Working with Blood Borne Virus Policy and its associated documents (combined docs)

NHS Lothian

Contents

Click on title to go the individual document

Working with Blood Borne Viruses Policy

Title: **Working with Blood Borne Viruses Policy**			
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Working with Blood Borne Viruses Policy

Version Control

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2010	Consultants in Occupational Medicine and Public Health Medicine	1.0	Initial version
2014	Consultants in Occupational Medicine and Public Health Medicine	2.0	Approved by LICAC
2016-21	Consultants in Occupational Medicine and Public Health Medicine	2.1	Under review. Recommended to PAG by H&S Committee
May 2021	Consultants in Occupational Medicine and Public Health Medicine	3.0	Approved by the NHS Lothian Policy Approval Group
Oct 2023	Consultants in Occupational Medicine and Public Health Medicine	3.1	Technical update

Executive Summary

The overall aim of the policy is to control the risk to patients and staff from health care workers (HCW) infected with blood borne viruses (BBV), to control the risk to HCWs from BBV infected patients and to reinforce good practice. The policy outlines how NHS Lothian will ensure compliance with the Scottish Government's guidance on health clearance for HCW for BBV (Hepatitis B, Hepatitis C and Human Immunodeficiency Virus (HIV)).

Key points include:

- Clarification of roles and responsibilities for delivery of this policy. All HCW involved in clinical roles have a professional duty to protect patients and should be aware of the procedures outlined in this policy. Individuals who believe they may have been exposed to a BBV must seek medical advice. The establishment of BBV fitness criteria and associated testing regimes for staff employed in, or applying for, posts involving Exposure Prone Procedures (EPP - defined as those invasive procedures where there is a risk that injury to the worker may result in the exposure of the patient's open tissues to the blood of the worker).
- This involves the establishment and operation of:
    - Detailed lists of posts assessed as involving EPP and staff employed within these posts.

    - Effective recruitment and pre-employment procedures ensuring no staff commence EPP work prior to confirmation that the BBV status is compatible with the policy.
    - Effective ongoing monitoring, surveillance, self-reporting and staff support systems to ensure BBV status of staff in EPP posts continues to be in accordance with the policy.
- The establishment of policy for the ongoing management and support of BBV-infected HCW, according to the NHS Lothian Redeployment policy.
- The establishment of policy for reporting procedures and risk assessment where a BBV-infected HCW is found to have performed EPP.
- Details of the current NHS Lothian Needlestick Injury Management Procedure, including rapid access for reporting, effective access to post-exposure prophylaxis and follow-up according to agreed guidelines

Working with Blood Borne Viruses Policy

Contents

1.0 Purpose

The overall aim of the policy is to control the risk to patients and staff from health care workers (HCW) infected with blood borne viruses (BBV), to control the risk to HCW from patients and to reinforce good practice.

2.0 Policy statement

In the UK, the policy on the management of healthcare workers (HCWs) infected with blood borne viruses (BBVs) has evolved over time. This evolution has been informed by evidence on the risk of HCWs transmitting blood borne viruses to their patients, the outcomes of patient notification exercises and the recommendations of the Expert Advisory Groups.

In October 2017, a consolidated guideline incorporating previously existing guidance on health clearance of healthcare workers and management of healthcare workers living with BBVs into one document was issued. This guideline, Integrated guidance on health clearance of healthcare workers and the management of healthcare workers living with bloodborne viruses (hepatitis B, hepatitis C and HIV), is regularly updated, with the most recent iteration being in November 2022

This policy updates and replaces the previous Lothian policies for infected healthcare workers namely 'Protecting healthcare workers and patients from Hepatitis B – Action Plan and Supplement' (October 2000), 'Hepatitis C Infected Health Care Workers Action Plan' (December 2003), Scottish Executive guidance 'HIV Infected Healthcare Workers: Guidance on Management and Patient Notification' issued with SE HDL(2005)33 in July 2005, Hepatitis B infected healthcare worker and antiviral therapy CEL 38(2009)2, Practice of exposure prone medical procedures by healthcare workers living with HIV or Hepatitis B 'issued as SGHD/CMO (2014)2; and the Blood Borne Virus aspects of the Health Clearance for TB, Hepatitis B, Hepatitis C and HIV', issued by the Scottish Government 2008.

