

NHS England: Ebola Operational Update

To:

NHS England Area Teams Heads of EPRR
NHS England Oncall Teams
NHS England Communications teams

Date: 4th September 2014

Issue: 06

cc NHS England Regional EPRR Leads

From: NHS England national EPRR Team

Updates from the previous version are highlighted in yellow.

1. Purpose

1.1 The purpose of this paper is to provide a current situation report on the Ebola outbreak in West Africa, and the arrangements that are in place should the NHS be approached to take a patient with a confirmed or suspected case of Ebola.

2. Current Position

2.1 A Healthcare worker with confirmed Ebola Virus Disease (EVD) was repatriated from Sierra Leone (Kenema) to the Royal Free Hospital on Sunday 24th August at approximately 11pm and received care in the High Level Isolation Unit (HLIU). The patient was discharged from the Royal Free on Wednesday 3rd September 2014.

2.2 The scale of the Ebola outbreak appears to be "vastly underestimated", the UN's health agency says, as the death toll from the disease reaches 1,522 (Source: WHO, 28 August 2014). The World Health Organisation said its staff had seen evidence that the numbers of reported cases and deaths do not reflect the scale of the crisis. It said in a statement that "extraordinary measures" were needed. The WHO said the outbreak was expected to continue "for some time". "Staff at the outbreak sites see evidence that the numbers of reported cases and deaths vastly underestimate the magnitude of the outbreak," The full statement can be found at: <http://www.bbc.co.uk/news/world-africa-28798542>

2.3 There have been a small number of suspected cases that have been identified within the health care system in the UK over the last two weeks, all of which have been tested and confirmed as Ebola NEGATIVE.

2.4 The risk of a traveller contracting Ebola is very low without direct contact with the blood or body fluids of an infected person or animal. It is unlikely but not impossible that travellers infected in Guinea, Liberia, Sierra Leone or Nigeria could arrive in the UK while incubating the disease and then develop symptoms after their return; the incubation period for EVD is between two and 21 days.

2.5 EVD is classified as a category 4 viral haemorrhagic fever (Cat 4 VHF).

2.6 As of 4th September 2014, the cumulative number of cases attributed to EVD in the four countries stands at 3069, including 1522 deaths (source: WHO, published 28th August 2014, figures from 26th August 2014).

3. NHS Planning and response

- 3.1 The repatriated patient has been discharged from in the national specialist High Level Isolation Unit (HLIU) at the Royal Free Hospital, London. It should be noted that it only has two high level containment beds [TREXLER]. Appropriate and agreed PPE has been procured and will be held by the Royal Free Hospital. They will escalate this kit to the additional 3 UK based Infectious Disease Isolation Hospitals who are planning as surge units (Newcastle, Sheffield and Liverpool) that have been identified as being able to respond to EVD patients if the need arises.
- 3.2 The revised VHF guidance is now available - <https://www.gov.uk/government/publications/viral-haemorrhagic-fever-algorithm-and-guidance-on-management-of-patients>
- 3.3 There is no high level isolation unit capability within the devolved administrations.
- 3.4 The NHS has plans in place to deal with patients with infectious diseases as part of its core business, in line with well-established expert independent advice (Advisory Committee on Dangerous Pathogens) at **Appendix A**.
- 3.5 CMO issued an alert to the NHS in early July 2014 about the possibility of a patient presenting at GP Surgeries and Emergency Departments, so that they can act promptly in the event of a suspected case presenting in the UK. This was updated on 1st August 2014. **Appendix B** details PHE activity and guidance to 6th August.
- 3.6 PHE have issued advice and guidance for acute hospital trusts Identifying and managing patients who require assessment for Ebola virus disease; <https://www.gov.uk/government/publications/ebola-virus-disease-identifying-and-managing-patients-for-assessment-in-acute-trusts>. PHE have published [Frequently Asked Questions \(FAQs\) on Ebola for Infection Control and Prevention staff](#) and [FAQs on laboratory testing of samples from patients with possible Ebola virus disease](#). They have also published: Ebola: advice and risk assessment for educational, childcare and young persons' settings, Ebola: advice and risk assessment for universities and further educational establishments and [Ebola virus disease: managing patients who require assessment in primary care](#).
- 3.7 All PHE guidance on the EVD is here; <https://www.gov.uk/government/collections/ebola-virus-disease-clinical-management-and-guidance>.
- 3.8 With proper precautions, HCWs should not become infected. **Appendix C** is an extract from a briefing to CMO from Public Health England (PHE) which details infection

control guidance Cabinet Office have asked the Department of Health to confirm the arrangements in place within the NHS to treat a symptomatic returning traveller, or through a formal request to assist a UK or non UK National with a confirmed or suspected case of Ebola.

