## Viral Haemorrhagic Fever - Guideline for Risk Assessment & Management of Patients

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**Associated Trust Policies/ Procedural documents:**
- Standard Infection Control Policy & Procedures (Including Hand Hygiene)
- Infection Prevention and Control Policy
- Source Isolation Policy
- Decontamination Policy and Procedures
- Waste Management Policy
- Guidance for the Management of Suspected Cases of Severe Imported Respiratory Virus Infections Including Avian Influenza and MERS Cov. (Note this does not include pandemic Influenza)

**Key Words**
Ebola; Lassa; Marburg; Crimean Congo

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- Community Professional Leads, Senior Nurses and Matrons: 19th December 2016
- Infection Control & Decontamination Assurance Group: 24th January 2017
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<th>Infection Control Doctor / Consultant Microbiologist</th>
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1. **INTRODUCTION**

1.1 Patients presenting to hospital with a febrile illness who have travelled may be suffering from an imported infection. Serious infections include malaria, typhoid and typhus. Viral Haemorrhagic Fever needs to be considered as one of the many possible causes, and a risk assessment should be conducted to ensure that potential cases are identified swiftly. Febrile travellers with respiratory symptoms should be assessed using the Guidance for the Management of Suspected Cases of Severe Imported Respiratory Virus Infections Including Avian Influenza and MERS Cov.

1.2 Viral Haemorrhagic Fevers (VHFs) are severe and life-threatening viral diseases that have been reported in parts of Africa, South America, the Middle East and Eastern Europe. Examples include Lassa fever (LF), Crimean Congo Haemorrhagic Fever (CCHF), Ebola and Marburg disease but there are several other examples with restricted geographical distributions. (ACDP 2015)

1.3 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. Between 1970 and 2010 there have been 12 imported cases of LF and 3 of CCHF. More recently cases of Ebola haemorrhagic fever have occurred, as healthcare workers infected while caring for victims of an extensive outbreak in West Africa have been identified and treated in the isolation Unit at the Royal Free Hospital in London during 2014 and 2015. Much government guidance currently focuses on the Ebola Haemorrhagic Fever, but is equally valid to other VHFs especially for diagnosis and safety.

1.4 VHFs are of particular public health importance because they can spread within a hospital setting; they have a high case-fatality rate; they are difficult to recognise and detect rapidly; and there is limited knowledge of effective treatment. They are classified by the Advisory Committee on Dangerous Pathogens (ACDP) as Hazard Group 4 which requires the highest level of containment both for patients and for laboratory handling of known positive material.

1.5 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. This can be prevented using infection control procedures including isolation and appropriate personal protective equipment (PPE). Experts agree that there is no evidence that aerosol transmission from patients has occurred. There have been no cases of person-to-person transmission of a VHF in the UK.

1.6 **Failure to comply with this policy could result in disciplinary action.**

1.7 In the event of concerns that any of the information in this policy is still current, please check with the on-call microbiologist on bleep 176 or out of hours through the hospital switchboard.

2. **PURPOSE**

2.1 The purpose of this policy is to ensure that measures are in place to:

- rapidly identify patients at risk of infection with a VHF virus
- eliminate or minimise the risk of transmission to health care workers and others coming into contact with an infected patient by isolating and applying appropriate infection prevention & control measures
ensure that appropriate investigations are undertaken on patients suspected of having a VHF infection, including those to exclude other serious treatable infections such as malaria and typhoid

3. DEFINITIONS

3.1 Viral Haemorrhagic Fevers (VHFs) - severe and life-threatening viral diseases that are endemic in parts of Africa, South America, the Middle East and Eastern Europe.

3.2 Contact with VHF - exposure to an infected person or their blood and body fluids, excretions or tissues following the onset of their fever.

3.3 Lead Clinician – the doctor in clinical charge of a patient with or suspected of having VHF infection. Likely to be a consultant in the Emergency Department (ED) or Acute Medical Unit (AMU).

4. DUTIES AND RESPONSIBILITIES OF STAFF

4.1 The Chief Executive and Board of Directors are responsible for ensuring the provision of suitable and sufficient resources and facilities to enable effective management of a patient admitted with suspected or confirmed VHF.

4.2 The Directors of Infection Prevention and Control (DsIPC) are responsible for:
Providing expert guidance and advice to the Infection Prevention and Control Team, clinical and managerial staff about measures needed to protect staff and prevent infection being transmitted from a patient with VHF.

4.3 The lead clinician from the Emergency Department, Acute Medical Unit or clinical area / ward in which a potential VHF patient is accommodated is responsible for: ensuring that any patients who require a risk assessment for VHF have this performed in a timely fashion, and that appropriate actions are taken on the result of the risk assessment, with the support of the Microbiologists and Infection Prevention and Control Team. The lead clinician is identified from a group of volunteers and while performing this role in the care of a VHF patient should be free of other clinical responsibilities.

4.4 Infection Prevention & Control Team (with support from the DsIPC) are responsible for advising on infection control measures required to protect staff caring for patients with or at risk of VHF. Especially on the correct use and where necessary fitting of personal protective equipment.

4.5 The Infection Control Doctor and Consultant Microbiologists are responsible for providing advice on the diagnosis of VHF and other infections that may be present in patients at risk of VHF. Where appropriate they will liaise with specialist reference and tropical diseases authorities.

4.6 Patient Flow Manager and Site Management Team are responsible for organising patient movements if necessary to clear the rooms 1 & 2 on the isolation ward (Torridge ward) to provide accommodation for potential VHF a patient and staff caring for the patient.

4.7 The Security and Portering Teams are responsible for providing secure routes when patients identified at risk of VHF need to be moved in the Trust, for example from the Emergency Department or an ambulance to the Isolation Ward.

4.8 Isolation Ward (Torridge Ward) staff are responsible for the area in which potential
VHF patients will be cared for until they have an alternative diagnosis or are confirmed and transferred to a specialist centre for treatment. Torridge staff supplemented as necessary will provide the nucleus of nurses and doctors caring for potential VHF patients.

4.9 **Diagnostic Laboratory Staff**
- Microbiology Consultant and Biomedical Scientist staff are responsible for providing services to diagnose infections including blood cultures and liaising with the appropriate infection services and reference laboratories including the National Fever Service and the Rare and Imported Pathogens Laboratory, Porton Down for imported fever and VHF testing.
- Clinical Chemistry & Haematology Consultant and Biomedical Scientist staff are responsible for providing services for diagnosing and managing patients who are considered at risk of VHF. Investigations required may include urgent malaria investigation, full blood count, U&Es, LFTs, Clotting screen, CRP, glucose.
- Diagnostic Laboratory Managers are responsible for having a suitable risk assessment and procedure for processing high risk samples including those from patients who may have a VHF.

