University Hospital of North Staffordshire NHS
NHS Trust

Policy No. (IC20)
Specimen Collection and Transport Policy

The following personnel have direct roles and responsibilities in the implementation of this policy:

- **Executive Committee**
- **Quality and Safety Forum**
- **Infection Control Committee**
- **Infection Prevention Team**
- **Consultants and Clinical Directors**
- **Ward Sisters/Charge Nurse and Department Manager**
- **All Trust Staff**

Version:	**2**
Ratified By:	**Executive Committee**
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Specialist Forum Approved by:	**Quality and Safety Forum**
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Date of Review:	**November 2016**
Trust Contact:	**Lead Nurse Infection Control**
Executive Lead:	**Chief Nurse (Director of Infection Prevention and Control)**

Version Control Schedule

Final Version	Issue Date	Comments
1	March 1996	
2	November 2013	

University Hospital of North Staffordshire NHS
NHS Trust

Statement on Trust Policies

Staff Side and Trade Unions
The University Hospital of North Staffordshire NHS Trust is committed to ensuring that, as far as is reasonably practicable, the way in which we provide services to the public and the way in which we treat our staff reflects their individual needs and does not discriminate against individuals or groups on any grounds.

Equality and Diversity
The University Hospital of North Staffordshire aims to promote equality and diversity and value the benefits this brings. It is our aim to ensure that all staff feel valued and have a fair and equitable quality of working life.

Equality Impact Assessment
The organisation aims to design and implement services, policies and measures that meet the diverse needs of our service, population and workforce, ensuring that none are placed at a disadvantage over others. The Equality Impact Assessment tool is designed to help you consider the needs and assess the impact of your policy.'

Information Governance
Any Trust policy which impacts on or involves the use and disclosure of personal information (patient or employee) must make reference to and ensure that the content of the policy is comparable with the relevant statutory or legal requirement and ethical standards

Data Protection Act 1998 and the NHS Confidentiality Code of Practice
The Data Protection Act (DPA) provides a framework which governs the processing of information that identifies living individuals. Processing includes holding, obtaining, recording, using and disclosing of information and the Act applies to all forms of media, including paper and images. It applies to confidential patient information but is far wider in its scope, e.g. it also covers personnel records. The DPA provides a legal gateway and timetable for the disclosure of personal information to the data subject (e.g. Health Record to a patient, personal file to an employee).

Whilst the DPA applies to both patient and employee information, the Confidentiality Code of Practice (COP) applies only to patient information. The COP incorporates the requirements of the DPA and other relevant legislation together with the recommendations of the Caldicott report and medical ethical considerations, in some cases extending statutory requirements and provides detailed specific guidance.

Freedom of Information Act 2000
The Freedom of Information Act 2000 (FOIA) is an Act which makes legal provision and creates a legal gateway and timetable for the disclosure, to the public, of the **majority** of corporate information held (but not necessarily created) by this Trust. The Trust has a legal responsibility to proactively provide a large amount of information to the public and to pro-actively respond to specific requests for information. Information will not be disclosed when the Trust can claim legal exemption. Any non-disclosure must be conveyed in writing; quoting the relevant exemption together with signposting to internal and external methods of compliant. Locally, guidance on the DPA, FOIA and COP can be obtained from the Information Governance Manager or the Caldicott Guardian.

Mental Capacity Act

Any Trust policy which may affect a person who may lack capacity should comply with the requirements of the Mental Capacity Act 2005 (MCA)

The MCA and its associated Code of Practice provides the framework for making decisions on behalf of individuals who lack the mental capacity to do these acts or make these decisions for themselves. Everyone working with and/or caring for adults who lack capacity, whether they are dealing with

everyday matters or life-changing events in the lives of people who lack capacity must comply with the Act.

In a day to day context mental capacity includes making decisions or taking actions affecting daily life – when to get up, what to wear, what to eat etc. In a legal context it refers to a person's ability to do something, including making a decision, which may have legal consequences for the person lacking capacity, or for other people.

The Code provides guidance to all those working with and/or caring for adults who lack capacity, including family members, professionals and carers. It describes their responsibilities when acting or making decisions with, or on behalf of, individuals who lack the capacity to do this for themselves. In particular, it focuses on those who will have a duty of care to a person lacking capacity and explains how the legal rules set out in the Act will work in practice.

The Health Act: Code of Practice for the Prevention and Control of Health Care Associated Infections

The purpose of the Code is to help NHS bodies plan and implement how they can prevent and control HCAI. It sets out criteria by which managers of NHS organisations are to ensure that patients are cared for in a clean, safe environment, where the risk of HCAI is kept as low as possible. Failure to observe the Code may either result in an Improvement Notice being issued by the Healthcare Commission, or in the Trust being reported for significant failings and placed on 'Special Measures'.

The Code relates to healthcare provided by all NHS bodies. Each NHS body is expected to have systems in place sufficient to comply with the relevant provisions of the Code, so as to minimise the risk of HCAI to patients, staff and visitors.
The Trust Board must have an agreement outlining its collective responsibility for minimising the risks of infection and the general means by which it prevents and controls such risks.

Effective prevention and control of HCAI must be embedded into everyday practice and applied consistently by all staff.

Human Rights

The Trust is committed to the principles contained in the Human Rights Act. We aim to ensure that our employment policies protect the rights and interests of our staff and ensure that they are treated in a fair, dignified and equitable way when employed at the Trust.

Sustainable Development

University Hospital North Staffordshire NHS Trust recognises the impact that its operations have on the environment as well as the strong link between sustainability, climate change and health. The trust is committed to continual improvement in minimising the impact of activities on the environment and expects all members of staff to play their part in achieving this goal and in particular to work towards a 10% carbon reduction by 2015. The Green Aware Campaign is designed to support you to do this. All trust policy should embed sustainability and refer to our Sustainable Development Management Plan where relevant. Further information and guidance can be obtained from the Trust Sustainability Manager.

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1. INTRODUCTION

The purpose of this policy is to ensure that the University Hospital of North Staffordshire has procedures in place so that:

- Good quality specimens are transported and received safely in the laboratory. They are clearly labelled and accompanied by a correctly completed request form. This will help the laboratory to assign the correct results to the right patient.
- Accurate and timely results are received by the sender
- Specimens are transported to the laboratory safely contained
- To minimise the risk of infection to others
- There is a pneumatic tube transfer system for the transfer of appropriate specimens. There is a separate policy EF16 “Operational Policy for the Pneumatic Tube Transfer System”, which outlines general/operational guidelines and list of specimens to be excluded.

Prior discussion with laboratory staff can sometimes ensure that the best use of the laboratory is achieved.
This policy should be read in conjunction with the Courier Driver Standard Operating Procedure (SOP), SOP for the Transport of Cells and Policy EF16, Operational Policy for the Pneumatic Tube Transfer System

2. POLICY STATEMENT

The University Hospital of North Staffordshire is committed to having policies and processes in place to ensure that all members of staff are aware of the correct procedure for collecting, handling and transporting of specimens.

3. SCOPE

The policy applies to all staff employed by the UHNS who are involved in the sending, handling, and transport of specimens.

This includes Sodexo staff, bank, agency staff, locums, trainees and students. These staff groups will be educated in a manner suitable to their needs to understand the principles of the policy. Each member of staff has a responsibility to ensure they comply with this policy and keep up to date with any personal educational needs.

4. DEFINITIONS

CCDC Consultant in Communicable Disease Control
ADR European agreement concerning the international carriage of dangerous goods by road

5 ROLES AND RESPONSIBILITIES

Chief Executive
The Chief Executive has overall responsibility for the prevention and control of infection within the Trust.

Director of Infection Prevention and Control
The Director of Infection Prevention and Control will oversee local control of infection policies and their implementation

Infection Prevention & Control Committee
The Infection Control Committee is responsible for:

- Providing input into this policy through the consultation process and to approve this policy prior to the ratification process
- Providing assurance through approval of relevant policies to the Executive Committee to support and inform their decision in ratifying this policy.