- 3.9 Revised Ambulance transport guidance has been developed by the National Ambulance Resilience Unit (NARU) which now allow any ambulance trust to undertake transfers (not just North East / London) and has been endorsed by NHS England and the Health & Safety Executive (HSE). A copy can be seen in **Appendix D**.
- 3.10 Department of Health has issued advice to GPs on the handling of Ebola patients. The attached advice (**Appendix E**) has been issued to all GPs from the General Practitioners Committee to all Local Medical Committee, who will cascade this to all GPs in England
- 3.11 In the event the number of patients requiring admission exceeds the UK (England) capacity at the HLIU, consideration will be given to using additional capacity in the unit with expertise in caring for patients with VHF, with the use of appropriate Personal Protective Equipment (PPE) in negative pressure ventilation single rooms.
- 3.12 NHS England EPRR team are working with a small number of NHS Trusts who have well established Level 3 Infectious Diseases Units to establish the potential to provide a surge capacity in support of the primary commissioned pathway of admittance to the Royal Free Highly Specialist Infectious Diseases Unit. A letter has now gone out to the Chief Executives of The Royal Liverpool and Broadgreen University Hospital NHS Foundation Trust, Newcastle upon Tyne Hospitals NHS Foundation Trust and Sheffield Teaching Hospitals NHS Foundation Trust as part of a contingency plan to support national surge.

4. **Other considerations**

- 4.1 **The UK Government has agreed that a DFID led civilian managed Ebola treatment centre should be established in Freetown.** The national EPRR team are supporting MOD with this work.

5. **Media**

- 5.1 Coverage on the BBC and many national papers is reducing at present.
- 5.2 A central page for information has been established. This can be found at <https://www.gov.uk/government/news/ebola-government-response>.

6. **Action for NHS England Nationally**

- 6.1 Continue to support the DH in the management of the outbreak and any requests from foreign nations including guidance to manage repatriation requests.
- 6.2 Continue to work with the Royal Free Hospital with regard to their surge plan.

6.3 Work with a small number of NHS Trusts who have well established Level 3 Infectious Diseases Units to establish the potential to provide surge capacity in support of the Royal Free.

6.4 Work with PHE and the NHS111/ Pathways teams to facilitate a clinical algorithm in NHS111 to manage any callers to NHS111 which could be Ebola related. Work is also underway with NHS Choices <http://www.nhs.uk/News/Pages/NewsIndex.aspx>

7. Action for NHS England Regional and Area Teams

7.1 Work with providers to ensure information from the National Team, PHE and DH is cascaded promptly.

7.2 The NHS England (National) EPRR team continue to support NHS England (London) and the Royal Free Hospital in managing the consequences of enhanced media interest in the repatriated UK National.

7.3 Continued work with those trusts with Level 3 Infectious Diseases Units to understand surge capacity and capability.

8. Action for Providers

8.1 Ensure staff who may see patients in whom a diagnosis of Ebola may be considered, are aware of the information circulated recently by CMO CAS alert and PHE. All PHE guidance on the EVD is here; <https://www.gov.uk/government/collections/ebola-virus-disease-clinical-management-and-guidance>.

8.2 Provide notification through usual routes to NHS England regarding any suspect cases or media enquiries.

8.3 Be aware of the agreed Media Handling Plan which has been put in place and attached.

8.4 Date of next operational briefing: 11th September 2014, unless there is any significant change in the current position.