4.10 **The Trust Communications Team** are responsible for providing the necessary reports and press releases for the public and local and national press. This includes appropriate liaison with NHS England and Public Health England communications functions.

4.11 **The Consultant in Communicable Disease Control (CCDC) and Public Health England (PHE)** are responsible for the public health response in cases where VHF is very strongly suspected or confirmed. This includes identifying and following up potential contacts.

4.12 **Occupational Health Department** in liaison with PHE are responsible for following up staff who are contacts of a confirmed case of VHF.

5. **IDENTIFICATION AND RISK ASSESSMENT FOR PATIENTS WHO MAY BE INFECTED WITH A VIRAL HAEMORRHAGIC FEVER VIRUS**

5.1 All patients who present to primary or secondary care with a fever should be asked about a travel history to determine whether they are at risk of an imported infectious disease. Travel in the previous 21 days to an area where there may be VHF activity should lead to a risk assessment.

5.2 VHF infection is very rare in the UK and the symptoms of VHF infection in the initial stages are nonspecific. The people who need a VHF risk assessment are those with:

a) a fever of more than 38°C or history of fever in the previous 24 hours

AND

b) in the previous 21 days one or more of the exposures below

(i) travelled to an area where VHFs occur (see Appendix 1) 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.
5.3 The key aim is that patients should receive an appropriate risk assessment in a safe environment, minimising the risk of transmission to contacts, including healthcare staff. This allows the patient to be managed appropriately.

5.4 A VHF risk assessment should be conducted by a senior doctor to identify those patients who may have VHF and in whom further measures are appropriate. An algorithm for the risk assessment can be found at the PHE website at:-

5.5 People may present to healthcare in a variety of ways. They may be under surveillance by PHE having returned from an area with a known outbreak. Alternatively they may present to NHS 111, Primary Care, a NHS Walk-in Centre or Emergency Department, or they may be identified after admission to a hospital. They may also present in other ways, for example at ports or police stations. It is important for healthcare professionals in all these areas to be aware of the possibility and to conduct an appropriate risk assessment.


5.7 This risk assessment is updated from time to time and the up to date version should be consulted by using the link. The risk assessment should be conducted within the first hour of the patient being identified.

6. MANAGEMENT OF PATIENTS PRESENTING TO THE RD&E WHO ARE AT RISK FOR VHF

6.1 The aim is to control the movement of potential VHF patients presenting to the RD&E so that they receive the best care, safely, with exposure of as few staff to the potential risk of contamination as possible.

6.2 The preferred option is to admit potential patients, identified before admission, direct to the isolation ward (normally Torridge Ward). Alternatively patients may be seen in a designated area of the Emergency Department, and if admission is necessary then transfer them to the Isolation Ward. If identified after admission to hospital patients should be transferred as soon as practical and safe to the isolation ward.

6.3 People identified as potential VHF patients outside the RD&E who will require admission to hospital

6.3.1 The person who receives initial information about the patient should collect as much information about the patient as possible, including
- Referring source and contact details
- Patient identification
- Patient contact details including a mobile phone number if possible
- Details of any communication issues e.g. patients main language
- Dates of travel and countries visited
- Symptoms including fever.
6.3.2 If a patient who may have a VHF is identified, ideally they should be admitted directly to the RD&E isolation ward. Initially the Infection Control doctor or Medical Microbiologist on call should be informed (bleep 176 or via switchboard out of hours). Alternatively the infection control team may be contacted (Ext. 2355 or via switchboard out of hours).

6.3.3 The patient should not be transported to the hospital until the ward is fully prepared to receive him or her. Normally this process will take two hours. If the patient arrives before the ward is ready they may have to be held in the ambulance or if necessary may be initially taken to the Emergency Department, if for example they arrive by car or on foot and cannot practically wait outside.

6.3.4 Once notified of a potential patient, a co-ordination group should be established as soon as possible, consisting of at least
- Consultant Microbiologist
- Lead Infection Prevention and Control Nurse or deputy
- Lead Clinician
- Torridge Ward Matron
- Senior Manager and Nurse from the Medical Division
- Planning and Preparedness Manager
- Representatives from:
  - Site Management
  - Facilities
  - Operations
  - Domestic services
  - Portering
  - Communications

Out of hours, the duty manager should assemble the best team possible.

6.3.5 The co-ordination group will enable the isolation ward to prepare by transferring patients and cleaning to prepare the isolation rooms. Provision for additional staff as necessary, checking stock including PPE etc.

6.3.6 The lead VHF clinician should be identified from a list of volunteers held by the hospital switchboard. If possible this person should contact the patient. This will allow them to reassure the patient and to obtain detailed information to help with a risk assessment. If it is clear at this stage that the risk of VHF is not significant it may be possible to step down the procedure at this point, after discussion with the Microbiologist and if necessary liaison with PHE.

6.3.7 The Microbiologist will contact the National Imported Fever Service on 0844 7788990 as soon as sufficient information is available to establish communication discuss the case and establish whether it is likely that diagnostic samples for VHF are appropriate. It may also be helpful to establish contact with the PHE hub in Exeter on 0300 303 8162.

6.3.8 The ambulance service should be contacted through the hospital switchboard at the SWAST Control Room Clinical Hub. This will enable the appropriate Hazardous Area Response Team (HART) to be alerted. Information should include contact details for the patient if possible; as this will help them to determine the best way to collect the patient, and the estimated time that the ward will be ready to receive the patient. The HART should be informed of the correct entrance to bring the patient which for Torridge Ward is the ambulance access at A1, see Appendix 2.
6.3.9 Once the isolation ward is prepared and ready, SWAST should be informed and the patient collected. The Ambulance should be requested to advise the hospital when it will arrive in order to alert the reception team and the ward. The Ambulance should be informed of the correct entrance A1, and be met by a team to escort the patient securely by a planned route to the isolation ward, see Appendix 2.

6.3.10 The patient on arrival in Torridge ward should be received in the isolation room by a member of staff in full PPE, and reassured.

6.4 People identified as potential VHF patients in the Emergency Department

6.4.1 People who are identified as potential VHF patients in the Emergency Department should be directed to the designated single room for VHF assessment as promptly as possible.

6.4.2 A member of staff should don full PPE and then conduct a VHF risk assessment.

6.4.3 It is possible that the ED will be alerted to a patient before they arrive, in which case they should be met outside if possible and brought in through the ambulance entrance to the designated VHF room. If there is sufficient time the room should be cleared of unnecessary equipment, and the patient should be received in the room by a member of staff able to do the VHF risk assessment wearing full PPE.