Infection Prevention Team
The Infection Prevention Team (IP Team) is responsible for:

- Providing support and advice on the implementation of this policy
- Reviewing and updating the policy every two years in line with the national guidance

Divisional Management Teams
The Divisional Management Teams are responsible for the implementation and dissemination of this policy within their division and for ensuring that there are local systems and processes in place to comply with this policy.

Matrons
Matrons will work with the IP Team to implement this policy in their clinical areas.

Ward and Department Managers
Ward and Department Managers are responsible for the implementation and dissemination of this policy within their clinical area and for ensuring that their staff are aware of and follow the guidance contained in this policy.

Trust Employees
All Trust employees are responsible for following the guidance outlined in this policy.

6 EDUCATION/TRAINING AND PLAN OF IMPLEMENTATION

It is the responsibility of Divisions to ensure that all staff receive appropriate training to comply with this policy. All members of staff with responsibility for -

1) specimen collection, handling specimens and transportation of specimens must be adequately trained and adhere to policy.
2) Infection Prevention and Control training is mandatory and must be undertaken annually (See Policy HR53 Statutory and Mandatory Training Policy).

The IP Team review the content of mandatory and induction training programs at least annually.
The IP Team will provide extra education where a need is identified or requested.

Ward managers and Matrons will recognise any problems within the clinical area and liaise with the IP Team accordingly.

Any training undertaken should be recorded in the personal staff record, ideally ESR.

7 MONITORING AND REVIEW ARRANGEMENTS

Monitoring Arrangements

Managers with staff responsibility are to ensure that this policy is disseminated to their staff. They are also responsible for initiating an on-going monitoring process within their areas of responsibility to ensure that staff have read and understood its content. This can include reviewing knowledge of the policy during yearly KSF review.

Day to day monitoring is achieved through the Infection Prevention Link Practitioners (ICLP) working with their colleagues to ensure that the processes are adhered to.

All members of staff have an individual responsibility to know the contents of this policy so that it influences their practice.

Review

This policy will be reviewed by the IP Team every three years or sooner if there is new DH guidance.

8 REFERENCES

Advisory Committee on Dangerous Pathogens (2004) The Approved List of Biological Agent London, HSE

Advisory Committee on Dangerous Pathogens. Management and Control of Viral Haemorrhagic Fevers. London: The Stationery Office 1996: 1-65

Advisory Committee on Dangerous Pathogens (2005) Biological Agents: Managing the risks in laboratories and healthcare premises London, HSE

Centre for Disease Control and Prevention: www.cdc.gov

Colebunders R, Borchet M. Ebola haemorrhagic fever – a review. J Infect 2000; 40: 16-20

Crowcroft NS, Meltzer M, Evans M, et al. The public health response to a case of Lassa fever in London in 2000. J Infect 2004; 48; 221-8

Department of Health (2007) Transport of Infectious Substances (Best practice Guidance for Microbiology Laboratories) London, Department of Health

Ergonul O. Crimean-Congo haemorrhagic fever. Lancet Infect Dis 2006; 6: 203-14

Health Services Advisory Committee (2003) Safe Working and the Prevention of Infection in Clinical Laboratories and Similar Facilities London, HSE

HMSO (2009) Carriage of Dangerous Goods & Use of Transportable Pressure Equipment Regs 2009 London, Crown Copyright

United Nations (2008) ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road Geneva/New York, United Nations

World Health Organisation: www.who.org

9 APPENDICES

9.1 Principles for the Collection of Specimens

9.1.1 All blood and body fluid is potentially contaminated and therefore all specimens pose an infection risk and are categorised as a minimum, Category B infectious substance. Standard precautions therefore apply to every type of specimen.

9.1.2 The correct specimen must be taken at the correct time.

9.1.3 The specimen should be uncontaminated by the normal flora of the patient or the person collecting the specimen.

9.1.4 An adequate quantity and appropriate number of specimens need to be sent.

9.1.5 The specimen must be safely contained and clearly labelled.

9.1.6 Specimens from any patient with a known or suspected infection caused by a Hazard Group (HG) 4 pathogen (see Appendix 3), are considered as Category A infectious. Substances must **not** be sent directly to the laboratory. In such cases, clinicians must speak to the on-call consultant microbiologist immediately.

See Appendix 1 for specific details regarding the collection and handling of specimens.

Further information around the HG4 pathogens can be obtained under the Viral Haemorrhagic Fever Guidelines (see Appendix 4). These guidelines are also located on the Intranet under “Infection Control” and “Important organisms in hospital infection control”.

9.2 Request Forms

9.2.1 Patient details must be accurate if the results of the tests are to be sent to the correct place in reasonable time. Specimens may be rejected if the request does not include at least the patient name, a date of birth and either a hospital or NHS number.

9.2.2 Clear and relevant clinical details are necessary to inform the laboratory staff upon the safety precautions that are required against the risk of infection and to enable them to select the most appropriate tests and interpret the results.

9.2.3 As previously stated **all** specimens can pose an infection risk. However, compliance with the Advisory Committee for Dangerous Pathogens (ACDP) guidelines necessitates additional labelling to denote a high risk of infection. ‘Danger of Infection’ labels must therefore be used on cards from any patient with a known or suspected infection caused by HG 3 or 4 pathogen. (See Appendices 2 and 3 for a comprehensive list of organisms).

9.3 Specimen Container

9.3.1 Specimen containers must be robust and not leak in normal use. Specimen containers should be obtained from hospital supplies to ensure that they are as prescribed by the laboratory.

9.3.2 The person who sends the specimen must ensure that the container is the appropriate one for the purpose.

9.3.3 The container must be securely closed and not externally contaminated.

9.3.4 The specimen containers from all patients must be put into an individual self-seal plastic bag with request card in the separate pocket.

For large specimens a plastic bag tied at the neck may be used. The card must be put into a separate plastic envelope and attached to the bag.

Specimens transported via road/rail or sea must comply to the relevant UN packing instructions (see 4.6B)

9.4 Labels

9.4.1 All labels must be self-adhesive. Labelling of specimens should be by hand for most specimens, as the laboratory cannot accept labels on certain samples e.g. blood transfusion requests.

9.4.2 The label on every container must describe the nature of the specimen, and, if the specimen is from a person, the identity and location of that person or details which would allow laboratory staff to identify the source quickly should the need arise e.g. In the event of a laboratory accident.

9.4.3 'Danger of Infection' labels **must** be put on all containers and laboratory request cards used for patients with a known or suspected Hazard Group 3 pathogen (See Appendix 3). This includes any transmissible spongiform encephalopathies (TSE) e.g. CJD or vCJD.

9.5 Storage of Specimens Prior to Collection

All specimens must be left in a designated area for collection, clearly marked 'specimens for collection'. The area should be situated so that unauthorised persons (patients or visitors) cannot see, or gain access to them.

9.6 Transport

All specimens which fall into Category A must be consigned as UN2814. (see Appendices 3 & 4). Permission should be sought from the on-call consultant microbiologist to consign such a specimen.

9.6.1 Specimens should be transported and packaged, and in such a way that:

- Hand contact with the container is limited;
- It is easy to identify a leaking container;
- A leaking container can be prevented from contaminating other containers and the environment.

9.6.2 Anyone handling specimens must know the procedure for dealing with leaking or broken containers.

9.6.3 Instructions for postal transportation can be obtained from the Post Office or from the laboratory. Briefly the container must be robust, securely closed and wrapped in sufficient packing material to absorb the contents in the event of leakage. (Refer to the Carriage of Dangerous Goods & Use of Transportable Pressure Equipment Regs 2009 (as amended)).

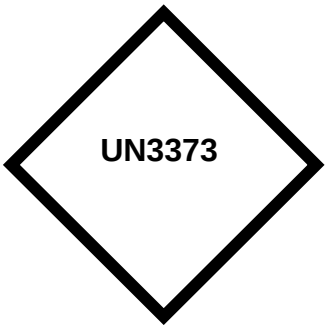
9.6.4 Specimens from patients receiving cytotoxic drugs should be put into individual self-seal plastic bags.