From the ACDP Guidelines published August 2014

Management of Hazard Group 4 viral haemorrhagic fevers and similar human infectious diseases of high consequence

www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1194947382005

SECTION 5: MANAGEMENT OF A PATIENT WITH A POSITIVE VHF SCREEN

Patient with confirmed VHF

- A patient who has had a positive VHF screen result should be managed in an High Level Isolation Unit (HLIU), unless exceptional circumstances prevent transfer of the patient;
- Full public health actions should be launched;
- Once the patient has been transferred, testing of specimens should be carried out in the dedicated laboratory at the HLIU.

1. If a patient has a confirmed VHF, the following **urgent** actions are required:

- **Restrict** the number of staff in contact with the patient and compile a list of all staff who have been in direct contact with the patient;
- Enhance levels of personal protection for those in contact with the patient:
 - Hand hygiene;
 - Double gloves;
 - Fluid repellent disposable gown or suit;
 - Plastic apron (over the disposable gown or suit)
 - Disposable visor;
 - FFP3 respirator or EN certified equivalent.
- Lead clinician should discuss urgently with the nearest HLIU to arrange for the immediate transfer of the patient to the HSIU (see Appendix 3 [of full ACDP guidance] for contact details, Appendix 5 [of full ACDP guidance] for transfer information).
- **Notify** the infection control team of the positive VHF screen result;
- **Launch** full public health actions (see Section 6 [of full ACDP guidance]), including formation of an Incident Control Team.

2. If, after discussion with the HLIU it is judged that the condition of the patient precludes transfer to the HLIU, an immediate discussion with the Lead for Infection Control should take place regarding local risk assessment and control measures. Discussions with the Health and Safety Executive and experts at the HLIU are also necessary. Advice on managing a VHF positive patient in a non-HLIU environment is provided in Appendix 4 [of full ACDP guidance].

3. Prior to transfer or if the patient is unable to be transferred, testing of specimens should be carried out in accordance with Appendix 7 [of the full ACDP guidance].

PHE activity and Guidance [latest guidance at bottom]**Ebola outbreak in West Africa 2014: PHE guidance and reports**

If the document is on the web then is shown as a link, otherwise document is included as a pdf

24 March: [Outbreak in Guinea announced by WHO](#)

24 March to date: PHE website updated regularly with figures and maps

<http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1216280388212>

25 March: [First PHE Briefing](#) circulated to PHE Centres and Microbiology Services, shared with relevant clinicians and departments including Emergency Department, local NHS microbiology and Infectious Disease Consultants.

31 March: [Outbreak confirmed to have spread to Liberia](#)

10 April: [Second PHE Briefing](#), circulated to PHECs and Microbiology Services, shared with relevant clinicians and departments including Emergency Department, local NHS microbiology and Infectious Disease Consultants, and Port Health.

11 April: Health Protection Report

<http://www.hpa.org.uk/hpr/archives/2014/news1414.htm#blvrs>

16 May: Health Protection Report <http://www.hpa.org.uk/hpr/archives/2014/hpr1914.pdf>

26 May: [Outbreak confirmed to have spread to Sierra Leone](#)

30 June: PHE updated its risk assessment



30 June: Third PHE Briefing, circulated to PHECs, Microbiology Services and Port Health



1 July: PHE provided information for the NHS sent out by CMO Alert system

<https://www.cas.dh.gov.uk/ViewandAcknowledgment/ViewAlert.aspx?AlertID=102188>

1 July: PHE published risk assessment

<https://www.gov.uk/government/publications/ebola-virus-disease-risk-assessment-of-outbreak-in-west-africa>

1 July: PHE published information for humanitarian aid workers

<https://www.gov.uk/government/publications/ebola-virus-disease-information-for-humanitarian-aid-workers>

4 July: PHE published a general factsheet (on NaTHNaC website)

http://nathnac.org/pro/misc/PHE_EBOLA_FACT.pdf

4 July: Health Protection Report <http://www.hpa.org.uk/hpr/infections/travel.htm#blvrswrfc>

8 July: PHE provided guidance for risk assessment in Immigration & Removal Centres



Adobe Acrobat
Document

(see enclosed)

