

Ebola Virus Disease (EVD)

EVD is a severe viral haemorrhagic fever (VHF) illness in humans with a case fatality rate up to 90%. The virus is transmitted to people from wild animals and can spread in the human population through contact with infected body fluids. There is no specific treatment or vaccine.

Any patient presenting with a positive travel history to the affected areas within the past 21 days **ASK Questions A and B:**

A) Does the patient have a fever [**>38°C**] or history of fever in past 24 hours **AND** has returned from (or is currently residing in) a VHF endemic country within 21 days?

<http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/ViralHaemorrhagicFever/VHFMaps/>

B) Does the patient have a fever [**>38°C**] or history of fever in past 24 hours **AND** has cared for / come into contact with body fluids of / handled clinical specimens (blood, urine, faeces, tissues, laboratory cultures) from an individual or laboratory animal known or strongly suspected to have VHF?

If the answer to **BOTH** Questions **A and B** are **negative** - there is no possibility of VHF

If the answer to **Question B** is **POSITIVE** then isolate in a room, call 999 and the ambulance service will deal with the case and transport to hospital

If the answer to **Question A** is **POSITIVE** then seek answers to **ALL** these additional questions (as per the Algorithm)

- Has the patient travelled to any area where there is current VHF outbreak? (<http://www.promedmail.org/>)
- Has the patient lived or worked in basic rural conditions in an area where Lassa Fever is endemic? (<http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1191942150101>)
- Has the patient visited caves OR mines, or had contact with primates, antelopes or bats in a Marburg / Ebola endemic area? (http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1254510365073)
- Has the patient travelled in an area where Crimean-Congo Haemorrhagic Fever is endemic (http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1195733776241) AND sustained a tick bite* or crushed a tick with their bare hands OR had close involvement with animal slaughter?

*If an obvious alternative diagnosis has been made, eg, tick typhus, then manage locally

If **ANY** of the additional question responses are affirmative then isolate in a room, call 999 and the ambulance service will deal with the case and transport to hospital

If **ALL** the additional question responses are **NEGATIVE** then the following single further discriminator question concerning bruising or bleeding should be asked:

CLINICAL QUESTION TO DETERMINE INFECTION CONTROL BEHAVIOUR AND PROTECT STAFF:
Does the patient have extensive bruising or active bleeding?

If the answer is **YES** then isolate in a room, call 999 and the ambulance service will deal with the case

If the answer is **NO** then the appropriate GP response is to refer immediately the patient to their local DGH medical assessment unit for further evaluation without need for isolation

Should you or your staff be exposed to a positive case then seek advice from the Local Health Protection Team regarding next steps – 0345 155 0069

VIRAL HAEMORRHAGIC FEVERS RISK ASSESSMENT (Version 3: 11.08.2014)

A) Does the patient have a fever [$>38^{\circ}\text{C}$] or history of fever in past 24 hours AND has returned from (or is currently residing in) a VHF endemic country (<http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/ViralHaemorrhagicFever/VHFMaps/>) within 21 days?
OR
B) Does the patient have a fever [$>38^{\circ}\text{C}$] or history of fever in past 24 hours AND has cared for / come into contact with body fluids of / handled clinical specimens (blood, urine, faeces, tissues, laboratory cultures) from an individual or laboratory animal known or strongly suspected to have VHF?

NO to A AND B

VHF Unlikely;
manage locally

YES to A only

YES to B

ADDITIONAL QUESTIONS:

- Has the patient travelled to any area where there is a current VHF outbreak? (<http://www.promedmail.org/>)
- Has the patient lived or worked in basic rural conditions in an area where Lassa Fever is endemic? (<http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1191942150101>)
- Has the patient visited caves OR mines, or had contact with primates, antelopes or bats in a Marburg / Ebola endemic area? (http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1254510365073)
- Has the patient travelled in an area where Crimean-Congo Haemorrhagic Fever is endemic (http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1195733776241) AND sustained a tick bite* or crushed a tick with their bare hands OR had close involvement with animal slaughter?

No to ALL additional questions

YES to ANY ADDITIONAL QUESTION

CLINICAL QUESTION TO DETERMINE INFECTION CONTROL BEHAVIOUR AND PROTECT STAFF: does the patient have extensive bruising or active bleeding?

NO

YES

HIGH POSSIBILITY OF VHF

- ISOLATE PATIENT IN A SIDE ROOM
- Urgent Malaria investigation
- Full blood count, U&Es, LFTs, Clotting screen, CRP, glucose, blood cultures
- Inform laboratory of possible VHF case (for specimen waste disposal purposes if confirmed)

LOW POSSIBILITY OF VHF

- Urgent Malaria investigation
- Urgent local investigations as normally appropriate, including blood cultures

Malaria Positive:
Manage as Malaria;
VHF unlikely

Malaria Negative

- Discuss with Infection Consultant (Infectious Disease/Microbiology/Virology)
- Infection Consultant to arrange VHF screen with Imported Fever Service (0844 7788990)
- Notify Local Health Protection Unit
- Consider empiric antimicrobials

Continuing fever after 72 hours?

Malaria Negative

CLINICAL QUESTION TO DETERMINE INFECTION CONTROL BEHAVIOUR AND PROTECT STAFF: does the patient have extensive bruising OR active bleeding OR uncontrolled diarrhoea OR uncontrolled vomiting?

Alternative diagnosis confirmed?

Yes

VHF Unlikely;
manage locally

No

Yes

Discuss with Infection Consultant (Infectious Disease/Microbiology/Virology)
Possibility of VHF; Infection Consultant to consider discussion of VHF screen with Imported Fever Service (0844 7788990)

Clinical concern OR continuing fever after 72 hours?

No

Yes

- Inform/update Local Health Protection Unit
- Ensure patient contact details recorded
- Patient self isolation
- Follow up VHF screen result
- Review daily

No

Is the patient fit for outpatient management?

No

Negative

Manage locally

Admit

VHF Result

Yes

Positive

CONFIRMED VHF

- Contact High Level Isolation Unit for transfer (020 7794 0500: Royal Free)
- Launch full public health actions, including categorisation and management of contacts
- Inform lab if other lab tests are needed

* If an obvious alternative diagnosis has been made e.g. tick typhus, then manage locally

INFECTON CONTROL MEASURES

MINIMAL RISK
Standard precautions apply:
Hand hygiene, gloves, plastic apron
(Eye protection and fluid repellent surgical facemask and for splash inducing procedures)

STAFF AT RISK
Hand hygiene, gloves, plastic apron, fluid repellent surgical facemask, eye protection (FFP3 respirator for aerosol generating procedures)
Patients that have extensive bruising, active bleeding, uncontrolled diarrhoea, uncontrolled vomiting:
Hand hygiene, double gloves, fluid repellent disposable gown/suit, eye protection, FFP3 respirator

STAFF AT HIGH RISK
Hand hygiene, double gloves, fluid repellent disposable gown or suit, plastic apron (over disposable gown/suit) eye protection, FFP3 respirator