6.4.4 On identification of a potential VHF patient either in ED or expected at ED the Microbiologist on Duty and the Infection Prevention and Control Team should be informed. They will attend the ED to provide support and initiate other measures as in 6.3.4-7 as necessary.

6.4.5 If following a VHF risk assessment there is a LOW or HIGH possibility of VHF (see section 7) and the patient needs to be admitted, then the patient should remain in the designated room until preparations can be completed for them to go to the isolation ward. Appropriate specimens can be collected during this period and taken to the Microbiology Laboratory – see section 7.

6.4.6 Once the isolation ward is ready the patient can be moved there – see Appendix 3.

6.4.7 If the patient has a significant risk of VHF it may still be possible for them to go home once appropriate specimens have been collected. This will depend on an appropriate assessment and after liaison with PHE. Suitable transport will also be necessary. It is likely that the details will depend on the circumstances of each case.

6.5 People identified as potential VHF patients following admission to the RD&E

6.5.1 If a person is identified as a potential case of VHF following admission to the RD&E the duty Microbiologist and the Infection Prevention and Control Team should be contacted as soon as possible.

6.5.2 The aim is to isolate the patient safely and appropriately as soon as possible and conduct a full risk assessment. The way in which this is done is likely to depend on the circumstances in each case.

6.5.3 A co-ordinating group should be established as in 6.3.4.

6.4.5 If following a VHF risk assessment there is a LOW or HIGH possibility of VHF (see section 7) and the patient needs to be transferred to the Isolation Ward. This would not occur until the ward was fully prepared and a safe route of transfer planned.
7. **RISK CATEGORIES AND MANAGEMENT**

7.1. The object of the **Risk Assessment** is to determine which of the following categories to assign the patient to:

- VHF UNLIKELY (see 7.6)
- LOW POSSIBILITY OF VHF (see 7.7)
- HIGH POSSIBILITY OF VHF (see 7.8)
- CONFIRMED VHF (see 6.5)

The actions that follow are determined by the risk assessment and are set out in the sections below.

7.2. The risk assessment must be led by a senior member of the team responsible for the acute care of patients, for example an ED or AMU consultant or senior doctor. This will normally be the designated lead clinician for the VHF incident. A consultant microbiologist may also need to be involved.

7.3. The risk assessment should follow the Viral Haemorrhagic Fevers Risk Assessment algorithm. Information on VHF endemic areas and links to recent updates on distribution are in Appendix 1 and also available from links on the algorithm itself. The risk assessment is dynamic in that it may change as a result of new symptoms, clinical investigations or diagnostic tests. The patient’s VHF risk category can change either way and it is important to note that a patient with a VHF infection can deteriorate rapidly.

7.4. If a potential VHF patient is identified it is prudent to use full protective personal protective equipment (PPE) as detailed in Appendix 4 for the initial assessment. This will allow the clinician performing the risk assessment to conduct a physical examination and take blood samples should the patient prove to have a high risk of VHF. After applying the algorithm patients are allocated a risk category and managed appropriately as outlined below.

7.5. Experience in the UK shows that the most likely diagnosis, in all “VHF” categories for patients with a fever and history of foreign travel will turn out to be malaria or a bacterial infection. It is essential that an urgent malaria test and blood cultures are undertaken in all cases, otherwise treatable serious infection may be missed.

7.6. **Patients who are risk assessed VHF UNLIKELY**

7.6.1. These patients should be managed appropriately to their presenting condition. Although highly unlikely to have VHF, these patients may still have a serious infection including malaria or another infectious disease. A malaria screen and blood cultures and other appropriate investigations should be taken. A microbiologist may be consulted about appropriate investigations e.g. dengue or rickettsial infection and if necessary organise investigations through the PHE Imported Fever Service.

7.6.2. **Infection Control**

   a) If admission is necessary patients should initially be admitted to a side room, preferably with an en-suite facility although this may not be required when a diagnosis is established.

   b) Standard contact infection control precautions must be used with gloves and aprons.

   c) Hand Hygiene with alcohol hand rub is appropriate unless the patient has diarrhoea in which case washing with soap and water should be used.
d) Eye protection and fluid repellent surgical facemask and for splash inducing procedures

7.6.3. **Pathology specimens**
   a) Standard procedures for the requesting and transportation of specimens can be used. Pathology specimens may be handled as normal in category 2 facilities.

7.6.4. **Reassessment**
   a) 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:
   b) Nosebleed
   c) Bloody diarrhoea
   d) Sudden rise in aspartate transaminase (AST)
   e) Sudden fall in platelets
   f) Clinical shock
   g) Rapidly increasing O2 requirements in the absence of other diagnosis

7.6.5. If recategorised take the actions in the appropriate section below.

7.7 **Patient’s categorised as LOW POSSIBILITY OF VHF**

7.7.1. If a patient develops bruising or bleeding, the lead clinician should have an urgent discussion with the High Security Infectious Disease Unit (HSIDU) at Royal Free Hampstead NHS Trust, London. Telephone 020 7794 0500 or 0844 8480700 and ask for infectious disease physician on call. The on call Microbiologist at the RD&E should also be informed, bleep 545 during working hours, out of working hours via RD&E switchboard. Manage as in 7.8.

7.7.2. **Infection Control**
   a) A patient categorised as LOW POSSIBILITY OF VHF should be isolated in a side room with dedicated en-suite facilities immediately. If available a lobbied side room on Torridge Ward with en-suite facilities should be used.

   b) Infection control precautions, these patients have minimal risk and standard precautions apply – as in table 1

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<th>Table 1</th>
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<td><strong>Staff protection</strong></td>
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<td>Standard precautions</td>
<td>• Hand hygiene</td>
</tr>
<tr>
<td></td>
<td>• Gloves</td>
</tr>
<tr>
<td></td>
<td>• Plastic apron</td>
</tr>
<tr>
<td>Additional protection for splash inducing procedures</td>
<td>• Fluid repellent surgical facemask</td>
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<tr>
<td></td>
<td>• Eye protection</td>
</tr>
<tr>
<td>Additional protection for potential aerosol generating procedures based on risk assessment for other infections known to be transmitted by aerosol.</td>
<td>• FFP3 respirator or EN certified equivalent</td>
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<td>• Eye protection</td>
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* Potential aerosol-or splash-inducing procedures include:
  - Endotracheal intubation
  - Bronchoscopy
  - Airway suctioning
- Positive pressure ventilation via face mask
- High frequency oscillatory ventilation
- Central line insertion
- Diagnostic sputum induction.