The aim of this policy is to control the risk to patients and staff from Health Care Workers (HCW) infected, or potentially infected, with blood borne viruses (BBVs) by documenting NHS Lothian requirements and systems for the management of such HCWs. It also aims to control the risk to HCW from patients and reinforce good practice. It represents the definitive plan for implementing, within Lothian, the UK requirements for protecting patients from Hepatitis B, C and HIV as outlined in most recent guidance documents1. In addition, the policy maintains the confidentiality and safe working of staff infected with BBVs and Annex 1 details the NHS Lothian procedure for dealing with incidents involving potential exposure to blood borne viruses.

This policy outlines how NHS Lothian will ensure compliance with the Scottish Government's guidance on health clearance for HCW for BBV (Hepatitis B, Hepatitis C and Human Immunodeficiency Virus (HIV)), and sets out:

- BBV fitness criteria and associated testing (see section 6.0) regimes for staff employed in, or applying for, posts involving EPP.
- Responsibilities (see section 5.0) within NHS Lothian for the delivery of this policy

- the NHS Lothian policy for the ongoing management and support of BBV-infected HCWs, according to the NHS Lothian Redeployment Policy
- a procedure for dealing with incidents involving potential exposure to blood borne viruses is maintained, which allows rapid access for reporting, effective access to Post Exposure Prophylaxis (PEP) and follow-up according to agreed guidelines (see section 6.4)
- the NHS Lothian procedure for the reporting of BBV-infected healthcare workers who have performed EPP to the Director of Public Health (DPH), and outline the
- procedures (see section 6.8) for subsequent risk assessment and patient notification exercise if appropriate.

3.0 Scope

This policy covers NHS Lothian employees, including bank and locum staff and workers who may be coming from high prevalence areas. Agencies supplying staff to NHS Lothian must also comply in full. Education and training establishments and other NHS employers providing staff or students to work at NHS Lothian sites must ensure their staff or students are compliant with no less rigorous standards. General Practitioners, General Dental Practitioners, the Spire Murrayfield Hospital and independent practitioners will be responsible for implementation in relation to themselves and their staff and students, liaising with the Lothian NHS Occupational Health Service (OHS), as required.

This policy specifically relates to all NHS Lothian healthcare workers with direct patient contact.

The BBVs covered by this policy are Human Immunodeficiency Virus (HIV), Hepatitis B Virus (HBV), and Hepatitis C Virus (HCV). The transmission of these viruses to patients from infected staff is an identified risk, which needs to be controlled. However, there is a greater risk to HCWs from the body fluids of infected patients.

Basic control of infection measures provide an important element of BBV infection control, and must be followed by all HCW[3].

After examining the risks, expert UK guidance suggest that formal pre-employment and “in post” clearance for BBV carriage should be limited to those HCWs involved in carrying out EPPs, working in exposure prone environments and performing clinical duties in renal units or any other settings involving renal dialysis.

This policy operates in conjunction with the NHS Lothian Immunisation Policy and NHS Lothian Needlestick Management Protocol for dealing with incidents involving potential exposure to blood borne viruses (Annex 1).

4.0 Definitions

4.1 Healthcare workers (HCW)

HCWs are persons, including students and trainees, whose activities involve contact with patients or with blood or other body fluids from patients in a healthcare setting.

For considerations of Health Clearance, in terms of blood borne virus, the Scottish Government advice relates to HCWs with 'direct patient contact'.

This is defined as 'staff who have regular clinical contact with patients and who are directly involved in patient care'. These include doctors, dentists, midwives, nurses, clinical support workers, paramedics and ambulance drivers, occupational therapists, physiotherapists and radiographers. Students and trainees in these disciplines and volunteers who are working with patients must also be included.

4.2 Non-clinical staff

Non-clinical staff are workers who have social or professional contact with patients, but are not directly involved in patient care. This group includes receptionists, ward clerks, porters and cleaners.

4.3 Exposure Prone Procedures (EPP)

Exposure Prone Procedures (EPP) are defined as follows:

Invasive procedures where there is a risk that injury to the worker may result in the exposure of the patient's open tissues to the blood of the worker (bleed-back). These include procedures where the worker's gloved hands may be in contact with sharp instruments, needle tips or sharp tissues (e.g. sharp spicules of bone or teeth) inside a patient's open body cavity, wound or confined anatomical space, where the hands or fingertips may not be completely visible at all times.

