not sit in the general waiting room before being assessed.
- If ED or admitting team are informed that a patient who is on their way into hospital is a suspicion for VHF (i.e. by GP or paramedic), arrangements should be made to admit the patient directly to an isolation room (the site manager on call should be contacted to arrange this including provision of staffing for the area/room).
- If there is no prior warning of such a patient attending and suspicion only arises when the patient is already in the department:
  - Place the patient in a side room in ED/MAU (wherever the patient currently is) straightaway
  - Suspected VHF takes priority over any other isolation for infection, (move another patient out of a side room if no free room available without waiting for cleaning of the side room)
  - Take the suspected VHF patient directly into the room and explain that they must stay in that area/room with the door closed pending further assessment.
- The patient must not leave the isolation area/room until further assessment has been completed.
- Place isolation sign on door of room.
RISK ASSESSMENT AND HISTORY

- Initial assessment should be taken by the most senior clinician available (i.e. ED/MAU consultant or senior registrar/staff grade).
- Wear PPE as per standard precautions Table 1(7.4.1) unless symptoms suggestive of high risk (bleeding/bruising/uncontrolled diarrhoea or vomiting) in which case use precautions as per Table 2 (7.5.1).
- Assess history against the ADCP algorithm (Figure 1, (7.2)) to define level of risk.
- If any suspicion of VHF following the assessment, contact the duty Consultant microbiologist with the following information:
  - Patient details
    - Name
    - DOB
    - Address
    - Current location
  - Clinical signs and symptoms (including onset of fever)
  - Full travel history
    - countries and areas visited (including rural/urban) and dates of travel
    - activities undertaken e.g. medical/relief work, caves/water exposure
    - potential exposures
      - ill contacts
      - animal contacts/bites
    - tick bites
    - travel vaccinations & chemoprophylaxis
      - Yellow Fever/Japanese Encephalitis/Tick Borne Encephalitis vaccines
      - Malaria prophylaxis?
  - Other relevant risk factors
  - Relevant past medical history
FEVER SERVICE AND NOTIFICATION

If appropriate, the Consultant Microbiologist will then contact the fever service to discuss the case and arrange further testing (including determining urgency of VHF screen).

The lead clinician (i.e. ED/MAU consultant) should inform local Public Health England urgently where the patient has been identified as high possibility of VHF:
0344 225 3861 option 2 (in office hours)
0844 9670082 (out of hours).
### Table 1: PPE for ‘Low Possibility of VHF’

<table>
<thead>
<tr>
<th>Staff protection</th>
<th>Control measures</th>
</tr>
</thead>
</table>
| **Standard** precautions (including treatment of laundry and waste as category B infectious waste) | • Hand hygiene  
  • Gloves  
  • Plastic apron |
| Additional protection for splash inducing procedures (including line insertion, venepuncture, arterial blood gas) | • Fluid repellent surgical facemask  
  • Eye protection |
| Additional protection for potential aerosol generating procedures* based on risk assessment for other infections known to be transmitted by the airborne route | • FFP3 respirator mask  
  • Eye protection |

### Table 2: PPE for ‘HIGH possibility of VHF’ (wear over scrubs)

<table>
<thead>
<tr>
<th>Staff protection</th>
<th>Control measures</th>
</tr>
</thead>
</table>
| **Standard** precautions plus droplet precautions | • Hand hygiene  
  • Double gloves  
  • Fluid repellent disposable coverall or gown  
  • Full length plastic apron over coverall/gown  
  • Head cover e.g. surgical cap  
  • Fluid repellent footwear e.g. surgical boots/shoe covers  
  • Full face shield or goggles  
  • Fluid repellent FFP3 respirator used as splash protection.  
  (If the respirator is to be used as respiratory protection when managing a patient with infections known to be transmitted via the airborne route, it must be worn as per manufacturer’s recommendations) |

Checklists and illustrations for donning and doffing procedures for the Table 2 PPE can be found on the Infection Control Website at:  
CONTACT DETAILS

HLIU (High Level Isolation Unit)
Royal Free London NHS Foundation Trust, London
Telephone (24 hours, ask for infectious disease consultant on call) 020 7794 0500 or 0844 8480700 (local rate number when calling from outside London).
www.royalfree.nhs.uk

Imported Fever Service (only if advised by Consultant Microbiologist)
0844 7788990

Local Public Health England
0344 225 3861 in office hours option 2
0844 9670082 (out of hours).

Microbiology Consultant
Mon –Fri 0900-1700: ext 4807
Out of hours: via switchboard
Appendix D

Financial and Resourcing Impact Assessment on Policy Implementation

NB this form must be completed where the introduction of this policy will have either a positive or negative impact on resources. Therefore this form should not be completed where the resources are already deployed and the introduction of this policy will have no further resourcing impact.

<table>
<thead>
<tr>
<th>Document title</th>
<th>VHF policy</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Totals</th>
<th>WTE</th>
<th>Recurring £</th>
<th>Non-Recurring £</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manpower Costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training Staff</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Equipment &amp; Provision of resources</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of Impact: nil new

Risk Management Issues: Minimise risk to staff, patients and visitors from infection

Benefits / Savings to the organisation:

Equality Impact Assessment

- Has this been appropriately carried out? YES
- Are there any reported equality issues? NO

If “YES” please specify:

Use additional sheets if necessary.