7.7.3. Pathology specimens
a) All samples from patients in the ‘LOW possibility of VHF’ category can be treated as standard samples, as the risk of VHF is minimal and an alternative diagnosis such as malaria is usually found. Specimens must be clearly labelled with clinical details.

b) 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. Analysis of specimens should not be delayed whilst awaiting the results of VHF screens. Routine laboratory tests should be carried out where possible in autoanalysers using standard practices and procedures at containment level 2.

c) Investigations required will include URGENT Malaria investigations. More than one malaria screen may be necessary. Other investigations, as locally appropriate, may include urine, stool and blood cultures, and chest x-ray (CXR). Liaison with microbiology is necessary to determine which further investigations are appropriate.

d) If symptoms suggestive of VHF develop then the patient should be categorised as high risk of VHF, and specimens should be handled as in 7.8

7.7.4. VHF investigations
a) If malaria tests are positive and the patient responds to treatment the patient may be re-categorised as “VHF unlikely” see section 7.6.

b) If the patient is malaria positive but fails to respond to appropriate malaria treatment, or is malaria negative and remains febrile (more than 38°C), or if features of VHF develop then an urgent VHF screen is required.
   - Features suggestive of VHF are;
     - 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

c) Specimens required for a VHF screen are 10mls of clotted blood (brown topped bottle) and 5mls EDTA (red topped tube). The Microbiology Laboratory will liaise with the Imported Fever Service Tel: 0844 7788990 and arrange for the specimen to be transported there urgently using a courier suitable for high risk specimens.

d) If the VHF screen is positive see section 7.8. If negative the patient should remain isolated with infection control precautions as in 7.7.2 until a diagnosis is confirmed or the patient is afebrile for 24 hours when changes appropriate to the diagnosis can be made.
7.8 Patients categorised as HIGH POSSIBILITY OF VHF

7.8.1. The patient should be managed by a consultant physician in liaison with a Consultant Microbiologist. In addition if bruising or bleeding is present the lead clinician should have an urgent discussion with the High Security Infectious Disease Unit at Royal Free Hampstead NHS Trust, London. Telephone 020 7794 0500 or 0844 8480700 and ask for infectious disease physician on call.

7.8.2. Urgent investigations should include urgent malaria investigation, full blood count (FBC), urea and electrolytes (U&E), liver function (LFT), clotting screen, C-reactive protein (CRP), glucose, blood cultures and an urgent VHF screen which should be requested in liaison with the Consultant Microbiologist.

7.8.3. Specimens required for a VHF screen are 10mls of clotted blood (brown topped bottle) and 5mls EDTA (red topped tube) See appendix 5 The Microbiology Laboratory will liaise with the Imported Fever Service Tel: 0844 7788990 and arrange for the specimen to be transported there urgently using a courier suitable for high risk specimens.

7.8.4. Infection Control

- The patient must be isolated in a single side room immediately. The side room should have dedicated en-suite facilities. It is preferable to use a lobbied side room on Torridge Ward with en suite facilities and monitored negative pressure.

- The number of staff in contact with the patient must be kept to a minimum and a record kept of staff in contact with the patient.

- Single use equipment and supplies should be used.

- Staff in contact with the patient should use full personal protective equipment as set out in table 2 and appendix 4, whatever the patients symptoms. It is essential that they are trained in using the PPE, fitted for the FFP3 respirator, and are confident in donning and doffing the clothing and equipment. In this situation the use of PPE will be monitored closely by trained staff who will check that the PPE is put on and taken off correctly using a check list. There is a Trust Video guide to using PPE appropriate for VHF on HUB [https://vimeo.com/192106279](https://vimeo.com/192106279) and check list for donning and doffing.

Table 2 Infection control measures for HIGH POSSIBILITY OF VHF

<table>
<thead>
<tr>
<th>Staff protection</th>
<th>Control measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full VHE precautions</td>
<td>• Hand hygiene</td>
</tr>
<tr>
<td>See Appendix 4</td>
<td>• Double gloves</td>
</tr>
<tr>
<td></td>
<td>• Fluid repellent disposable gown or suit</td>
</tr>
<tr>
<td></td>
<td>• plastic apron (over disposable gown/suit)</td>
</tr>
<tr>
<td></td>
<td>• Overshoes and theatre shoes</td>
</tr>
<tr>
<td></td>
<td>• Eye protection / visor</td>
</tr>
<tr>
<td></td>
<td>• FFP3 respirator or EN certified equivalent</td>
</tr>
</tbody>
</table>

7.8.5. If the Risk Assessment gives a HIGH risk rating good communication is essential. In addition to informing the clinical team caring for the patient, the Microbiologist and Infection control team should be informed immediately, and the laboratory teams informed. It is essential that the on call manager for the Trust be informed who should then inform the Director on call. PHE should be informed and the Trust
Communications Team. PHE staff will commence appropriate early public health action.

7.8.6. **Pathology specimens**
- Specimens from patients in this category will be handled in the Category 3 containment in Microbiology. Here malaria films can be prepared. Basic biochemical tests can be performed in standard biochemical analysers with appropriate precautions. Laboratory standard operating procedures for handling VHR risk specimens are maintained for each laboratory area.
- The number of investigations should be the minimum required as recommended in the [algorithm](#). This is initially urgent malaria investigation full blood count, U&Es, LFTs, Clotting screen, CRP, glucose, blood cultures

<table>
<thead>
<tr>
<th>Table 3 - Specimens from a patient categorised as HIGH POSSIBILITY OF VHF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory staff must be informed <strong>before</strong> specimens are sent for analysis to ensure experienced and senior members of staff are available to manage the coordination of testing, liaise with other laboratories such as the Rare and Imported Pathogens Laboratory.</td>
</tr>
<tr>
<td>Specimens from a patient categorised as HIGH POSSIBILITY OF VHF</td>
</tr>
<tr>
<td>• must be labelled as “High risk/ Danger of Infection”.</td>
</tr>
<tr>
<td>• must be double bagged and placed in containers for transport and not carried with specimens from other patients.</td>
</tr>
<tr>
<td>• <strong>the pneumatic tube system must not be used</strong></td>
</tr>
<tr>
<td>• Specimens will be transported to the Category 3 containment in Microbiology by a member of the clinical team in the containers as laid out in Appendix 5</td>
</tr>
</tbody>
</table>

The overall risk to laboratory workers from specimens from this category of patient is considered to be low for specimens processed in autoanalysers. However in view of the nature of VHF, it is considered prudent to handle all other specimens, e.g. blood cultures and preparation of malaria films in Category 3 containment.

Laboratories must have a risk assessment and suitable procedures for handling and disposing of specimens in this risk category and decontamination.

A sealed centrifuge bucket or rotor should be used for centrifugation procedures that are being undertaken manually i.e. not within an autoanalyser.

Waste from autoanalysers is not considered to pose a significant risk because of the small sample size and dilution step and will therefore require no special waste disposal precautions.