9.6B Transportation of Specimens by Road

The Carriage of Dangerous Goods Regulations 2009 place legal duties on the Trust as a 'consignor' and 'carrier' of substances/articles classed as dangerous goods for the purposes of carriage on public roads and highways.

Category B This will include all patient specimens, including excreta, secreta, blood and its components, tissue and tissue fluid swabs that do not fall under Category A. The following packing instructions should be followed for Cat B substances;

- Specimen transport trays or boxes should be washable and autoclavable and should not be used for any other purpose. The packaging must be of good quality, strong enough to withstand the shocks and loadings normally encountered during carriage, including transhipment between vehicles or containers and between vehicles or containers and warehouses as well as any removal from a pallet or over-pack for subsequent manual or mechanical handling. Packaging must be constructed and closed to prevent any loss of contents that might be caused under normal conditions of carriage by vibration or by changes in temperature, humidity or pressure.
- The packaging must consist of at least 3 components, a primary receptacle, a secondary packaging and an outer packaging; the outer packaging should be rigid.
- Primary receptacles must be packed in secondary packaging in such a way that, under normal conditions of carriage, they cannot break, be punctured or leak their contents into the secondary packaging. Secondary packaging shall be secured in outer packaging with suitable cushioning material. Any leakage of the contents must not compromise the integrity of the cushioning material or of the outer packaging.
- For carriage, the mark illustrated below must be displayed on the external surface of the outer packaging on a background of a contrasting colour and shall be clearly visible and legible. The mark must be in the diamond shaped with minimum dimensions of 50 mm by 50 mm; the width of the line shall be at least 2mm and the letters and numbers shall be at least 6 mm high. The proper shipping name 'BIOLOGICAL SUBSTANCE CATEGORY B' in letters at least 6 mm high must be marked on the outer packaging adjacent to the diamond-shaped mark.



- At least one surface of the outer packaging must have a minimum dimension of 100mm x 100 mm.
- The completed package must be capable of successfully passing the drop test as specified in the ADR regulations at a height of 1.2m. Following the appropriate drop sequence, there must be no leakage from the primary receptacle(s) which must remain protected by absorbent material, when required, in the secondary packaging.
- <u>For Liquid Substances:</u>
  - The primary receptacle(s) must be leak-proof
  - The secondary packaging must be leak-proof
  - If multiple fragile primary receptacles are placed in a single secondary packaging, they must be either individually wrapped or separated to prevent contact between them.
  - Absorbent material must be placed between the primary receptacle(s) and the secondary packaging. The absorbent material must be in quantity sufficient to absorb the entire contents of the primary receptacle(s) so that any release of the liquid substance will not compromise the integrity of the cushioning material or of the outer packaging.
  - The primary receptacle or the secondary packaging must be capable of withstanding, without leakage, an internal pressure of 0.95 bar.
- <u>For Solid Substances:</u>
  - The primary receptacle(s) must be sift-proof
  - The secondary packaging shall be sift-proof
  - If multiple fragile primary receptacles are placed in a single secondary packaging, they must be either individually wrapped or separated to prevent contact between them
  - If there is any doubt as to whether or not residual liquid may be present in the primary receptacle during carriage then a packaging suitable for liquids, including absorbent materials, must be used.

- <u>Refrigerated or Frozen Specimens (dry ice and liquid nitrogen)</u>
  - When dry ice or liquid nitrogen is used to keep specimens cold, all applicable requirement of ADR must be met. When used, ice or dry ice must be placed outside the secondary packaging or in the outer packaging or an over-pack. Interior supports must be provided to secure the secondary packaging in the original position after the ice or dry ice has dissipated. If ice is used, the packaging must be designed and constructed to permit the release of carbon dioxide gas to prevent a build-up of pressure that could rupture the packaging, and the package (the outer packaging or the over-pack) must be marked with 'Carbon Dioxide Solid' or 'Dry Ice'
  - The primary receptacle and the secondary packaging must maintain their integrity at the temperature of the refrigerant used as well as the temperatures and the pressures which could result if refrigeration were lost.
- When packages are placed in an over-pack, the packing markings required by this packing instruction must either be clearly visible or be reproduced on the outside of the over-pack.
- Infectious substances assigned to UN No 3373 which are packed and packages which are marked in accordance with this packing instruction are not subject to any other requirement in ADR.
- Clear instructions on filling and closing such packages must be provide by packaging manufacturers and subsequent distributors to the consignor or to the person who prepares the package (e.g. patients) to enable the packaging to be correctly prepared for carriage.

- Other dangerous goods shall not be packed in the same packaging as Class 6.2 infectious substances unless they are necessary for maintaining the viability, stabilizing or preventing degradation or neutralizing the hazards of the infectious substances. A quantity of 30ml or less of dangerous goods included in Classes 3, 8 or 9 may be packed in each primary receptacle containing infectious substances. When these small quantities of dangerous goods are packed with infectious substances in accordance with this packing instruction no other requirements of ADR need be met.

  Exemptions from ADR regulations
  - Substances which do not contain infectious substances or are unlikely to cause disease in humans
  - Substances containing microorganisms which are non-pathogenic to humans
  - Substances in a form that any present pathogens have been neutralized or inactivated.
  - Dried blood spots, or faecal occult blood screening tests
  - Blood or blood components for the purposes of transfusion
  - Tissue for transplantation
  - Specimens where there is minimal likelihood that pathogens are present

9.7 Damaged or Leaking Specimens

9.7.1 If a container is found to be leaking or broken, transport staff should ask ward staff or laboratory staff to deal with it if possible.

9.7.2 If there is leakage in transit this may need to be dealt with immediately. Spillage kits must be available in vans used for transporting specimens and the drivers must be trained to deal with spillages (refer to Policy for Safe Working Practice (IC02) – Section 4.6).

9.7.3 If any substance has leaked and has been spilled in a vehicle or container, it may not be reused until after it has been thoroughly cleaned and, if necessary, disinfected or decontaminated. Any other goods and articles carried in the same vehicle or container must be examined for possible contamination (please refer to the COSHH risk assessment which must be made available by the originating ward/Dept). The Trust Response Team may be contacted via Switchboard if further assistance is required following a spillage

9.8 Collection of Specimens

	ACTION	**RATIONALE**
1	**Urine**	
	Collect the mid stream sample	To reduce risk of contamination from the perineum/skin
	If specimen is to be taken from a urinary catheter withdraw urine from designated sampling sleeve. Clean the sleeve prior to aspiration with 70% alcohol and 2% chlorhexidine and wait to dry. Use	Urine obtained from the bag may provide misleading results as bacteria can multiply in stagnant urine.

	a sterile needle (when required) and syringe.	
	Do not disconnect the bag from the catheter to obtain a specimen.	Breaking the circuit will increase the risk of infection.
	Transfer to laboratory within 2 hours or the specimen can be refrigerated for up to 24 hours if collected out of normal laboratory working hours.	Specimens stored at room temperature may provide misleading results as urine specimens easily support the growth of bacteria.
	Catheter urines are not normally processed unless there is appropriate supporting information.	Catheter urines should only be sent when there is other evidence of infection, such as raised temperature, supra-pubic pain etc., as bacteria quickly colonises when a catheter is in-situ.
2	**Sputum**	
	Ensure the specimen is mucoid or mucopurulent.	Specimens of salvia are of no value.
	Transfer to laboratory immediately. Do not send respiratory sample by pneumatic tube system because of risk of airborne pathogens.	Respiratory pathogens will not survive for prolonged periods.
	If testing for tuberculosis 3 separate specimens should be sent (where possible, they should be early morning specimens).	To increase the chance of detection as the number of bacteria in the sputum may be quite low.
3	**Faeces**	
	Faecal specimens should be transferred to the laboratory within 12 hours. Specimen of diarrhoea should be sent to microbiology immediately. Do not refrigerate. If parasites are suspected, a fresh, warm stool is required.	For accurate diagnosis.
	A walnut sized piece of stool is required, or in the case of diarrhoea 10–15 mls.	
	Rectal swabs can be obtained if faeces cannot be passed but the swabs must be well stained with faeces.	
	Wounds	
	A sample is preferable to a swab when possible. If pus is present it can be drawn up in a sterile syringe and transferred to a sterile container. Send as large a quantity as is available. Take any wound swabs prior to cleaning procedure.	It is preferable to send pus, if it is present, rather than a swab to aid identification of the micro-organism. For accurate diagnosis.