Procedures where the hands and fingertips of the worker are visible and outside the patient's body at all times, and internal examinations or procedures that do not involve possible injury to the worker's gloved hands from sharp instruments and/or tissues, are not considered to be exposure prone, provided routine infection control procedures are adhered to at all times.

Examples of such procedures include:

- taking blood (venepuncture)
- setting up and maintaining intravenous lines or central lines (provided any skin tunnelling procedure used for the latter is performed in a non-exposure prone manner)
- minor surface suturing
- the incision of external abscesses
- routine vaginal or rectal examinations

- simple endoscopic procedures
- Examples of UKAP's advice on which procedures are, and are not, exposure prone are available[1].

5.0 Implementation roles and responsibilities

5.1 Staff responsibilities

5.1.1 Medical Director

The overall responsibility for the operation of this policy rests with the Medical Director, who is required to ensure that the key elements are subject to regular audit.

5.1.2 Director of Human Resources

The Director of Human Resources has the responsibility to ensure that the policy is published and is known by NHS Lothian HCWs.

5.1.3 Local management

The policy requires specific action from management (including service managers, clinical directors and departmental heads), Human Resources, Recruitment Departments, and Occupational Health and Safety.

As a minimum, Department heads must assess this policy for relevance to their employees. Where the policy has relevance i.e. where employees have direct patient contact, the policy should be read and understood by the employees.

5.1.4 Healthcare workers

All HCW involved in clinical roles have a professional duty to protect patients and should be aware of the procedures outlined in this policy. Individuals who believe they may have been exposed to a BBV must seek medical advice.

Staff should be aware of the relevant regulatory bodies' statements on professional responsibilities:

- General Medical Council 2006. Good Medical Practice. www.gmc-uk.org
- General Dental Council. www.gdc-uk.org
- Nursing and Midwifery Council. 2008. The Code – Standards of conduct, performance and ethics for nurses and midwives. www.nmc-uk.org

5.1.5 Other stakeholders

In addition, the following will be responsible for implementation of the policy in relation to themselves, their staff and students:

a. Agencies, education and training establishments and other NHS employers providing staff and students to work at NHS Lothian sites

b. General Practitioners

c. General Dental Practitioners

d. Other independent practitioners including the Spire Murrayfield Hospital

5.2 Ongoing monitoring and surveillance

a. Individuals who believe they may have been exposed to BBV infection, at work or in their personal life, must seek medical advice and if appropriate, undergo diagnostic testing. Where such testing shows positive results, the worker must self-refer to Occupational Health to review their "fitness to work" and may need to cease EPP.

b. Where accidental exposure to blood and body fluids occurs during work within NHS Lothian the NHS Lothian Needlestick Injury Management Procedure should be referred to.

   This policy outlines responsibilities and procedures for dealing with needlestick-type injuries in

   - healthcare workers, and;
   - members of the public presenting to healthcare services.

c. For healthcare workers this includes a risk assessment to be carried out by their line manager:

   by completing the Sharps/Contamination incident form available on the NHS Lothian intranet. The form can be accessed via:
   https://lht.cohort.hosting/Cohort10/External/ExternalRegister.aspx
   OR
   by searching NHS Lothian Occupational Health
   https://weare.nhslothian.scot/occupationalhealthcommercial/) and entering 'Contact us (https://weare.nhslothian.scot/occupationalhealthcommercial/contact-us/) Occupational Health

   Onward referral can then be made for specialist advice as required.

d. Senior managers and departmental heads must ensure that they retain and maintain documented clearance for all staff carrying out EPP.

e. EPP staff subject to OHS follow-up requirements should attend for the required screening or immunisation when requested by the OHS. Where Occupational Health Clearance is withdrawn or where the review dates are exceeded without any clearance, the individual must cease EPP.

f. Clinicians should remind any BBV infected HCW under their care to refer themselves to OHS. If they become aware that an infected HCW is performing EPP or has done so in the past and has not followed the professional requirements of this policy to refer themselves to the OHS, or to modify their practice due to BBV infection, the clinician has a responsibility to inform Occupational Health.

g. Occupational Health will risk assess the situation and notify the Medical Director/Nurse Director as appropriate. The Medical / Nurse Director will then consider who else should be notified.

h. The Medical Director/Nurse Director must ensure that NHS Lothian DPH is notified of any case where a HCW has performed EPP, when their BBV status does not meet the EPP standards as laid down in this policy. The responsibility for instituting and co-ordinating any patient notification exercise rests with the DPH (Annex 7).

i. HCWs, who have carried out EPP when their BBV status does not meet the requirements of this policy, have a personal responsibility to cease EPP and inform the OHS where they will be given support and advice.