10 July: New **Advisory Committee on Dangerous Pathogens** VHF risk assessment algorithm published

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

11 July: PHE provides factsheets for the Sierra Leone community in England.



Adobe Acrobat
Document

1 August: Updated PHE information for the NHS sent out by CMO Alert system

<https://www.cas.dh.gov.uk/ViewandAcknowledgment/ViewAlert.aspx?AlertID=102209>



Ebola advice for
Immigration Removal

6 August: Updated advice for Immigration Removal Centres

All further PHE guidance on the EVD is here;

<https://www.gov.uk/government/collections/ebola-virus-disease-clinical-management-and-guidance>

Ebola Virus Disease (EVD) – EXTRACT FROM CMO BRIEFING 28/07/2014

Zoonotic infection

Ebola is introduced into the human population through close contact with the blood, secretions, organs or other bodily fluids of infected animals. In Africa, infection has been documented through the handling of infected chimpanzees, gorillas, fruit bats, monkeys, forest antelope and porcupines found ill or dead or in the rainforest.

Human-to-human transmission

- Ebola then spreads in the community through human-to-human transmission, with infection resulting from direct contact (through broken skin or mucous membranes) with the blood, secretions, organs or other bodily fluids of infected people, and indirect contact with environments contaminated with such fluids.
- The virus can survive outside of the host in liquid (eg blood) for up to 60 days at fridge temperature and for up to 26 days at room temperature (between 20 and 25C). If dried onto plastic or glass it can survive for up to 26 days at fridge temperature but does not survive for long if dried and kept at room temperature.
- Burial ceremonies in which mourners have direct contact with the body of the deceased person can also play a role in the transmission of Ebola.
- Men who have recovered from the disease can still transmit the virus through their semen for up to 7 weeks after recovery from illness.
- Health-care workers have frequently been infected while treating patients with suspected or confirmed EVD. This has occurred through close contact with patients when infection control precautions are not strictly practiced.

Symptoms

- EVD is a severe acute viral illness often characterized by the sudden onset of fever, intense weakness, muscle pain, headache and sore throat. This is followed by vomiting, diarrhoea, rash, impaired kidney and liver function, and in some cases, both internal and external bleeding.
- Laboratory findings include low white blood cell and platelet counts and elevated liver enzymes.
- People are infectious as long as their blood and secretions contain the virus. Ebola virus was isolated from semen 61 days after onset of illness in a man who was infected in a laboratory.
- The incubation period, that is, the time interval from infection with the virus to onset of symptoms is 2 to 21 days.

Treatment

- No licensed vaccine for EVD is available. Several vaccines are being tested, but none are available for clinical use.
- Severely ill patients require intensive supportive care. Patients are frequently dehydrated and require oral rehydration with solutions containing electrolytes or intravenous fluids.
- No specific treatment is available. New drug therapies are being evaluated.

Reducing the risk of Ebola infection in people

In the absence of effective treatment and a human vaccine, raising awareness of the risk factors for Ebola infection and the protective measures individuals can take is the only way to reduce human infection and death.

In Africa, during EVD outbreaks, educational public health messages for risk reduction should focus on several factors:

- Reducing the risk of wildlife-to-human transmission from contact with infected fruit bats or monkeys/apes and the consumption of their raw meat. Animals should be handled with gloves and other appropriate protective clothing. Animal products (blood and meat) should be thoroughly cooked before consumption.
- Reducing the risk of human-to-human transmission in the community arising from direct or close contact with infected patients, particularly with their bodily fluids. Close physical contact with Ebola patients should be avoided. Gloves and appropriate personal protective equipment should be worn when taking care of ill patients at home. Regular hand washing is required after visiting patients in hospital, as well as after taking care of patients at home.
- Communities affected by Ebola should inform the population about the nature of the disease and about outbreak containment measures, including burial of the dead. People who have died from Ebola should be promptly and safely buried.

Controlling infection in health-care settings

Human-to-human transmission of the Ebola virus is primarily associated with direct or indirect contact with blood and body fluids. Transmission to health-care workers has been reported when appropriate infection control measures have not been observed.

It is not always possible to identify patients with EBV early because initial symptoms may be non-specific. For this reason, it is important that health-care workers apply standard precautions consistently with all patients – regardless of their diagnosis – in all work practices at all times.