	It is extremely important to label the wound swab accurately and fill in as much information as possible in the microbiology request form.	To help the laboratory predict the type of micro-organisms.
4	**Other Swabs**	
	Nose	
	Moisten a swab in transport medium or some sterile saline/sterile water and then rub inside the anterior nares of both nostrils.	To improve the efficiency of sampling and to detect carriage of potential pathogenic bacteria, e.g. methicillin resistant *staphylococcus aureus (M*RSA).
	Throat	
	Depress the tongue and gently rub a swab over the pillars of the follicles. Avoid touching other parts of the mouth.	To ensure maximum visibility. To prevent contamination with other bacteria.
5	**Virus**	
	Swabs for the detection of virus in skin lesions should be broken off into a phial of special transport medium.	To enable accurate detection.
6	**Blood Culture Specimens**	
	See guidelines for taking blood culture specimens.	
	Label with 'INFECTION RISK' if relevant foreign travel or increased risk of Brucellosis, HIV, HAV, HBC or HCV	To enable laboratory staff to take extra precautions and enable staff to respond appropriately and timely to any exposure incident.
7	**IV Cannulae / IV Catheter Tips**	
	Use aseptic technique, clean site before removal, cut last 2.5 cm of cannula off with sterile scissors and place in appropriate sterile container.	To avoid contamination of sample by skin flora.

NB

For microbiological samples please indicate on the form whether the patient has recently (within last 6 weeks) returned from foreign travel and/or has a pyrexia of unknown origin.

9.9 Diseases caused by Hazard Group 4 (HG4) agents.

Specimens from patients suspected/ proven to be infected with these agents belong to Category A and hence should not be collected unless discussed with the consultant microbiologist. These specimens should be hand delivered to the laboratory and the tube system should not be used.*

- Lassa fever
- Kyasanur forest disease
- Guanarito haemorrhagic fever
- Omsk haemorrhagic fever
- Argentinean haemorrhagic fever (Junin)
- Russian spring summer encephalitis
- Bolivian haemorrhagic fever (Machupo)
- Nipah
- Brazilian haemorrhagic fever (Sabia)
- Hendra
- Crimean/Congo haemorrhagic fever
- Smallpox
- Ebola
- Herpes virus simiae infection (B virus)
- Marburg

* Please refer to HSE document 'Biological agents: Managing the risks in laboratories and healthcare premises' on HSE website for up-to-date information.

9.10 Biological agents belonging to Hazard Group 3

Specimens from patients with suspected or proven infections with these agents are high risk specimens and should be clearly labelled as 'Danger of infection'.* These specimens belong to Category B infectious substances.

BACTERIA
Bacillus anthracis
Brucella abortus
Brucella canis
Brucella melitensis
Brucella suis
Burkholderia mallei (Pseudomonas mallei)
Burkholderia pseudomallei(Pseudomonas pseudomallei)
Chlamydia psittaci (avian strains)
Coxiella burnetii
Ehrlichia sennetsu (Rickettsia sennetsu)
Escherichia coli, verocytotoxigenic strains (eg O157:H7/ O103/ O104)
Francisella tularensis (Type A)
Mycobacterium africanum
Mycobacterium bovis
Mycobacterium leprae
Mycobacterium malmoense
Mycobacterium microti
Mycobacterium szulgai
Mycobacterium tuberculosis
Rickettsia akari
Rickettsia canada
Rickettsia conorii
Rickettsia montana
Rickettsia prowazekii
Rickettsia rickettsii
Rickettsia tsutsugamushi
Rickettsia typhi (Rickettsia mooseri)
Rickettsia spp
Salmonella typhi
Salmonella paratyphi A,B,C
Shigella dysenteriae (Type 1)
Yersinia pestis

VIRUSES
Lymphocytic choriomeningitis
Mobala
Mopeia
Flexal
Borna disease virus
Akabane
Germiston
Oropouche
Belgrade (Dobrava)
Hantaan (Korean haemorrhagic fever)
Seoul
Sin Nombre (formerly Muerto Canyon)
Bhanja
Rift valley fever
Hepatitis E
SARS
Dengue viruses types 1-4

Hepatitis G
Israel turkey meningitis
Japanese B encephalitis
Murray Valley encephalitis
Rocio
Sal Vieja
San Perlita
Spondweni
St Louis encephalitis
Wesselsbron
West Nile fever
Yellow fever
Absettarov
Hypr
Louping ill
Kumlinge
Negishi
Powassan
Hepatitis C
Hepatitis B
Hepatitis D (delta)
Monkeypox
Human immunodeficiency viruses
Human T-cell lymphotropic viruses (HTLV) types 1 and 2
Simian immunodeficiency virus
Duvenhage
Piry
Rabies
Chikungunya
Eastern equine encephalomyelitis
Everglades
Getah
Mayaro
Middleburg
Mucambo
Ndumu
Sagiyama
Tonate
Venezuelan equine encephalomyelitis
Western equine encephalomyelitis
Hepatitis viruses not yet identified
Bovine spongiform encephalopathy (BSE) and other related animal Transmissible spongiform encephalopathies
Creutzfeldt-Jakob disease
Variant Creutzfeldt-Jakob disease
Fatal familial insomnia
Gerstmann-Sträussler-Scheinker syndrome
Kuru

PARASITES
Echinococcus granulosus
Echinococcus multilocularis
Echinococcus vogeli
Leishmania brasiliensis
Leishmania donovani
Naegleria fowleri
Plasmodium falciparum .
Trypanosoma brucei rhodesiense
Trypanosoma cruzi

FUNGI
Blastomyces dermatitidis
*Cladophialophora bantiana (*formerly *Xylohypha bantiana, Cladosporium bantianum)*
Coccidioides
Histoplasma capsulatum var *capsulatum (Ajellomyces capsulatus)*
Histoplasma capsulatum var *duboisii*
Histoplasma capsulatum var *farcinimosum*
Paracoccidioides brasiliensis
Penicillium marneffei

* Please refer to HSE document 'Biological agents: Managing the risks in laboratories and healthcare premises' and 'The Approved List of biological agents' on HSE website for up-to-date information.

9.11 Viral Haemorrhagic Fever

Viral Haemorrhagic Fever

1. General Information

Viral haemorrhagic fevers (VHF) are severe life-threatening diseases caused by a range of viruses theoretically capable of being transmitted from man to man and include Lassa, Marburg, Ebola and Congo-Crimean haemorrhagic fever. Most are endemic in a number of parts of the world, most notably sub-Saharan Africa (Lassa, Ebola and Marburg). Environmental conditions in the UK do not support the natural reservoirs or vectors of any of these diseases. The incubation period for VHF varies from between 3-21 days. Initial symptoms include pyrexia, malaise, headache and muscle or joint pain. Ebola and Marburg often cause a measles-like rash after 4-7 days. Obvious bleeding occurs at a later or terminal stage. Crimean-Congo has a broader geographic distribution and it is not realistic to try to apply this policy to people returning from all these countries.

2. Diagnosis

In the early stages of the illness there may be no specific clinical features and so the diagnosis must be considered in anyone who develops an **unexplained fever (>38℃) or history of fever in th e previous 24 hrs AND a travel history to VHF risk area or epidemiological exposure** within 21 days. The clinician must consult an Infectious Diseases physician or Consultant Microbiologist to discuss the patient before admission. The following information should be established from the patient:

- Countries and towns visited. (A current list of high risk countries can be obtained from the Health Protection Agency website.)
- The purpose of the visit. Did the visit involve visiting rural areas? If yes,,has the patient worked or lived in rural conditions were Lassa fever is endemic i.e West/Central Africa? Has the patient travelled to any area where there is a current VHF outbreak
- Did the patient have contact with illness consistent with VHF?
- Did the patient have contact with rats or other rodents?
- Has the patient visited caves or mines in a VHF endemic area.
- Did the patient eat bush meat or import any into the country?
- Has the patient travelled in an area endemic of Crimean-Congo Fever AND either received a tick bite or crushed tick with bare hands?
- Did the patient take anti-malarials regularly? If yes obtain details.
- Date of return to the UK.
- Date of onset and details of the illness.Does the pt have a persistent fever (>72hrs) despite appropriate antimicrobials /antimalarials?

