Quick Guide for the Management of Viral Haemorrhagic Fevers (VHFs)

Department / Service:	Microbiology/Infection Prevention Team
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Accountable Director:	Vicky Morris – Director of Infection Prevention and Control
Approved by:	Trust Infection Prevention and Control Committee
Date of approval:	16th December 2019
First Revision Due:	16th December 2022
Target Organisation(s)	Worcestershire Acute Hospitals NHS Trust
Target Departments	All Departments
Target staff categories	All Healthcare and Laboratory Staff

Quick Guide Overview:

This quick guide gives guidance on the risk assessment and management of patients in the United Kingdom in whom infection with a viral haemorrhagic fever (VHF) is suspected or is confirmed. It should be utilised in conjunction with published National Guidance.

Key Amendments to this document:

Date	Amendment	By:
22/10/2010	Document approved	TIPCC
August 2012	Updated and rewritten from new DH guidance	C Catchpole
March 2013	Further small amendments throughout	A Dyas, H Gentry
July 2014	Amended from new PHE guidance	A Dyas
09/12/2014	Amended VHF assessment algorithm and revised PHE guidance. Updated donning and doffing procedures.	H Gentry
Nov 2016	Documents extended for 12 months as per TMC paper approved on 22nd July 2015	TMC
November 2017	Document extended for three months whilst document under review	TLG
March 2018	Document extended for 3 months as approved by TLG	TLG
June 2018	Document extended for 3 months as approved by TLG	TLG
October 2018	Document extended until end of November	Heather Gentry
April 2019	Document extended for 6 months whilst review process takes place	TIPCC
December 2019	Full amendments and re-write to previous protocol. Document name changed to Quick Guide for the Management of Viral Haemorrhagic Fevers (VHFs)	TIPCC

Contents page:

1. Introduction

This quick guide provides summary guidance on the risk assessment and hyperlinks to the appropriate national guidance for advice on the management of patients in the United Kingdom (UK) in whom infection with a viral haemorrhagic fever (VHF) should be considered or is confirmed. This guidance aims to eliminate or minimise the risk of transmission to healthcare workers and others coming into contact with an infected patient.

2. Scope of this document

This quick guide covers the duty to report suspected or confirmed cases of VHF to Public Health England by the attending clinician or by the Microbiology Laboratory.

It also covers the responsibility of clinical staff to alert the Infection Prevention Team (IPT) to any individuals who may have suspected or confirmed VHF.

3. Definitions

The registered medical practitioner (RMP) is the attending physician of the patient, responsible for notifying the highly possible case of VHF to the “proper officer”.

The proper officer (PO) is that person of the local authority in which the patient currently resides (usually the Consultant in Communicable Disease Control) to whom infections should be notified within 24 hours.

4. Responsibility and Duties

This quick guide is to be implemented by all healthcare staff in Worcestershire Acute Hospitals Trust.

All attending medical practitioners and Microbiology Departments have the legal responsibility to follow this notification policy.

All clinical Trust staff are responsible for following the policy to alert the IPT about suspected or known infectious individuals.

5. Quick Guide Detail

5.1 Epidemiology

VHFs are dependent upon their animal hosts for survival. They are usually restricted to the geographical area inhabited by those animals, or specific arthropod vector. These viruses are endemic in areas of Africa, South America, the Middle East and Eastern Europe.

Environmental conditions within the UK do not support the natural reservoirs or vectors of any of the haemorrhagic fever viruses. **All recorded cases of VHF in the UK have been acquired abroad, with one exception of a laboratory worker who sustained a needle-stick injury.** There have been no cases of person-to-person transmission of VHF in the UK to date of publication of national guidance.

5.2 ACDP Hazard 4 VHF

ARENAVIRIDAE
Old World arenaviruses:
- Lassa
- Lujo

New World arenaviruses:
- Chapare
- Guanarito
- Junín
- Machupo
- Sabiá

FLAVIVIRIDAE
Kyasanur forest disease
Alkhurma haemorrhagic fever
Omsk haemorrhagic fever

BUNYAVIRIDAE
Nairoviruses
Crimean Congo haemorrhagic fever

FILOVIRIDAE
Ebola
Marburg

Published National Guidance can be found via each hyperlink above. It is the responsibility of all healthcare professionals to ensure that the recommendations set out within the published National Guidance are adhered to. Healthcare professionals must be prepared to justify any deviation from this guidance.