5.3 Confidentiality

HCWs' BBV status is subject to the same rights of medical confidentiality as any patient in receipt of medical care or investigation. Every effort should be made to avoid disclosure of the affected worker's identity, or information that would allow deductive disclosure.

6.0 Associated materials

- Operational Procedures for Working with Blood Borne Viruses
- Needlestick Injury Management Procedure
- Blood Borne Viruses – Background for Risk Assessment
- Blood Borne Viruses Exposure Risk Form
- Current recommended HIV Post-Exposure Prophylaxis (PEP)
- Needlestick Injuries and Prevention of HIV Infection
- Post-Exposure Prophylaxis (PEP) Antiretroviral Starter Pack
- Disease-specific procedures for management of HCW's – Hepatitis B
- Disease-specific procedures for management of HCW's – Hepatitis C
- Disease-specific procedures for management of HCW's – HIV
- Requirement for Indentified and Validated Samples (IVS)
- Procedure for reporting and risk assessment of a HCW diagnosed with BBV

The documents listed above were approved by the NHS Lothian Health & Safety Committee.

- Toolbox Talk – Working with BBV Policy

6.1 Lists of EPP posts – (held locally by departments)

Service Managers and Departmental Heads, in conjunction with the clinical director for the service, are responsible for assessing all their clinical posts and must maintain current lists of posts involving EPP.

Posts should only be designated as involving EPP where they meet the definitions in 4.3 above. Over-designation of EPP posts leads to unjustified and inappropriate clinical investigations for screening for which there are ethical implications. Advice to managers is available from the Medical Director and from Consultant Occupational Physicians.

6.2 Recruitment and pre-employment procedures

The recruitment process must:

a. Inform all prospective clinical HCW of NHS Lothian policy for staff who believe they may have been exposed to BBV (point 3.1 below);

b. Inform all prospective EPP staff of NHS Lothian policy for pre-employment BBV screening requirements, which they must complete prior to commencing the relevant post

Prospective EPP staff:

Must comply in full with BBV screening requirements of this policy; failure to do so will determine that the individual will not be employed or allowed to work with NHS Lothian. If appointed, disciplinary action may result if it is discovered that test result misrepresented their BBV status.

The OHS **must**:

a. Assess the BBV status of all prospective EPP staff notified to the service by the recruitment process. Assessment is based on examination of results of previous tests, by conducting tests using identified validated samples or by a mixture of both.

b. Inform the HCW of the results of their evaluation, including the provision of advice on the implications for future employment.

In addition:

I. Where the HCW is already employed by NHS Lothian in another post, the OHS will review their continued fitness for this post based on the new information;

II. When the pre-employment testing is carried out by NHS Lothian OHS, the service is responsible for advising the HCW on the need for further specialist or GP referral.

Service Managers, Clinical Directors and Departmental Heads must ensure that individuals selected for EPP posts do not commence EPP until clearance is provided by the OHS via the relevant recruitment department. Recruitment information & processes.

6.3 Redeployment procedures

NHS Redeployment Policy

a. Where OHS assessments of existing staff determines that the worker is unfit for their employed role or identifies the need to modify practice, the Employee Relations advisor, in liaison with Partnership representatives, will work with the manager of the employee to arrange suitable alternative work which may involve referral to the NHS Lothian Redeployment Policy.

b. Where the OHS assessment indicates occupational causation of the infection, it will be reported statutorily under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations, and the employee will be retained in employment without detriment in pay and conditions.

6.4 Needlestick Injury Management Procedure

A practical step by step procedure on what to do after potential exposure to BBV following a needlestick or other non-sexual incident is contained in the 'NHS Lothian Needlestick Management Protocol' incidents involving potential exposure to blood borne viruses through needlestick injuries and other non-sexual exposures' (hyperlink to be inserted).

6.5 Operational procedures for 'Working with Blood Borne Viruses Policy'

This procedure outlines the practical steps required for the implementation of this policy with regard to recruitment and pre-employment procedures and ongoing monitoring and surveillance.