These include-

- basic hand hygiene,
- respiratory hygiene,
- the use of personal protective equipment (according to the risk of splashes or other contact with infected materials),
- safe injection practices and
- safe burial practices.

Health-care workers caring for patients with suspected or confirmed Ebola virus should apply, in addition to standard precautions, other infection control measures to avoid any exposure to the patient's blood and body fluids and direct unprotected contact with the possibly contaminated environment.

When in close contact (within 1 metre) of patients with EBV, health-care workers should wear face protection (a face shield or a medical mask and goggles), a clean, non-sterile long-sleeved gown, and gloves (sterile gloves for some procedures).

Laboratory workers are also at risk. Samples taken from suspected human and animal Ebola cases for diagnosis should be handled by trained staff and processed in suitably equipped laboratories.

Ambulance Requirements for Confirmed VHF Patient Transfer

Introduction

The transportation of a patient with Viral Haemorrhagic Fever requires special infection control precautions commonly referred to across the UK ambulance services as category 4 precautions.

Viral Haemorrhagic Fevers (VHFs) are classed as hazard group 4 pathogens by the Advisory Committee on Dangerous Pathogens (ACDP) and defined as

‘a biological agent that causes severe human disease and is a serious hazard to employees; it is likely to spread to the community and there is usually no effective prophylaxis or treatment available’.

Viral haemorrhagic fevers are extremely rare in the UK and even when reported are more likely to be of a suspected nature as opposed to those with a confirmed diagnosis. VHFs are severe life threatening diseases caused by a range of viruses. Most are endemic in a number of parts of the world, most notably Africa, parts of South America and some rural parts of the Middle East and Eastern Europe.

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

The known main types of VHF are Lassa, Marburg, Ebola and Crimean-Congo although other viruses may occasionally cause similar syndromes. They are potentially life-threatening blood borne viruses transmitted through blood and other body fluids (excretions and secretions). The main mode of spread in a healthcare environment is through inoculation injury, through cuts or grazes to the skin, splash on mucous membranes or droplet transmission during close exposure or aerosolising procedures. The virus can also be transmitted indirectly through exposure of broken skin or mucous membranes to environments, surfaces, equipment, waste or clothing contaminated with splashes or droplets of blood or body fluids. The virus can survive for a period of approximately 2 weeks on contaminated fabrics or equipment.

The incubation period is up to 21 days. People incubating the virus are not infectious until the onset of symptoms such as bruising, bleeding or diarrhea and vomiting. People at risk of infection are close family members, sexual contacts, health care workers caring for the patient, ambulance crew and laboratory staff.

Ambulance

The ambulance needs to be crewed with 3 staff. The driver will not be involved in patient care or transfer and so is not required to wear any PPE.

Any connection between the cab and the back of the ambulance should remain closed until the vehicle has been cleaned after the transfer is completed. There is no requirement to seal the door/window with tape. Prior to collecting the patient the vehicle should be fully fuelled and checked for any defects.

The rear of the ambulance needs to be staffed with 2 clinicians, however if the patient is ambulant and self caring it may be prudent to limit this to one member of staff to minimise staff potentially being exposed and requiring decontamination. These staff may be provided by the ambulance service however if other clinical staff are accompanying the patient at least one staff member in the rear of the vehicle should be provided by the ambulance service so that they are experienced and familiar with the ambulance and its equipment.

PPE

For a confirmed patient with VHF or a suspected patient with highly suggestive features awaiting laboratory confirmation then an enhanced level of PPE is required for all staff that may come into contact with the patient during transfer.

The agreed PPE is worn over an appropriate base layer (such as the cooler layer worn under CR1) and consists of:

- Tyvek or Tychem F Suit
- A Fit tested FFP3 respirator mask
- Eye protection
- CR1 boot covers or wellington boots or equivalent washable or disposable footwear

- Double gloves

PHE recommend the use of Tyvek/FFP3, but if unavailable CR1/FM12 may be considered.

Vehicle Equipment

The rear of the vehicle should be de-kitted to the minimum required for the transfer. Based upon IHCD Ambulance Service Basic Training, (2011). Section 17.5 Category 4 Infections recommendations the minimum remaining equipment in the rear compartment will need to be either easy to clean or regarded as disposable. If monitoring equipment is required then consideration must be given to usability in PPE as well as the clinical response to change in measured parameters.