Blood film slides for malaria testing should be disposed of in a dedicated sharps bin, which should be retained and processed as category A waste in the event that VHF is subsequently confirmed in any of the samples.

Specimens categorised as ‘high possibility of VHF’ laboratory staff should be stored together separate from other patients specimens in order that they may be disposed of as category A waste in the event that VHF is subsequently confirmed.
7.9. Patients with CONFIRMED VHF

7.9.1. When a positive VHF screen result is obtained the following actions should be undertaken if not already in place

- Restrict the number of staff in contact with the patient and compile a list of all staff with exposure and liaise with occupational health.
- Inform those in contact with the patient of the positive test, and emphasise infection control procedures to minimise risk of infection.
- Infection control measures and PPE use should be supervised to ensure correct use of equipment
- All involved in contact with the patient should use full PPE as described in appendix 5

7.9.2. The Lead clinician in liaison with the Consultant Microbiologist and Infection Control Team should urgently discuss the transfer of the patient to the High Security Infectious Disease Unit at Royal Free Hampstead NHS Trust, London. Telephone 020 7794 0500 or 0844 8480700. Transfer will require a category 4 ambulance with should be arranged in liaison with HSIDU or SWAST. If the patient’s condition is judged too critical to allow transfer immediate discussion should be undertaken for management within the RD&E. This should involve:

- Lead Clinician
- Infection Control Doctor or Consultant Microbiologist
- Senior Infection Control Nurse
- Lead for Intensive Care
- Medical Director or Director of Nursing / Operations
- Advice from HSIDU
- Advice from PHE
- Advice from HSE.

7.9.3. The duty trust manager should be informed immediately and should the duty director and chief executive or deputy. The case must be notified urgently to Public Health England by informing the local Health Protection Unit via RD&E switchboard. PHE will initiate appropriate public health measures including surveillance of contacts.

7.9.4. An Incident Control Team should be formed. The ICT should:

- inform relevant parties that the VHF screen result was positive
- determine who is responsible for the assessment, categorisation and management of contacts, including those outside the UK, the actions to be taken and the advice to be given
- determine who is responsible for media handling and agree all key media messages between all parties.

The team will involve representatives from the Trust Management, Infection Control, Clinical team, Communications, PPE and others deemed appropriate, depending on circumstances of the case.

8. LABORATORY INVESTIGATIONS

8.1 Requesting Investigations

8.1.1. Having conducted a risk assessment according to the algorithm appropriate investigations should be undertaken. For patients assessed as at HIGH
POSSIBILITY OF VHF these should be limited to urgent malaria investigation full blood count, U&Es, LFTs, Clotting screen, CRP, glucose and blood cultures and blood for VHF serology and PCR. Non urgent investigations, including radiological investigations should not be requested until the results of VHF tests are known.

8.1.2. For patients assessed as at HIGH POSSIBILITY OF VHF the laboratories must be informed in advance that samples are to be taken so that staff can prepare. It is essential that there is someone in the microbiology laboratory to receive the sample before it is dispatched.

8.1.3. The correct samples for VHF investigation is:

- serum (4.5ml serum brown top tube)
- EDTA blood (4.5ml red top tube)

8.1.4. For Patients assessed as High Possibility of VHF specimens for culture and malaria film will be taken to the category 3 room in the Microbiology Laboratory. Biochemical and essential haematology tests can be undertaken on autoanalysers in biochemistry/haematology with appropriate precautions.

8.2 Transport of Specimens HIGH POSSIBILITY OF VHF

8.2.1. Specimens from patients assessed as having a HIGH POSSIBILITY OF VHF will be transported to the category 3 containment facility in the Microbiology Laboratory by a member of the clinical staff, see appendix 5.

8.2.2. The pneumatic tube system must not be used for HIGH POSSIBILITY OF VHF specimens.

9. DECONTAMINATION; LAUNDRY; WASTE

10.1 For patients categorised as VHF UNLIKELY or LOW POSSIBILITY OF VHF, standard precautions, cleaning and decontaminating procedures apply, including the treatment of laundry as described in the relevant Trust Policies.

10.2 For patients categorised with as HIGH POSSIBILITY OF VHF with no alternative diagnosis and re categorisation, or those with CONFIRMED VHF the procedures set out below apply. Staff involved in decontamination will be advised and supervised by the infection control team. However IT IS VERY LIKELY THAT EXTERNAL AGENCIES WILL BE INVOLVED IN DECONTAMINATION AND FUMIGATION should the Trust have patients in these categories.

10.3 Decontamination and cleaning must be conducted wearing appropriate PPE in areas occupied by patients with confirmed or a high possibility of VHF

- Hand hygiene
- Fluid repellent disposable gown
- Overshoes
- Double gloves
- Disposable visor
- Eye protection
- FFP3 respirator or equivalent

10.4 Standard washing and cleaning methods can adequately treat areas and equipment, which have not been contaminated with blood, body fluids or laboratory specimens. Hypochlorite 1,000ppm (Chlorclean) should be used.
10.5 When there has been contamination with blood or body fluids a kit using sodium dichloroisocyanurate (NaDCC) granules should be used to absorb fluids. Cleaning should be with hypochlorite at 10,000ppm, and appropriate PPM must be used.

10.6 **Toilets and Commodes**
Toilets or commodes may be used by patients categorised as ‘high possibility’ or ‘confirmed’ for VHF infection. Where commodes are employed, a dedicated commode should be used with a disposable bowl. After use, the contents are to be solidified with high-absorbency gel and then autoclaved or incinerated. Toilets and commodes should be disinfected with hypochlorite containing 10,000ppm available chlorine at least daily, preferably after each use, and upon patient discharge. For non-ambulant patients, disposable bedpans should be used and the contents to be solidified with high-absorbency gel and then autoclaved or incinerated.

10.7 **Crockery and Cutlery**
Disposable crockery and cutlery should be used where possible for those patients categorised as high possibility or confirmed VHF. These items should be disposed of as category A waste.

10.8 **Linen and Laundry**
The use of disposable linen should always be considered caring for a patient with a ‘high possibility of’ or ‘confirmed’ VHF infection. This linen must be treated and disposed of as category A waste.

All re-useable linen from patients with a ‘high possibility’ or ‘confirmed’ for VHF infection should not be returned to a laundry and must therefore be treated and disposed of as category A infectious waste.

8.2.7 **Terminal Disinfection**
After discharge of a VHF positive or high possibility patient the side room occupied by the patient will require fumigation. The methods used to do this will be in agreement with specialist advice from the HSIDU and may require a specialist company.

8.2.8 **Laboratory specimens and waste**
Waste from autoanalysers is highly diluted and is discharged to the sewer system.

Specimens form patients under investigation for VHF should be held separately until the results of tests for VHF are known. If positive they will be disposed of as category “A” waste. Otherwise standard disposal is used.