5.3 Patient Risk Assessment

Risk assessment is a legal obligation

The risk assessment should be led by a senior member of the medical team responsible for the acute care of patients. The Consultant Microbiologist/Virologist may also need to be involved.

Standard precautions should be implemented whilst the initial risk assessment is carried out.

For any patient who has had a fever (>37.5ºC) or history of fever in the preceding 24 hours and a travel history or epidemiological exposure within 21 days, follow the major steps in the pathway from identification to diagnosis (Appendix 1).

The questions in the algorithm will thoroughly assess the risk of VHF infection.

5.4 Management of suspected or confirmed cases of VHF

Management & infection control measures of the patient dependent upon the risk of VHF infection can be found at the following link.

5.5 Laboratory Specimens

Laboratory specimens for suspected cases of VHF should not be sent via the pneumatic chute system. The laboratory should be informed when samples are on their way so that laboratory staff are ready to handle specimens appropriately and in a timely fashion.

If a VHF screen is required, it is imperative that the attending clinician (RMP) contact the Duty Consultant Microbiologist 0900-1700 Monday-Friday, OR the On-Call Consultant Microbiologist (OOH). The Duty Consultant Microbiologist will then liaise with the Imported Fever Service (IFS) and arrange transport of the VHF screen to the Health Protection Agency (HPA) reference laboratories either at Porton Down, Salisbury or Colindale, London.

Further advice may be found here.

The minimum samples to take are:

- Serum (4.5mL serum separation gel tube)
- EDTA Blood (4.5mL EDTA tube)
- Urine – ideal, but testing should not be delayed in order to obtain a urine sample.

Further samples may be advised depending on the exposure and presentation of the case, either in parallel with the VHF testing or dependent on the results. This advice will be given by the Imported Fever Service through the Consultant Microbiologist.

5.6 Notification Procedure

5.6.1 Notification of Hospital Patients:

In England, VHF is a notifiable disease under Schedule 1 of the Health Protection (Notifications) Regulations 2010. Notification of VHFs is classified as urgent.

The attending clinician (RMP) should inform the PO via the local Health Protection Unit (HPU) or via Public Health England (PHE) within 24 hours of the suspected or confirmed VHF case. This oral notification should then be followed up with written notification within 3 days.

The attending clinician (RMP) should not wait for laboratory confirmation or results of other investigations in order to notify a suspected case.

Notification Certificates are available to print (Appendix 2). Completed certificates should be sent to:

West Midlands West HPT

Consultant in Communicable Disease Control
West Midlands West Health Protection Unit
Public Health England
2nd Floor, Kidderminster Library
Market Street
Kidderminster
Worcestershire
DY10 1AB

Telephone: 0344 225 3560 (option 2)

Out of hours advice: 01384 679 031

5.6.2 Notification of Infectious Diseases to the IPT – Notification by Nursing Staff

The Nurse in Charge (NIC) of the ward is responsible for informing the IPC Nurse of any suspected or confirmed infectious patient.

Worcestershire Royal Hospital:
Tel: 01905 733 092
Ext: 38752

Alexandra Hospital:
Tel: 01527 512 185
Ext: 44744

5.6.3 Notification by Medical Staff

In cases of serious infection, such as VHF, or in the event of an outbreak of infection, the RMP must notify the Duty Consultant Microbiologist.

The Duty Consultant Microbiologist is contactable between 0900-1700 via the Microbiology Laboratory OR the On-Call Consultant Microbiologist (OOH) is contactable via the hospital switchboard.

6. Training and Awareness

It is a mandatory requirement that all new Trust employees must attend a Trust corporate induction programme, which includes IPC training. It is the responsibility of the line manager to ensure that infection prevention and control issues are covered in all local inductions and that this is documented.

It is a mandatory requirement that all clinical and non-clinical staff update their infection control training annually, either by attendance at a formal session, or using and completing online or e-learning resources. It is the line manager's responsibility to ensure that this occurs.