Please include all associated costs where an impact on implementing this policy has been considered. A checklist is included for guidance but is not comprehensive so please ensure you have thought through the impact on staffing, training and equipment carefully and that ALL aspects are covered.

<table>
<thead>
<tr>
<th>Manpower</th>
<th>WTE</th>
<th>Recurring £</th>
<th>Non-Recurring £</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational running costs</td>
<td></td>
<td></td>
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</tbody>
</table>

Totals:

<table>
<thead>
<tr>
<th>Staff Training Impact</th>
<th>Recurring £</th>
<th>Non-Recurring £</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totals:</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment and Provision of Resources</th>
<th>Recurring £ *</th>
<th>Non-Recurring £</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation / facilities needed</td>
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</table>

* If applicable
<table>
<thead>
<tr>
<th>Item</th>
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<tbody>
<tr>
<td>Building alterations (extensions/new)</td>
<td></td>
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<tr>
<td>IT Hardware / software / licences</td>
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<tr>
<td>Medical equipment</td>
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<tr>
<td>Stationery / publicity</td>
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<td>Travel costs</td>
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<td>Utilities e.g. telephones</td>
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<tr>
<td>Process change</td>
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<td>Rolling replacement of equipment</td>
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<td>Equipment maintenance</td>
<td></td>
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<tr>
<td>Marketing – booklets/posters/handouts, etc</td>
<td></td>
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<tr>
<td><strong>Totals:</strong></td>
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<tr>
<td>- Capital implications £5,000 with life expectancy of more than one year.</td>
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</tbody>
</table>

Funding / costs checked & agreed by finance:  
Signature & date of financial accountant:  
Funding / costs have been agreed and are in place:  
Signature of appropriate Executive or Associate Director:
Equality Impact Assessment (EIA) Screening Tool

<table>
<thead>
<tr>
<th>Document Title:</th>
<th>VHF Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose of document</td>
<td>Minimise risk of infection</td>
</tr>
<tr>
<td>Target Audience</td>
<td>All staff involved in the assessment, management and care of a patient in whom the diagnosis of VHF is being considered</td>
</tr>
<tr>
<td>Person or Committee undertaken the Equality Impact Assessment</td>
<td>E Macnaughton</td>
</tr>
</tbody>
</table>

1. To be completed and attached to all procedural/policy documents created within individual services.

2. Does the document have, or have the potential to deliver differential outcomes or affect in an adverse way any of the groups listed below? **No**

If no confirm underneath in relevant section the data and/or research which provides evidence e.g. JSNA, Workforce Profile, Quality Improvement Framework, Commissioning Intentions, etc.

If yes please detail underneath in relevant section and provide priority rating and determine if full EIA is required.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Positive Impact</th>
<th>Negative Impact</th>
<th>Reasons</th>
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<tbody>
<tr>
<td>Men</td>
<td></td>
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<td>Women</td>
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<td>Race</td>
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<td>Asian or Asian British People</td>
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<td>Black or Black British People</td>
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<td>Chinese people</td>
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<tr>
<td>People of Mixed Race</td>
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<td>White people (including Irish people)</td>
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<td>People with Physical Disabilities, Learning Disabilities or Mental Health</td>
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<td>Issues</td>
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<td><strong>Sexual Orientation</strong></td>
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<td>Transgender</td>
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<tr>
<td>Lesbian, Gay men and bisexual</td>
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<tr>
<td><strong>Age</strong></td>
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<tr>
<td>Children</td>
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<tr>
<td>Older People (60+)</td>
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<tr>
<td>Younger People (17 to 25 yrs)</td>
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<tr>
<td><strong>Faith Group</strong></td>
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<td><strong>Pregnancy &amp; Maternity</strong></td>
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<tr>
<td><strong>Equal Opportunities and/or improved relations</strong></td>
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Notes:
Faith groups cover a wide range of groupings, the most common of which are Buddhist, Christian, Hindus, Jews, Muslims and Sikhs. Consider faith categories individually and collectively when considering positive and negative impacts.

The categories used in the race section refer to those used in the 2001 Census. Consideration should be given to the specific communities within the broad categories such as Bangladeshi people and the needs of other communities that do not appear as separate categories in the Census, for example, Polish.

3. **Level of Impact**

If you have indicated that there is a negative impact, is that impact:

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
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<tbody>
<tr>
<td><strong>Legal</strong> (it is not discriminatory under anti-discriminatory law)</td>
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</tr>
<tr>
<td><strong>Intended</strong></td>
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</tbody>
</table>

If the negative impact is possibly discriminatory and not intended and/or of high impact then please complete a thorough assessment after completing the rest of this form.

3.1 Could you minimise or remove any negative impact that is of low significance? Explain how below:

3.2 Could you improve the strategy, function or policy positive impact? Explain how below:

3.3 If there is no evidence that this strategy, function or policy promotes equality of opportunity or improves relations – could it be adapted so it does? How? If not why not?

Scheduled for Full Impact Assessment

<table>
<thead>
<tr>
<th>Date:</th>
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</table>

Name of persons/group completing the full assessment

Date Initial Screening completed 10.1.19