The following equipment should be retained on board for the transfer:

- one trolley bed
- one carry chair
- manual handling aids
- 3 disposable blankets
- Supply of vomit bowls / bags (disposable minimum 6)

- Supply of clinical waste bags
- Supply of disposable gloves in sizes suitable for attending staff
- Supply of face masks with a respiratory filter (FFP3)
- Supply of surgical face masks for the patient
- Supply of disposable plastic aprons
- Safety eyewear (may be incorporated into FFP3 mask)
- 2 rolls of paper tissue (“blue roll”)
- 2 boxes of tissues
- Body fluid spillage equipment
- Drinking water for the patient
- 2 disposable bed pans
- 2 disposable urine bottles with granules or bungs
- Sufficient oxygen cylinders for the journey together with flow meter and therapy masks
- Sharps box
- Impermeable layer to cover ambulance stretcher (such as CBRN bodybag which can then be used to contain any bedding contaminated with body fluids)
- Disposable ambulance bedding pack – such as Mediwrap, which has absorbency and an impermeable layer to contain any bodily fluids
- Crew instructions for category 4 transfer (To contain key points on disrobe, reiterating adherence to IPC measures hand hygiene/showers, and terminal clean of environment, ambulance and waste management)

The following additional items should be stored in the vehicle cab, exterior cupboard where available or follow in an escorting vehicle:

- Defibrillator (including pads etc.)
- Primary response bag / pack including equipment
- Disposable resuscitation bag/valve/mask
- Mechanical resuscitator
- Suction unit
- Instructions on Category 4 transfer for crew
- Torch
- Mobile telephone
- Portable airwave radio
- Map book and specific maps / instructions for the journey
- Patient report form, pens etc.

Equipment should permit the communication between driver, attendant(s), escorting officer and Ambulance Control. Spare batteries or the facility to charge must be carried for portable devices.

Additional equipment may be necessary and will be agreed with Ambulance Control and the transfer officer dependant on the anticipated need of the patient and crew and the length of journey. If a medical team is to accompany the patient they may wish to bring items of their own equipment. If any doubt exists about equipment levels, the Ambulance service will ensure that emergency resuscitation and infection control equipment is carried as a minimum.

Duty HART Manager/ Escorting Officer:

The officer allocated to escort the crew has the following duties:

- First priority is to ensure that the senior clinician receiving the patient at the designated IDU (Infectious Diseases Unit) should have positively confirmed that the patient is fit for transfer within the ACDP guidelines.
- Rendezvous with the crew at an agreed station/location prior to the patient pick-up; confirm with the crew the route to be taken, the police may provide advice on the best route. Ensure the provision of a suitably prepared ambulance, back-up ambulance if necessary and further escort vehicle.
- Collect the clothing and personal belongings of the crew, store them in suitable containers and put them in the escort vehicle.
- Collect decontamination supplies to include mop handle and disposable mop heads, bucket, locally approved and appropriate cleaning agents and disinfectant for Category 4 organisms. Hypochlorite based products such as Actichlor/Haztabs in tablet form would be easier to transport, with bottled water to facilitate correct dilution can be stored in the escort vehicle along with a mobile decontamination unit if necessary.
- Leave the station/location at the same time as the crew and proceed to the pick-up point, notifying control of the arrival time.
- Do not engage in any aspect of patient contact or care.
- Assist the ambulance driver to ensure that onlookers and bystanders are kept well away when the patient is transferred to the ambulance.
- When the patient is loaded and the doors are closed, drive the escorting vehicle into position just behind the ambulance.
- Consider informing other Ambulance trusts and Police forces on route to the final destination in case of any vehicle incidents or known traffic congestion.
- NARU on-call team may be able to help with identification of any suitable ambulance facilities for a discrete staff change with appropriate showering and changing facilities.
- Complete a communication check with the ambulance crew before moving off, confirming status with Ambulance control.

Staff Welfare

The time that staff can be expected to work in this PPE should be limited to between 2 to 3 hours. If the overall patient journey is expected to exceed that period then pre-planned staff changes should be built into the journey at appropriate discrete locations (such as round the back of an ambulance station). At this location new staff in PPE can enter the vehicle and those being relieved will need to follow the disrobe process described later at the transfer location.