Different modalities are available to facilitate compliance with mandatory training requirements. These include attendance at formal lectures, ad hoc teaching, and access to online training. Records of staff training are kept centrally on the ESR database, and locally by Directorates as required.

7. Monitoring and compliance

The HPU monitors notifications and will inform the Trust of compliance.

8. Policy Review

This quick guide will be reviewed every three years or earlier if national regulations and recommendations change by the named individual on the front of the policy and circulated for comment prior to approval by the Trust Infection Prevention and Control Committee (TIPCC).

9. References

- Advisory Committee on Dangerous Pathogens (ACDP) (2015) *Management of Hazard Group 4 viral haemorrhagic fevers and similar human infectious diseases of high consequence.*
- Advisory Committee on Dangerous Pathogens (ACDP) (2015) *Viral haemorrhagic fevers risk assessment algorithm (Version 6: 18.09.2015)*
- Public Health England (2014 updated 2016) *Crimean-Congo haemorrhagic fever: origins, reservoirs, transmission and guidelines*.
- Public Health England (2014 updated 2019) *Ebola: overview, history, origins and transmission.*
- Public Health England (2014 updated 2017) *Lassa fever: origins, reservoirs, transmission and guidelines*.
- Public Health England (2014 updated 2017) *Marburg virus disease: origins, reservoirs, transmission and guidelines.*
- Public Health England (2016) *PHE Microbiology Services VHF Sample Testing Advice*.

10. Background

10.1 Equality requirements

The equality risk assessment for this quick guide has been undertaken and meets all the required standards. (See Supporting Document 1)

10.2 Financial risk assessment

The financial risk assessment for this quick guide has been undertaken and does not require any additional resources. (See Supporting Document 2)

10.3 Consultation

This quick guide has been circulated to key stakeholders and representative of the target audience for comment prior to finalisation before being submitted for approval by TIPCC.

Consultation List

This key document has been circulated to the following individuals for consultation - *indicates comments received

Name	Designation
Dr E Yates*	CM and Infection Control Doctor
Dr E Yiannakis	CM and Infection Control Doctor
Ms T Cooper	Deputy Director of Infection Prevention and Control
Ms H Gentry	Lead Infection Prevention and Control Nurse
Mr I Johnston	Senior Infection Prevention and Control Nurse
Ms K Howles	Senior Infection Prevention and Control Nurse

This key document has been circulated to the following CDs/Heads of Department for comments from their Directorates/Departments - * indicates comments received

Name	Directorate / Department
Dr J Walton*	Divisional Medical Director (Urgent Care)
Dr J France*	Emergency Department (WRH)
Dr A Jalil	Emergency Department (ALX)
Dr A Maharaj	Medicine (WRH)
Dr D Brocklebank	Medicine (ALX)
	Circulated to all TIPCC Members

This key document will be circulated to the chair(s) of the following committee for comments;

Name	Committee
Ms Vicky Morris	Trust Infection Prevention and Control Committee (TIPCC)

10.4 Approval Process

The final draft will be checked to ensure it complies with the correct format and that all supporting documentation has been completed.

The quick guide will be submitted to TIPCC for approval before document code and version number are confirmed and the quick guide is released for placement on the Trust intranet.

Supporting Document 1 - Equality Impact Assessment Tool

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

		Yes/No	Comments
1.	**Does the policy / guidance affect one group less or more favourably than another on the basis of:**		
	Age	No	
	Disability	No	
	Gender reassignment	No	
	Marriage and civil partnership	No	
	Pregnancy and maternity	No	
	Race	No	
	Religion or belief	No	
	Sex	No	
	Sexual orientation	No	
2.	**Is there any evidence that some groups are affected differently?**	No	
3.	**If you have identified potential discrimination, are any exceptions valid, legal and / or justifiable?**	N/A	
4.	**Is the impact of the policy / guidance likely to be negative?**	No	
5.	**If so can the impact be avoided?**	N/A	
6.	**What alternatives are there to achieving the policy / guidance without the impact?**	N/A	
7.	**Can we reduce the impact by taking different action?**	N/A	

Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	No
2.	Does the implementation of this document require additional revenue	No
3.	Does the implementation of this document require additional manpower	No
4.	Does the implementation of this document release any manpower costs through a change in practice	No
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	No
	Other comments:	NIL