10. **AFTER DEATH CARE**

10.1 A post-mortem examination on a person known to have died of VHF exposes staff to unwarranted risk and should not be performed.

10.2 Where a patient suspected of having VHF dies prior to a definitive diagnosis, it may be necessary on public health grounds to undertake some diagnostic tests. Consultation with appropriate reference laboratories is necessary to determine the extent of sampling and the specimens required. Personnel undertaking diagnostic tests must wear appropriate PPE following the guidance for safe collection and transport of specimens.

10.3 If death of a confirmed or suspected VHF patient occurs in the Trust, 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 1000ppm available chlorine or other appropriate disinfectant. The bag should be labelled as
high risk of infection and placed in the coffin. An infection control notification sheet should be completed in readiness for the funeral directors.

10.4 Funeral directors will need to be consulted beforehand and provided with sufficient information of the infection risk normally provided by an infection control notification sheet.

10.5 Detailed advice on handling of bodies, viewing by relatives and other matters related to transport and disposal of bodies is in reference 1.

11. ARCHIVING ARRANGEMENTS
The original of this guideline will remain with the author Infection Control Doctor (ICD) / Director for Infection Prevention and Control (DIPC). An electronic copy will be maintained on the Trust Intranet (A-Z) P – Policies – V – Viral Haemorrhagic Fever. Archived copies will be stored on the Trust’s “archived policies” shared drive, and will be held indefinitely. A paper copy (where one exists) will be held for ten years.

12. PROCESS FOR MONITORING COMPLIANCE WITH AND EFFECTIVENESS OF THE GUIDELINE

12.1. In order to monitor compliance with this policy, the auditable standards will be monitored as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Minimum Requirements</th>
<th>Evidenced by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Patients with Possibility or High possibility of VHF will be reviewed by the IPCT</td>
<td>Case records and laboratory records</td>
</tr>
<tr>
<td>2.</td>
<td>Patients with Confirmed VHF will be reviewed following report of the Incident Control Team</td>
<td>Incident Control Team Report</td>
</tr>
</tbody>
</table>

12.2 Frequency
Any cases where possibility or high possibility of VHF resulted in a VHF screen being undertaken will be reported to the Infection Control Operational Group following the incident. Positive VHF cases would be included in the DIPC annual report.

12.3 Undertaken by
ICD / Joint DIPC

12.4 Dissemination of Results
At the Infection Control Operational Group which is held 6 weekly and at the Infection Control and Decontamination Assurance Group and the relevant Divisional Governance Groups if there is failure to comply with the policy.

12.5 Recommendations/ Action Plans
Implementation of the recommendations and action plans will be monitored by the Infection Control and Decontamination Assurance Group, which meets quarterly.

12.6 Any barriers to implementation will be risk-assessed and added to the risk register.

12.7 Any changes in practice needed will be highlighted to Trust staff via the Governance Managers’ cascade system.
13. REFERENCES & INFORMATION SOURCES


PHE Imported Fever Service (IFS). Contact details accessed on 20/05/2015 https://www.gov.uk/imported-fever-service-ifs


APPENDIX 1: MAPS OF VHF REGIONS AND LINKS TO CURRENT INFORMATION

In Africa, the high risk areas for VHF are those countries indicated on this map. CCHF virus is endemic in many countries in Africa, the Middle East, Eastern Europe and Asia. Infections seen outside of Africa are noted below the map.

Further details on specific countries, viruses or risk areas can be found clicking on the following links:

1. Lassa fever
2. Ebola and Marburg viruses
3. Crimean-Congo haemorrhagic fever

Other possible causes of viral haemorrhagic fever include:

- South American arenaviruses found in Argentina, Bolivia, Brazil and Venezuela (infection in travellers is very rare)
- Kyasanur Forest - India (Karnataka State only)
- Alkhurma HF - Saudi Arabia
- Omsk HF - Russian Federation (Siberia)
APPENDIX 2: TRANSFER OF PATIENT FROM A1 ENTRANCE TO TORRIDGE WARD

Viral Haemorrhagic Fever - Guideline for Risk Assessment & Management of Patients
Ratified by Infection Control & Decontamination Assurance Group: 24th January 2017
Review date: September 2017
APPENDIX 3: PATIENT TRANSFER FROM EMERGENCY DEPARTMENT TO TORRIDGE WARD

- The transfer route has been divided into 4 sectors illustrated on the attached site map.

- To safely manage all the elements of the transfer minimum staff requirements will consist of 7 staff in addition to staff directly involved with the patient. This will ensure that all points of entry (POE) in a sector will be effectively covered during the transfer.
  
  o Staff could be drawn from Site Management, Security, Porters, but would need to be supplemented by other staff e.g. from ED and Torridge
  o Any reduction in suggested staff numbers will need to be considered in line with a dynamic risk assessment undertaken at the time. This may require increasing the number of sectors which would make the transfer time longer.
  o Staff will not require PPE as they will not have close contact with the patient

- For transfers during out of hours periods, the requirement to cover the relevant POE are the same yet the general activity levels will be greatly reduced aiding in a less time consuming or problematic transfer.

- Ward doors on to the main street provide two POE but can be covered by one staff member. If necessary use a member of staff from the ward or department to stand the other side of the door to prevent people exiting during transit.

- An additional person will be appointed by Infection Control to deal with any spillages. They will wear appropriate PPE and have a spillage kit.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Template</th>
<th>Points of Entry</th>
<th>Staff required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector 1</td>
<td>Templates L/H M/G N/F</td>
<td>Main Street – 2 ED/Bramble XRay/Bramble Nuclear Med/WEEU Stairwell Lift</td>
<td>7</td>
</tr>
<tr>
<td>Sector 2</td>
<td>Templates E/O</td>
<td>Main Street – 2 Loading Bay Pharmacy/Main Entrance Lift</td>
<td>7</td>
</tr>
<tr>
<td>Sector 3</td>
<td>Templates P/D</td>
<td>Main Street – 2 Medical Outpatients Q corridor Stairwell</td>
<td>5</td>
</tr>
<tr>
<td>Sector 4</td>
<td>Templates Q/C R/B</td>
<td>Main Street – 2 Health Records/AMU Haematology/Yeo/Torridge Lift</td>
<td>5</td>
</tr>
</tbody>
</table>

- Conduct a recce of the route to ensure there are no obstructions, maintenance works and secure any lockable doors prior to the commencement of transfer.

- As the patient moves through each sector staff can move on ahead and secure the access points for the next sector thereby providing a rolling access control.