3. Infectivity

Patients can be managed more effectively if they are categorised according to level of infectivity and risk: This also determines the level of staff protection. Risk assessment should be lead by a senior member of the medical team and in liaison with ID physician/Consultant microbiologist. Please refer to the ‘Viral Haemorrhagic Fever Risk Assessment’ Algorithm below. Patient’s VHF risk category is as follows:

3.1. Highly unlikely to have VHF:

1. Febrile patients who have a history of foreign travel but have not been to an endemic area.
2. Patients who have been in endemic areas or have been in contact with a known or suspected source of VHF, but in whom the onset of illness occurred **more than 21 days** after contact
3. If their malaria screen is negative and are subsequently afebrile > 24 hrs OR if they respond appropriately to antimalarial treatment after a positive malaria test.

3.2. Possibility of VHF:

1. Febrile patients that have been in an endemic area **during the 21 days before the onset of illness**, but have none of the additional risk factors that place them in the high possibility of VHF category
2. patients who have a clinical syndrome which could be a VHF and have been abroad in areas close to known VHF endemic areas.

3.3 High possibility of VHF:
Febrile patients who have been in an endemic area within 21 days before illness and:

1. Have household contact with people who are known or suspected of having a VHF or
2. Nursed or cared for patients known or suspected of having a VHF or
3. Are a laboratory, health or other worker who has contact with body fluids or tissues of a human or animal known or strongly suspected of having VHF or
4. Were previously categorised as 'possibility of VHF', but who have developed organ failure and/or haemorrhage.
5. Patients who have not been in an endemic area will also be considered of high risk if they cared for a patient or animal known or strongly suspected of having a VHF, or came into contact with their bodily fluids or tissue within 21 days preceding their illness.

3.4 Confirmed VHF

(Please also refer to VHF risk assessment algorithm below)

4. Infection Control Measures and collection of specimens
Patients who are categorised as 'Highly unlikely to have VHF' do not need any additional infection control measures. The risk of VHF in the patient should be reassessed if a patient with a relevant exposure history fails to improve or develops any bleeding.

The Consultant Microbiologist should be **notified as soon as possible and before the patient is admitted** to re-assess the level of risk . for 'Possibility of VHF' and 'High possibility of VHF' categories.

4.1 'Possibility of VHF category
If admission is necessary patients may be admitted to Infectious Diseases ward in discussion with the Infectious Diseases physician.

- **Isolation:** The patient must be admitted to a single side room immediately, preferably with an en-suite facility.
- **Standard Infection Control Precautions:** Standard infection control precautions must be used (Please see section 1 of the Infection Control Manual).If patient experiences bleeding or bruising then additional droplet precaution measures should be taken (See table 4.1 below)
- **Single use (disposable) equipment should be used.**
- **Pathology specimens:** All samples from patients in the 'possibility of VHF' category can be treated as standard samples. Standard procedures for the transportation of specimens can be used.
- **Instigate urgent malaria screen and continue with local diagnostic investigations as normal.** If malaria negative and patient pyrexial send urgent VHF screen on EDTA and clotted blood.
- **If the VHF screen is positive, a number of urgent actions are required** – see Section 5 for details.

4.2 'High possibility of VHF' category
If admission is necessary patients may be admitted to only to the Infectious Diseases ward in discussion with the Infectious Diseases physician.

- **Isolation:** The patient must be admitted to a single side room immediately and have a dedicated en-suite facility or at least a dedicated commode.

Infection control precautions All persons entering the room should follow standard and droplet precaution measures. If the patient experiences bleeding, bruising, uncontrolled vomiting or diarrhoea then enhanced precaution (Standard plus droplet precaution and respiratory protection) measures should be followed (See table 4.2 below)

- Single use (disposable) equipment and supplies should be used.
- All staff should be made aware of the potential risks and infection control measures.
- Public Health should be informed as soon as possible.

Specimens for Laboratory testing: An urgent VHF screen (on EDTA and clotted blood) and urgent. EDTA blood for a malaria screen should be taken after discussion with the on call Microbiologist and Haematologist. The specimens must be labelled with Risk of Infection stickers and double bagged in self-sealing plastic bags.

The following principles should be followed to ensure safe transfer of these specimens to the laboratory:

- Laboratory staff should be notified prior to receipt of all specimens from patients with a 'high possibility of VHF' or with a positive VHF screen;

- Specimens should be transported in person i.e. not be sent on automatic transport systems (e.g. pneumatic transport systems) nor in standard mail;

- Specimens should be transported to the laboratory using appropriate precautions i.e. specimens should be carried in suitably sealed containers;

Specimens taken for laboratory analysis should be kept to the minimum necessary for patient management and diagnostic evaluation. Specimens should be discussed in advance between clinicians and the appropriate specialist for each laboratory area.

During specimen collection, universal infection control principles and practices should always be adopted. In addition, staff must select PPE in accordance with the risk category of the patient – see patient risk assessment algorithm below.

- If malaria screen is negative or patient fails to improve on treatment and VHF screen negative,the possibility of patient having VHF should be maintained until an alternative diagnosis is confirmed or patient is afebrile >24 hrs. The patient should therefore remain isolated and infection control measures should be maintained.

If the VHF screen is positive, a number of urgent actions are required – see Section 5 for details.

5. Patient with a positive VHF screen

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

- Full public health actions should be launched;
- Clinical management of a patient with a positive VHF screen is conducted on a case-by-case basis by the clinicians at the HSIDU;
- Once the patient has been transferred, testing of specimens should be carried out in the dedicated laboratory at the HSIDU.

- If a patient has a positive VHF screen result, the following **urgent** actions are required:
- **Restrict** the number of staff in contact with the patient and compile a list of all staff with exposure;
- **Inform** those in contact with the patient of the positive test, and emphasise infection control procedures to minimise risk of infection;

Enhance levels of personal protection for those in contact with the patient:

- Hand hygiene;
- Double gloves;
- Fluid repellent disposable gown – an all-in-one disposable should be considered as an alternative;
- Disposable visor;
- FFP3 respirator or EN certified equivalent.

Lead clinician should urgently discuss with the nearest HSIDU to arrange for the immediate transfer of the patient to the HSIDU (see Appendix 2 for contact details, Appendix 4 for transfer information). **Notify** the infection control team of the positive VHF screen result;

6. Patient transfer:
Transfer of a patient within the UK to an HSIDU will be necessary when either:

- the patient has been categorised as 'high possibility of VHF' and has bruising or bleeding or uncontrolled diarrhoea or uncontrolled vomiting; or
- the patient has had a positive VHF screen result.

The decision to transfer a patient should be made by the senior clinician responsible for the patient's care, after consultation and agreement with clinicians at the HSIDU to which the patient is to be transferred.

7. Additional infection control advice: The IPCT will provide infection control support and advice to staff in all areas where the patient has visited.

7.1. Spillage and contamination with body fluids
Environmental surfaces or inanimate objects contaminated with blood, other body fluids, secretions or excretions should be disinfected using fresh 10,000 ppm available chlorine solution. Disposable instruments should be used wherever possible and discarded in the usual way. Re-usable instruments should be sent to the Sterilisation and Decontamination Unit as usual. Rooms vacated by patients with VHF should be terminally deep cleaned with sodium hypochlorite (1,000 ppm available chlorine).