Vehicle and Equipment Cleaning

Following completion of the patient transfer the crew will be directed to return to their vehicle and drive it to a decontamination area where the vehicle should be treated in the following way:

- open all doors and windows and remove all unfixed items of equipment from the saloon of the vehicle;
- all interior surfaces of the vehicles fixtures and fittings are to be cleaned initially using hot water and detergent followed by disinfection with locally approved materials. This may involve use of a hypochlorite based cleaning solution diluted to 10,000ppm follow the instructions for correct dilution, application and contact time. (It is noted that most ambulance services do not routinely use hypochlorite for vehicle cleaning. The standard cleaning advice is to work from top to bottom, clean to dirty, leave the disinfectant for designated number of minutes required as per the product guide, before rinsing off and all surfaces dried.
- all of the items removed previously should be treated in a similar way;
- any disposable equipment (either used or unused) within the patient environment is to be placed in clinical waste bags along with all tissues and items used during the cleaning and disinfection procedure. Clinical waste bags should be secured and labelled 'infectious for incineration' and the labels endorsed with the patient identifier. Disposal of all waste bags should follow local procedure for the category of infected clinical waste.
- open the vehicle doors and windows to aid drying.

Where possible the vehicle should undergo a deep clean following the transfer to eradicate all risk. The transfer officer should arrange for this through the appropriate vehicle preparation teams.

Following completion of the appropriate cleaning and decontamination procedures the vehicle may return to normal use.

Crew decontamination

Safe undressing procedures should be followed. Disrobing will occur either following staff handover during the journey or following cleaning of the vehicle.

- Undressing should occur in a designated decontamination area or on a tarpaulin or similar sheet. Tyvek suits, shoe covers, masks, goggles and gloves should be placed in the clinical waste bag.
- Staff will then be left wearing the appropriate base layer
- Staff should shower after disrobing, and must shower if there has been any significant spillage of body fluids during the transfer or if there has been any breach of good disrobing practice.
- The shower should then be cleaned after use.

Medical Surveillance

On-going medical surveillance of the crew will depend on the instructions given by the Infectious Diseases consultant in charge of the case in consultation with PHE and will depend upon risk of exposure and contamination and the condition of the patient.

Acknowledgements

This document has been produced with the assistance of:

- London Ambulance Service (Eng-Choo Hitchcock and Si Woodmore)
- North East Ambulance Service (Yannick Raimbault)
- Scottish Ambulance Service
- Public Health England (Dr Nick Gent and Dr Andy Simpson)
- Health and Safety Executive
-

John Stephenson
Medical Director

National Ambulance Resilience Unit

11th August 2014

GPC guidance to GPs regarding Ebola virus v2

As you will know there has been a Cascade alert issued on 01 August via Area Teams concerning patients presenting with a positive travel history to Ebola Virus areas within the previous 21 days. The full alert message is found at [010814Ebola CAS alert.pdf](#) Attached to the alert is a rather complex viral haemorrhagic fever risk assessment algorithm that has alarmed some GP colleagues who have read the advice that they must undertake complex investigations. **THIS IS NOT THE CASE**

The algorithm can be found at

http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317135155050

The appropriate GP response to the algorithm is very simple for any patient presenting with a positive travel history to the affected areas within the past 21 days

ASK Questions A and B at the top of the algorithm

1. If the answer to **BOTH** Questions **A and B** are **negative** there is no possibility of VHF.
2. 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
3. If the answer **Question A** is **POSITIVE** A then seek answers to **ALL the additional questions in the box.**
4. 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
5. If **ALL** the additional questions responses are negative then the single further discriminator question concerning bruising or bleeding is asked

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.**

6. Should you or your staff be exposed to a positive case then seek advice from the Local Health Protection Team regarding next steps

Peter Holden

BMA GPC representative NHS England Emergency Preparedness Resilience & Response

08 August 2014 0759 hrs.

Further PHE Guidance for Primary care is here: [Ebola virus disease: managing patients who require assessment in primary care.\[published 2nd September 2014\]](#)