- Doors should be held open by the staff managing POEs as the patient is wheeled through, thereby preventing the team managing the patient from having to touch surfaces.
APPENDIX 4: PERSONAL PROTECTIVE EQUIPMENT

PPE for VHF consists of theatre overshoes, overboots, FFP3 filter mask, Hood, Gown, Apron, Visor and Double gloves. The order to put these on and remove them – donning and doffing is critical and should be done under supervision of a trained buddy with the checklists below.

There is an instructional video on IaN, training is essential as is fit testing of the filter mask (http://ian.exe.nhs.uk/welcome/directorates/diagnostics-professional-services/diagnostic-services/infection-control/). This this procedure should also be practiced on a regular basis.

### PPE Donning Checklist

The ‘buddy’ checking the practitioner who is donning PPE prior to entering the room should read out the actions, check that PPE is put on correctly and tick off each stage when completed correctly.

Name of practitioner donning PPE:…………………………………
Name of practitioner checking:…………………………………

<table>
<thead>
<tr>
<th>Action</th>
<th>Tick, when completed or N/A if not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Put on theatre overshoes</td>
<td></td>
</tr>
<tr>
<td>Put on overboots - do up both sets of ties in a bow</td>
<td></td>
</tr>
<tr>
<td>Fit the FFP3 filter mask, make sure it is:</td>
<td></td>
</tr>
<tr>
<td>Symmetrical to the face and opened out fully,</td>
<td></td>
</tr>
<tr>
<td>The nose bar must be pressed down to the bridge of the nose</td>
<td></td>
</tr>
<tr>
<td>The bottom section must be pulled down under the chin</td>
<td></td>
</tr>
<tr>
<td>One strap should be over the ears and one under the ears</td>
<td></td>
</tr>
<tr>
<td>Press the mask around the face to check it is flush to the skin</td>
<td></td>
</tr>
<tr>
<td>The wearer should exhale forcibly to check for air leakage which would feel like a draught onto the neck, towards the ears or up to the eyes.</td>
<td></td>
</tr>
<tr>
<td>Put on cape/hood - do up Velcro fasteners</td>
<td></td>
</tr>
<tr>
<td>Put on first pair of gloves</td>
<td></td>
</tr>
<tr>
<td>Put on disposable gown - ensure that it is done up in such a way as to allow it to be untied by the wearer, with the ties to the side of the body, in a bow. Ensure that cuffs of the gown are over the cuffs of the gloves.</td>
<td></td>
</tr>
<tr>
<td>Put on apron over gown, if patient bruising, bleeding or vomiting.</td>
<td></td>
</tr>
<tr>
<td>Tie at the back.</td>
<td></td>
</tr>
<tr>
<td>Put on full face visor making sure that the strap is tight enough to secure in position</td>
<td></td>
</tr>
<tr>
<td>Put on second pair of gloves – ensure that cuffs of gloves are pulled up over the cuffs of the gown sleeves.</td>
<td></td>
</tr>
</tbody>
</table>
### PPE Removal - Checklist

If the member of staff can be observed from outside the isolation room a ‘buddy’ should read out and observe the actions and tick off when completed correctly.

**Name of practitioner donning PPE:**

**Name of practitioner checking:**

<table>
<thead>
<tr>
<th>PPE Item</th>
<th>Instructions</th>
<th>Tick, when completed or N/A if not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Apron</strong></td>
<td>Remove by pulling forwards and breaking the ties</td>
<td></td>
</tr>
<tr>
<td><strong>Overboots</strong></td>
<td>undo ties and remove holding the outside of the boot. Do not touch your scrub suit trousers.</td>
<td></td>
</tr>
<tr>
<td><strong>Wash and dry gloved hands</strong></td>
<td><strong>Outer surgical gloves</strong> – peel off outer glove from one hand with other gloved hand and discard. Then repeat for other hand taking care to avoid contaminating inner glove.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wash and dry inner gloved hands but <strong>do not</strong> remove inner gloves.</td>
<td></td>
</tr>
<tr>
<td><strong>Gown</strong></td>
<td>Undo neck and tie of gown</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pull shoulders forward</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pull arms out so that sleeves end up inside out</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Turn gown inside out and fold or roll into a bundle and place in bin</td>
<td></td>
</tr>
<tr>
<td><strong>Wash and dry gloved hands</strong></td>
<td><strong>Eye protection</strong> - remove by pulling away from face, lifting strap up over head and forwards</td>
<td></td>
</tr>
<tr>
<td><strong>Cape/hood</strong></td>
<td>undo Velcro fastening and pull offs away from face</td>
<td></td>
</tr>
<tr>
<td><strong>Inner gloves</strong></td>
<td>remove, taking care to avoid contaminating skin.</td>
<td></td>
</tr>
<tr>
<td><strong>Gel hands or, if visibly soiled, wash and dry</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Filter mask</strong></td>
<td>remove by breaking straps at edge of mask and pull forward away from face</td>
<td></td>
</tr>
<tr>
<td><strong>Wash or gel hands</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lobbied room</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theatre overshoes</strong></td>
<td>Remove in lobby, place in bin. Alcohol gel hands</td>
<td></td>
</tr>
<tr>
<td><strong>No lobby</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theatre overshoes</strong></td>
<td>Remove immediately before leaving the room, place in bin within room by door. Exit room. Alcohol gel hands.</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 5: DIAGNOSTIC SAMPLING

Diagnostic samples required for Viral Haemorrhagic Fever in patients assessed as HIGH RISK or if directed by the Lead Clinician or Consultant Microbiologist

- Before samples are collected
  1) Laboratories must be contacted to ensure a named person is available to receive samples. Do not take samples unless the laboratory is ready to receive them.
     Contact numbers: Blood Sciences Working hours tel. 2934 Out of hours bleep 226
     Microbiology Working hours tel. 2962 Out of hours via switchboard
  2) Specimen containers and transport bag to carry specimens to the laboratories must be available outside the patient’s room
  3) Venepuncture equipment and sample tubes labelled with the patients identification must be assembled in the patient’s room
  4) Request forms must be completed outside the patient’s room and placed separately in transport bag outside the patients room

- Samples must only be taken by a competent person in recommended PPE including a face visor and double gloves
- Once collected each sample should be double bagged. Ensure urine sample, if available, has the lid securely fastened.
- Place samples in each group below in a separate open container (1, 2 or 3 see below) held by an assistant outside the room. The assistant will then close the screw topped container and place it in the transport bag. Request forms must be put separately in the transport bag which is taken to the laboratories by hand. The vacuum tube transport MUST NOT be used.