7.2 Linen and waste

For patients categorised as possibility of VHF, standard precautions, cleaning and decontaminating procedures apply, including the treatment of laundry. All procedures should be in keeping with those used when caring for a patient with malaria

The following measures apply for patients who fall under the 'high possibility of VHF and positive for VHF' categories:
The Waste Manager should be contacted as soon as a patient is identified as 'high possibility of VHF and positive for VHF' categories**.**
All linen should be placed into a **yellow waste bag,** the mattress should be placed into a **yellow mattress bag,** and any other items such as cutlery, crockery, books, etc, which have been in the patient's room, should also be placed into **yellow bags.** ***The Waste Manager should be contacted to arrange for disposal. The Dangerous Goods Safety Advisor (DGSA) should be contacted to gain authorisation for disposal from the HSE and Department of Transport.***

Potentially infectious solid medical waste (e.g. contaminated needles, syringes, and tubing) will be placed in appropriate sealable bins for incineration.

Persons carrying out decontamination and cleaning procedures must wear appropriate PPE and use suitable disinfectant products determined by a robust risk assessment.

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.

Care should be taken to avoid splashing when disposing of these materials and full protective clothing should be worn.

7.3. Last Offices

If the patient dies, handling of the body should be minimal. Full PPE should be worn when performing last offices. The mortuary should be notified that the body is to be treated as high risk. A post-mortem examination on a person known to have died of VHF exposes staff to unwarranted risk and **should not be performed**. The corpse should be placed in a sealed body bag, not embalmed, and cremated or buried promptly in a sealed casket according to Department of Health guidelines.

7.4. Contact with bodily fluids

Persons with percutaneous or mucocutaneous exposures to blood, body fluids, secretions or excretions from a patient with suspected VHF should immediately wash the affected skin with soap and water. Encourage bleeding by squeezing if appropriate. Mucous membranes (e.g. conjunctiva) should be irrigated with copious amounts of water or eyewash solution. Exposed persons should receive medical evaluation and follow-up management via Occupational Health with advice from a Consultant Microbiologist and the IPCT. Incidents should be reported as RIDDOR to HSE.

8. Useful contact numbers

1. **High-Security Infectious Diseases Units.**
    a. Infectious Diseases Department, Royal Free Hospital, London, NW3 2QG
    020 7941 1828 (Infectious Diseases office)
    020 7794 0500 (switchboard, ask for Infectious Diseases doctor on call)
    b. Newcastle upon Tyne Hospitals NHS Trust, Freeman Hospital, Freeman Road, High Heaton, Newcastle upon Tyne, NE7 7DN.
    0191 256 2651 (Infectious Diseases department)
    0191 233 6161 (switchboard).
2. Trust Waste Manager:72684
3. Dangerous Goods Safety Advisor @ ISS Ltd: 01159 777848

9. Sources of evidence

1. Advisory Committee on Dangerous Pathogens. Management of Hazard Group 4 viral haemorrhagic fevers and similar human infectious diseases of high consequence. 2012.
2. Advisory Committee on Dangerous Pathogens. Management and Control of Viral Haemorrhagic Fevers. London: The Stationery Office 1996: 1-65.
3. Centre for Disease Control and Prevention: www.cdc.gov
4. World Health Organisation: www.who.org
5. Crowcroft NS, Meltzer M, Evans M, et al. The public health response to a case of Lassa fever in London in 2000. J Infect 2004; 48: 221-8.
6. Ergonul O. Crimean-Congo haemorrhagic fever. Lancet Infect Dis 2006; 6: 203-14.
7. Colebunders R, Borchet M. Ebola haemorrhagic fever – a review. J Infect 2000; 40: 16-20.