**Bottles to be Taken**
Place each group in a separate screw top container

1. **Container 1 - For Microbiology**
   - 1 x EDTA requesting Malaria Film
   - 1 x Blood Culture Set

2. **Container 2 - Microbiology for Reference Laboratory**
   - 1 x EDTA requesting Ebola VHF Investigations
   - 1 x Serum requesting Ebola VHF Investigations
   - 1 x Urine Sample Only take if available, do not delay

3. **Container 3 - For Haematology / Bio Chemistry**
   - 1 x EDTA
   - 1 x Lithium Heparin
   - 1 x Clotting Bottle

Requesting FBC, U & E, Clotting, LFT
Specimen Containers, Transport Bag and Destinations

Take the following specimens and place in the containers as per table below

| Container 1 | 1. Blood cultures  
1. EDTA Malaria screen | Take to Microbiology Laboratory Category 3 Containment Level 3 Old Pathology Building |
| Container 2 | 1. Red top EDTA  
2. Brown top clotted for VHF Testing  
3. Urine White top universal if available |  |
| Container 3 | 1. Brown top clotted for U&E, LFT, CRP Glucose  
2. Red top EDTA for FBC  
3. Green top citrate for Clotting |  |

1. Place the Specimen containers in the transport bag.  
2. The request forms must be put in the clear pocket on the lid of the transport bag
### APPENDIX 6: EQUALITY IMPACT ASSESSMENT TOOL

**Name of document**  
Viral Haemorrhagic Fever Risk assessment and Management Policy

**Division/Directorate and service area**  
Trustwide

**Name, job title and contact details of person completing the assessment**  
Judy Potter

**Date completed:**  
15/02/2017

**The purpose of this tool is to:**
- **identify** the equality issues related to a policy, procedure or strategy
- **summarise the work done** during the development of the document to reduce negative impacts or to maximise benefit
- **highlight unresolved issues** with the policy/procedure/strategy which cannot be removed but which will be monitored, and set out how this will be done.

1. **What is the main purpose of this document?**

The main purpose is to:
- rapidly identify patients at risk of infection with a VHF virus
- eliminate or minimise the risk of transmission to health care workers and others coming into contact with an infected patient by isolating and applying appropriate infection prevention & control measures
- ensure that appropriate investigations are undertaken on patients suspected of having a VHF infection, including those to exclude other serious treatable infections such as malaria and typhoid

2. **Who does it mainly affect? (Please insert an “x” as appropriate:)**

   - Carers ☒
   - Staff ☒
   - Patients ☒
   - Other (please specify)

3. **Who might the policy have a 'differential' effect on, considering the “protected characteristics” below? (By differential we mean, for example that a policy may have a noticeably more positive or negative impact on a particular group e.g. it may be more beneficial for women than for men)**

   Please insert an “x” in the appropriate box (x)

<table>
<thead>
<tr>
<th>Protected characteristic</th>
<th>Relevant</th>
<th>Not relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>Disability</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>Sex - including: Transgender, and Pregnancy / Maternity</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>Race</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>Religion / belief</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>Sexual orientation – including: Marriage / Civil Partnership</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>
4. Apart from those with protected characteristics, which other groups in society might this document be particularly relevant to... (e.g. those affected by homelessness, bariatric patients, end of life patients, those with carers etc.)?

N/A

5. Do you think the document meets our human rights obligations? ☒

Feel free to expand on any human rights considerations in question 6 below.

A quick guide to human rights:

- **Fairness** – how have you made sure it treat everyone justly?
- **Respect** – how have you made sure it respects everyone as a person?
- **Equality** – how does it give everyone an equal chance to get whatever it is offering?
- **Dignity** – have you made sure it treats everyone with dignity?
- **Autonomy** – Does it enable people to make decisions for themselves?

6. Looking back at questions 3, 4 and 5, can you summarise what has been done during the production of this document and your consultation process to support our equality / human rights / inclusion commitments?

Re. question 3 - It has been suggested by the Equality and Diversity Advisor that a significant proportion of those to whom the policy applies will be of African descent and therefore race was a relevant protected characteristic. However, this is not the case. People of any race or ethnicity returning from affected areas of the world having been there on holiday, for business, for humanitarian aid or military purposes are equally affected by this policy. In the recent Ebola outbreak in West Africa, it was returning British healthcare professionals who were of particular concern, in the past Royal Marines serving in Sierra Leone might have been considered high risk. Thus, race is not the issue, the critical issue is where in the world the patient has been prior to presenting with relevant symptoms.

7. If you have noted any ‘missed opportunities’, or perhaps noted that there remains some concern about a potentially negative impact please note this below and how this will be monitored/addressed.

<table>
<thead>
<tr>
<th>“Protected characteristic”:</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Issue:</strong></td>
<td></td>
</tr>
<tr>
<td>How is this going to be monitored/addressed in the future:</td>
<td></td>
</tr>
<tr>
<td>Group that will be responsible for ensuring this carried out:</td>
<td></td>
</tr>
</tbody>
</table>
Please insert a tick in the appropriate box √

In identifying the impact of your policy across these characteristics, please consider the following issues:
- **Fairness** - Does it treat everyone justly?
- **Respect** - Does it respect everyone as a person?
- **Equality** - Does it give everyone an equal chance to get whatever it is offering?
- **Dignity** - Does it treat everyone with dignity?
- **Autonomy** - Does it recognise everyone’s freedom to make decisions for themselves?

If you have any negative impacts, you will need to progress to a full impact assessment.

In sections 4 and 5, please copy and repeat the tables below, for each “protected characteristic” considered. Alternatively, you can use one table for more than one “protected characteristic”, if the outcomes are similar.

4. **If you have identified any positive impacts (see above), what will you do to make the most of them?**

<table>
<thead>
<tr>
<th>“Protected characteristic” affected:</th>
<th>Issue</th>
<th>Who did you ask to understand the issues or whose work did you look at?</th>
<th>What did you find out about?</th>
<th>What did you learn or confirm?</th>
<th>Action as a result of above</th>
<th>Action</th>
<th>By who?</th>
<th>When?</th>
</tr>
</thead>
</table>

5. **If you have identified any missed opportunities (“non-impacts”), what will you do to take up any opportunities to promote equality?**

<table>
<thead>
<tr>
<th>“Protected characteristic” affected:</th>
<th>Issue</th>
<th>Who did you ask to understand the issues or whose work did you look at?</th>
<th>What did you find out about?</th>
<th>What did you learn or confirm?</th>
<th>Action as a result of above</th>
<th>Action</th>
<th>By who?</th>
<th>When?</th>
</tr>
</thead>
</table>

6. **If you have identified a neutral impact, show who you have consulted or asked to confirm that this is the case, in the table below:**

<table>
<thead>
<tr>
<th>Who did you ask or consult to confirm your neutral impacts?</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Please list groups or individuals below. These may be internal or external and should include the groups approving the policy.)</td>
</tr>
</tbody>
</table>

**Infection Control Operational Group**