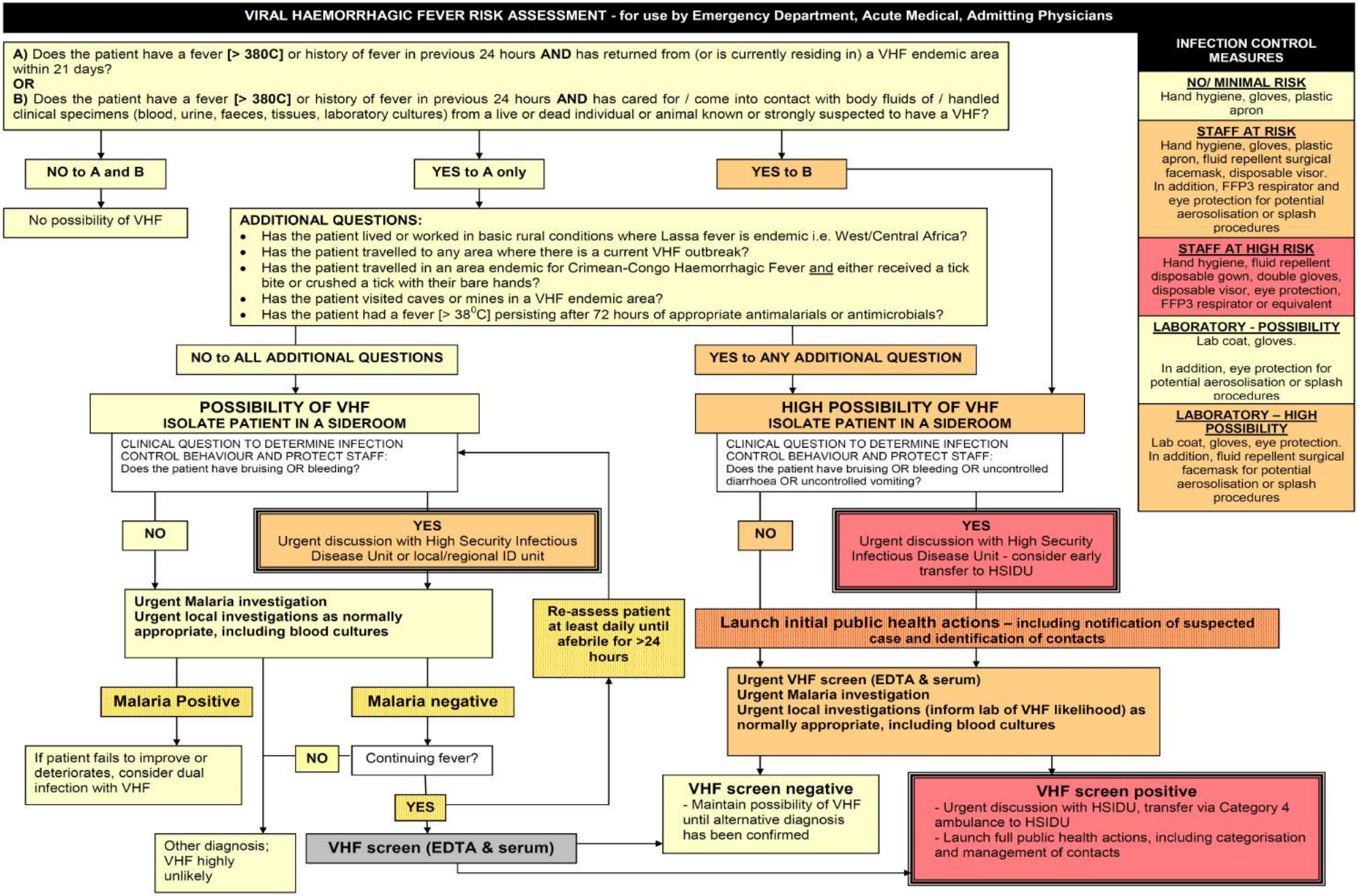

VIRAL HAEMORRHAGIC FEVER RISK ASSESSMENT - for use by Emergency Department, Acute Medical, Admitting Physicians
A) Does the patient have a fever [> 380C] or history of fever in previous 24 hours AND has returned from (or is currently residing in) a VHF endemic area within 21 days?
OR
B) Does the patient have a fever [> 380C] or history of fever in previous 24 hours AND has cared for / come into contact with body fluids of / handled clinical specimens (blood, urine, faeces, tissues, laboratory cultures) from a live or dead individual or animal known or strongly suspected to have a VHF?
NO to A and B
No possibility of VHF
YES to A only
YES to B
ADDITIONAL QUESTIONS:
Has the patient lived or worked in basic rural conditions where Lassa fever is endemic i.e. West/Central Africa?
Has the patient travelled to any area where there is a current VHF outbreak?
Has the patient travelled in an area endemic for Crimean-Congo Haemorrhagic Fever and either received a tick bite or crushed a tick with their bare hands?
Has the patient visited caves or mines in a VHF endemic area?
Has the patient had a fever [> 38°C] persisting after 72 hours of appropriate antimalarials or antimicrobials?
NO to ALL ADDITIONAL QUESTIONS
YES to ANY ADDITIONAL QUESTION
POSSIBILITY OF VHF
ISOLATE PATIENT IN A SIDEROOM
CLINICAL QUESTION TO DETERMINE INFECTION CONTROL BEHAVIOUR AND PROTECT STAFF:
Does the patient have bruising OR bleeding?
HIGH POSSIBILITY OF VHF
ISOLATE PATIENT IN A SIDEROOM
CLINICAL QUESTION TO DETERMINE INFECTION CONTROL BEHAVIOUR AND PROTECT STAFF:
Does the patient have bruising OR bleeding OR uncontrolled diarrhoea OR uncontrolled vomiting?
NO
YES
Urgent discussion with High Security Infectious Disease Unit or local/regional ID unit
NO
YES
Urgent discussion with High Security Infectious Disease Unit - consider early transfer to HSIDU
Urgent Malaria investigation
Urgent local investigations as normally appropriate, including blood cultures
Re-assess patient at least daily until afebrile for >24 hours
Launch initial public health actions – including notification of suspected case and identification of contacts
Malaria Positive
Malaria negative
Urgent VHF screen (EDTA & serum)
Urgent Malaria investigation
Urgent local investigations (inform lab of VHF likelihood) as normally appropriate, including blood cultures
If patient fails to improve or deteriorates, consider dual infection with VHF
NO
Continuing fever?
YES
VHF screen negative
- Maintain possibility of VHF until alternative diagnosis has been confirmed
VHF screen positive
- Urgent discussion with HSIDU, transfer via Category 4 ambulance to HSIDU
- Launch full public health actions, including categorisation and management of contacts
Other diagnosis; VHF highly unlikely
VHF screen (EDTA & serum)
INFECTION CONTROL MEASURES
NO/ MINIMAL RISK
Hand hygiene, gloves, plastic apron
STAFF AT RISK
Hand hygiene, gloves, plastic apron, fluid repellent surgical facemask, disposable visor.
In addition, FFP3 respirator and eye protection for potential aerosolisation or splash procedures
STAFF AT HIGH RISK
Hand hygiene, fluid repellent disposable gown, double gloves, disposable visor, eye protection, FFP3 respirator or equivalent
LABORATORY - POSSIBILITY
Lab coat, gloves.
In addition, eye protection for potential aerosolisation or splash procedures
LABORATORY – HIGH POSSIBILITY
Lab coat, gloves, eye protection.
In addition, fluid repellent surgical facemask for potential aerosolisation or splash procedures

Table 4.1: Infection Control measures for 'Possibility of VHF'

Infection control measures for 'possibility of VHF'	
Patient's symptoms	**Staff protection**
Bruising OR bleeding	Standard **plus** droplet precautions required: ○ hand hygiene ○ gloves ○ plastic apron ○ fluid repellent surgical facemask ○ disposable visor **In addition, for potential aerosol-or splash-inducing procedures:** ○ FFP3 respirator or EN certified equivalent
None of the above	Standard Precautions: ○ hand hygiene ○ gloves ○ plastic apron

Table 4.2: Infection control measures for 'High Possibility of

Infection control measures for 'high possibility of VHF'	
Patient's symptoms	**Staff protection**
Bruising OR bleeding OR uncontrolled diarrhoea OR uncontrolled vomiting	Enhanced precautions required (standard plus droplet plus respiratory protection): ○ hand hygiene ○ double gloves ○ fluid repellent disposable gown – an all-in-one disposable should be considered as an alternative; ○ disposable visor ○ FFP3 respirator or EN certified equivalent
None of the above	Droplet precautions (standard plus droplet) required: ○ hand hygiene ○ gloves ○ plastic apron ○ fluid repellent surgical facemask ○ disposable visor. **In addition, for potential aerosol-or splash-inducing procedures:** ○ FFP3 respirator or EN certified equivalent

9.12 Standard Operating Procedure

Caring With Knowledge
Value Through Quality

University Hospital of North Staffordshire NHS Trust

STANDARD OPERATING PROCEDURE	
Title	**Disposal of Waste Generated by Patients Infected with Category A Virus**
Purpose	This SOP is intended to ensure that any waste generated by a patient who is a high possibility or confirmed to be infected with a Cat A virus (list of viruses is attached to this SOP), is disposed of in a manner that reduces the risk of infection, so far as is reasonably practicable, to staff and ensures compliance with COSHH and ADR regulations.
Scope	Any staff who may potentially come into contact with the waste; this will include nursing staff on the affected ward, domestic staff, porters (Sodexo) who transport the waste to the service yard and Waste Contractors.
Other related documents	Viral Haemorrhagic Fever Protocol (appendix to Policy IC20, Specimen Transportation and Collection Policy)

Instruction	
1.	As soon as confirmation is received that a patient is of high possibility or confirmed of being infected with one of the Category A viruses on the list in Appendix 5, the patient will be transferred to one of the specialist hospitals (Newcastle or London). All personal effects will be sealed in a clear double bag, marked with the patient's name and 'CAT A Infectious'; and will be transferred with the patient, along with any re-usable instruments. In the event of the death of an infected patient at UHNS, the deceased will be transferred to one of the specialist hospitals, again with all their personal effects and any re-usable instruments. In order to ensure the safe disposal of any remaining waste items, the following actions should take place;
2.	The Ward Manager must contact Infection Prevention, who in turn will contact the Waste Manager, Site Manager, Health & Safety Department and Sodexo to inform them that Cat A waste collection will be generated, and request a 60litre bin to be located in the patient's room.
3.	**<u>No unauthorised persons should handle the contaminated waste</u>**
4.	Nursing staff who may come into contact with the contaminated waste must wear appropriate personal protective equipment, ie;

	Surgical mask Gloves Overshoes Thumb-loop gown Goggles
5.	The following Cat A disposal kit will be kept in the 2nd Clean Utility room on Ward 117; • 60 Litre sealable medi bin • 10 Litre yellow sharps bin (NB: for incineration, even if this is Sharpsmart bin) • Mattress bags (2) • Yellow waste bags • Tie label for euro cart • PPE (as above)
6.	**All waste contaminated with Category A infectious substances must be packaged in accordance with the Category A Infectious Waste Packaging Procedure in Appendix 1.**
7.	All the patient's linen should be placed in a yellow waste bag, along with any other disposable items such as plastic cups, cutlery. Other items which may have been contaminated by the patient must also disposed of into the yellow waste bag included in the Cat A disposal kit.
8.	The mattress used by the infected patient should be inspected, if it is found to be intact, it should be wiped down with a high concentration solution of Virusolve (5%) . This can then be re-used.
9.	If the mattress is damaged, or there is any sign of leakage into the interior, the mattress must be condemned. It must be placed into the yellow plastic mattress bag.
10.	Any potentially infectious sharps waste, e.g. contaminated needles, syringes, should be placed in the Daniels or Sharpsmart yellow sharps bin intended for incineration.
11.	Bodily fluid waste such as faeces and vomitus should be disposed of in the sanitary sewer within the patient's room, PPE should be worn and care taken not to splash. Empty cardboard receptacles should be placed in the yellow bag in the patient's room.
12.	The packaged waste should now be stored in the isolation waste storage point ready for authorised collection. This will be the sluice room attached to the patient's room, with a hatch for the waste. The waste will remain here until arrangements have been made for collection (as below).
13.	Nursing staff wearing appropriate PPE should put the yellow bags and sharps bin into the

	sealable bin. The outer surface of the rigid container shall be decontaminated as procedure below. If the mattress is to be incinerated it should be placed into the yellow mattress bag, which should be decontaminated as procedure below. **Decontamination procedure prior to removal from the isolation room** Wipe the surface with a cloth soaked in a high concentrate solution of Virusolve (5%) and leave to dry for 10 minutes. A decontamination label must be attached to the outer container to evidence that this has been done.
14.	Waste Manager or Health & Safety Advisor will contact DGSA to arrange for authorisation by the HSE or Dept for Transport.
15.	The Waste Manager will inform the waste contractor for the specialist collection and disposal of the Category A waste in accordance with the Trust Security Plan for Category A Waste. The labelled Category A euro-cart shall only be collected by the waste contractor when clear identification has been made of the carrier and the procedure below is followed.
16.	Sodexo should be contacted to arrange for the waste to be collected from the isolation waste storage point. Sodexo should bring a yellow euro-cart to the ward.
17.	Nursing staff should label the euro-cart with labels provided by the Waste Manager, in accordance to Appendix 2. Waste/Facilities staff will ensure the sealable bin carries the label provided by the Waste Manager (in accordance with the Waste Labelling Procedure in Appendix 2.) and place the sealable bin into the euro-cart (770ltr clinical waste carts).
18.	**Onsite movement procedure of category A waste** The movement of category A infectious waste from the pressured isolation storage point to the Waste Contractor collection point must be authorised by the Infection Prevention Lead and Waste Manager. The movement shall be authorised by the Waste Manager and witnessed by the Trust Security Manager and Waste Manager and/or Facilities Supervisor.
19.	The Waste Manager will ensure that an appropriate Transport and Waste document is completed in accordance with Appendix 3.
20.	Any spillages of Category A Waste will be dealt with in accordance with the Spillage Procedure in Appendix 4.
21.	**In the event that the waste needs to be moved out of normal hours** **The Site Manager must be contacted.**

	The Site Manager will contact the Waste Manager and both will co-ordinate the above.
22.	Any deviation from this procedure should be reported via Datix.
23.	Contacts Jeff Trevor, Waste Manager: 72684, mobile: 07810262024 Out of hours facilities supervisors(for additional boxes): Bleep 71330/71459 Sodexo helpline: 72000 Julie Knowles, Health & Safety Advisor, 76475, mobile: 07909996155 Infection Prevention: 76360 Will Jones, DGSA 07769253723 Security, 76662 Site Managers: Control Room 75557 or Bleep 479

Appendix 1. Category A Infectious Waste Packaging Procedure

Clinical waste, generated from the treatment of patients who are known or suspected to be infected with a Category A listed micro-organism, must be segregated at point of production from other clinical waste. Category A clinical waste must be packaged in accordance to the following Packaging Procedure:

Primary Packaging

- Solid or semi-solid Category A infectious waste is to be placed in **Yellow** clinical waste bags marked “for incineration only”. Bags must be swan-necked and sealed.

- Sharps must be placed in Yellow lidded sharps bin.

Secondary Packaging:

- Solid or semi-solid Category A infectious waste in Yellow clinical waste bags are placed in a rigid container and the lid sealed.

- Sharps bins are placed in a rigid container and the lid sealed.

  Do not overfill the secondary container.

Absorbent Material

- Other than for solid infectious substances, an absorbent material in sufficient quantity to absorb the entire contents of the primary receptacle(s) must be placed between the primary receptacle(s) and the secondary packaging.

  This requirement is only relevant where a liquid content is present in the primary package.

Outer Packaging

- The primary receptacle(s) and the secondary container(s) should be placed inside rigid 770ltr clinical waste carts provided by the waste contractor prior to removal from site.

- A document detailing the following should be placed between the secondary and outer packaging:

- Category A Clinical Waste Contaminated With ….. *name of confirmed or suspected micro-organism ……*
- **UN2814, WASTE INFECTIOUS SUBSTANCES, AFFECTING HUMANS**
- Where the Category A micro-organism is not confirmed the words **"Suspected Category A Infectious Substance"** must be shown in parenthesis following the proper shipping name.

Appendix 2. Waste Labelling Procedure

The secondary package when completed and sealed must be marked with the words **''READY FOR DISPOSAL''** and the date of closure.

The **secondary** and **outer packaging** must display the following transport marking and labelling:

- Marked with **UN2814**
- Labelled clearly with ADR label model No. 6.2 (minimum dimension 100mm x100mm):

No other transport related markings or labels should be visible.

The Waste Manager will provide the labels for attachment when the packages are complete.

Appendix 3. Transport Documentation

The Waste manager will ensure that the movement of category A infectious clinical waste is recorded on a hazardous waste consignment note that includes the following transport information:

For known category A infections substances:

- **UN2814, WASTE INFECTIOUS SUBSTANCES, AFFECTING HUMANS (***name of micro-organism***), 6.2, PGII, (E)**

For unknown or suspected category A infections substances:

- **UN2814, WASTE INFECTIOUS SUBSTANCES, AFFECTING HUMANS (Suspected Category A Infectious Substance), 6.2, PGII, (E)**

For all documents:

- Number & description of packages
- Name and address of consignor
- Name and address of consignee
- The name and telephone number of the Trust nominated responsible person should be indicated on the transport document.

Appendix 4. Spillage Procedure

In the event of spillage the following actions should take place;

a) Put on disposable gloves, apron and overshoes. Eye protection must be worn when cleaning up the spillage.
b) **Fresh blood** –Place paper towels on blood spillage. Mop up blood spillage with paper towels placing them in a yellow clinical waste bag. Then wipe area with a paper towel soaked in a high concentrate solution of Virusolve (5%).
c) Dispose of all paper towels/ gloves and aprons in yellow clinical waste bag
d) Wash hands.

If blood splashes on to bare skin then wash skin immediately, if blood splashes on to broken skin visit Occupational health immediately (A&E out of hours)

All yellow waste bags must be placed in a rigid a secondary container and wiped down with a high concentrate solution of Virusolve (5%) as per packaging procedure.

Mops must not be placed directly on a spillage.

Appendix 5. Indicative List of Category A Micro-organisms (ADR 2013)

Items contaminated with the specific micro-organisms identified in the list below, are to be classified as Category A infectious substances.

Micro-organisms

Bacillus anthracis (cultures only)
Brucella abortus (cultures only)
Brucella melitensis (cultures only)
Brucella suis (cultures only)
Burkholderia mallei - Pseudomonas mallei – Glanders *(cultures only)*
Burkholderia pseudomallei – Pseudomonas pseudomallei (cultures only)
Chlamydia psittaci - avian strains (cultures only)
Clostridium botulinum (cultures only)
Coccidioides immitis (cultures only)
Coxiella burnetii (cultures only)
Crimean-Congo haemorrhagic fever virus
Dengue virus (cultures only)
Eastern equine encephalitis virus (cultures only)
Escherichia coli, verotoxigenic (cultures only) **a**
Ebola virus
Flexal virus
Francisella tularensis (cultures only)
Guanarito virus
Hantaan virus
Hantavirus causing haemorrhagic fever with renal syndrome
Hendra virus
Hepatitis B virus (cultures only)
Herpes B virus (cultures only)
Human immunodeficiency virus (cultures only)
Highly pathogenic avian influenza virus (cultures only)
Japanese Encephalitis virus (cultures only)
Junin virus

Kyasanur Forest disease virus
Lassa virus
Machupo virus
Marburg virus
Monkeypox virus
Mycobacterium tuberculosis (cultures only) **a**
Nipah virus
Omsk haemorrhagic fever virus
Poliovirus (cultures only)
Rabies virus (cultures only)
Rickettsia prowazekii (cultures only)
Rickettsia rickettsii (cultures only)
Rift Valley fever virus (cultures only)
Russian spring-summer encephalitis virus (cultures only)
Sabia virus
Shigella dysenteriae type 1 (cultures only) **a**
Tick-borne encephalitis virus (cultures only)
Variola virus
Venezuelan equine encephalitis virus (cultures only)
West Nile virus (cultures only)
Yellow fever virus (cultures only)
Yersinia pestis (cultures only)

a *Nevertheless, when the cultures are intended for diagnostic or clinical purposes, they may be classified as infectious substances of Category B*. **NB** this authorisation does not apply to waste material for disposal.