6.6 Disease specific procedures for management of healthcare workers

These three separate documents detail the NHS Lothian procedures for the management of:

- Hepatitis B virus
- Hepatitis C virus
- HIV in healthcare workers

They outline the procedures for pre-employment testing of staff and management of healthcare workers found to be infected with the viruses.

6.7 Requirements for Identified Validated Samples (IVS)

This procedure outlines the Occupational Health requirements for identified validated samples when testing HCWs for BBVs.

6.8 Procedure for reporting BBV infected HCWs

This procedure outlines the steps to take when a HCW is identified as being infected with a BBV. It details roles and responsibilities, process of risk assessment, need for patient notification and further reporting of cases

7.0 Evidence base

- Integrated guidance on health clearance of healthcare workers and the management of healthcare workers living with bloodborne viruses (hepatitis B, hepatitis C and HIV), UK

Advisory Panel for Healthcare Workers Living with Bloodborne Viruses (UKAP), November 2022

- Scottish Workforce Directorate Employment and Retention Division. *Best Practice Guidance: Hepatitis B infected healthcare workers and antiviral therapy*. http://www.sehd.scot.nhs.uk/mels/CEL2009_38.pdf
- National Infection Prevention and Control Manual - http://www.nipcm.hps.scot.nhs.uk/

8.0 Stakeholder consultation

Consultation with relevant stakeholders occurred when the policy was written. As this is a review of an existing policy, the stakeholders will be made aware of its update.

- Independent Medical & Dental Practitioners
- Spire Murrayfield
- Higher Education Institutions.

9.0 Monitoring and review

This policy will be reviewed and appropriately amended if necessary at two yearly intervals or earlier in line with changes in policy and guidelines.

Needlestick Injury Management Procedure

NHS Lothian

Contents

1. Overview

1.1 Scope

This document gives practical step by step guidance on what to do after potential exposure to blood-borne viruses (BBV) following a needle-stick or other exposure.

It covers injuries sustained by:

- NHS health-care workers (HCW),
- Third sector workers in voluntary agencies providing BBV testing using dry blood spot tests
- Non-occupational injuries

NB: The Occupational Health Service (OHS) ONLY deals with injuries of HCWs

Individuals presenting after **sexual exposure or assault** should be assessed according to the Post-Exposure Prophylaxis for Sexual Exposure (PEPSE) and non-occupational exposure to Blood Borne Viruses.

1.2 Definitions and abbreviations

Anti HBS – Anti Hepatitis B Surface Antigen Antibody
BBV – Blood-Borne Virus
CSHC – Chalmers Sexual Health Centre
GUM – Genito-Urinary Medicine
HBIG – Hepatitis B Immunoglobulin
HBV – Hepatitis B Virus
HCV – Hepatitis C Virus
HCW – Health Care Worker
HIV – Human Immunodeficiency Virus
ID – Infectious Diseases
OHS – Occupational Health Service
PCR – Polymerase Chain Reaction
PEP – Post Exposure Prophylaxis
RHCYP – Royal Hospital for Children and Young People
RIDU – Regional Infectious Diseases Unit
RIE – Royal Infirmary of Edinburgh
SJH – St John's Hospital
WGH – Western General Hospital

1.3 Documents to be used with this procedure

Title	Function
Needlestick Injury Immediate Care and BBV Risk Assessment flowchart	Recommendation for how to optimally manage a needlestick injury, including assessment for each BBV; also available in section 2.

BBV exposure risk assessment form	To be filled out in every case, and forwarded to the relevant specialty in cases of significant exposure
Blood Borne Viruses – Background information for Risk Assessment	Allows you to calculate % chance a source is BBV positive, to perform a risk assessment
Current recommended HIV Post-Exposure Prophylaxis (PEP)	Current NHS Lothian recommended PEP medication
Needlestick Injuries and Prevention of HIV Infection: A Factsheet for Patients	Information about risk of contracting BBVs from needlestick, BBV testing and PEP
Post Exposure Prophylaxis (PEP) Antiretroviral starter pack: Patient Information Leaflet	PEP patient information leaflet. Give to patients who are starting PEP
Testing for Blood Borne Viruses, Information for Patients	Can be handed to patients who are or are considering being tested for BBV

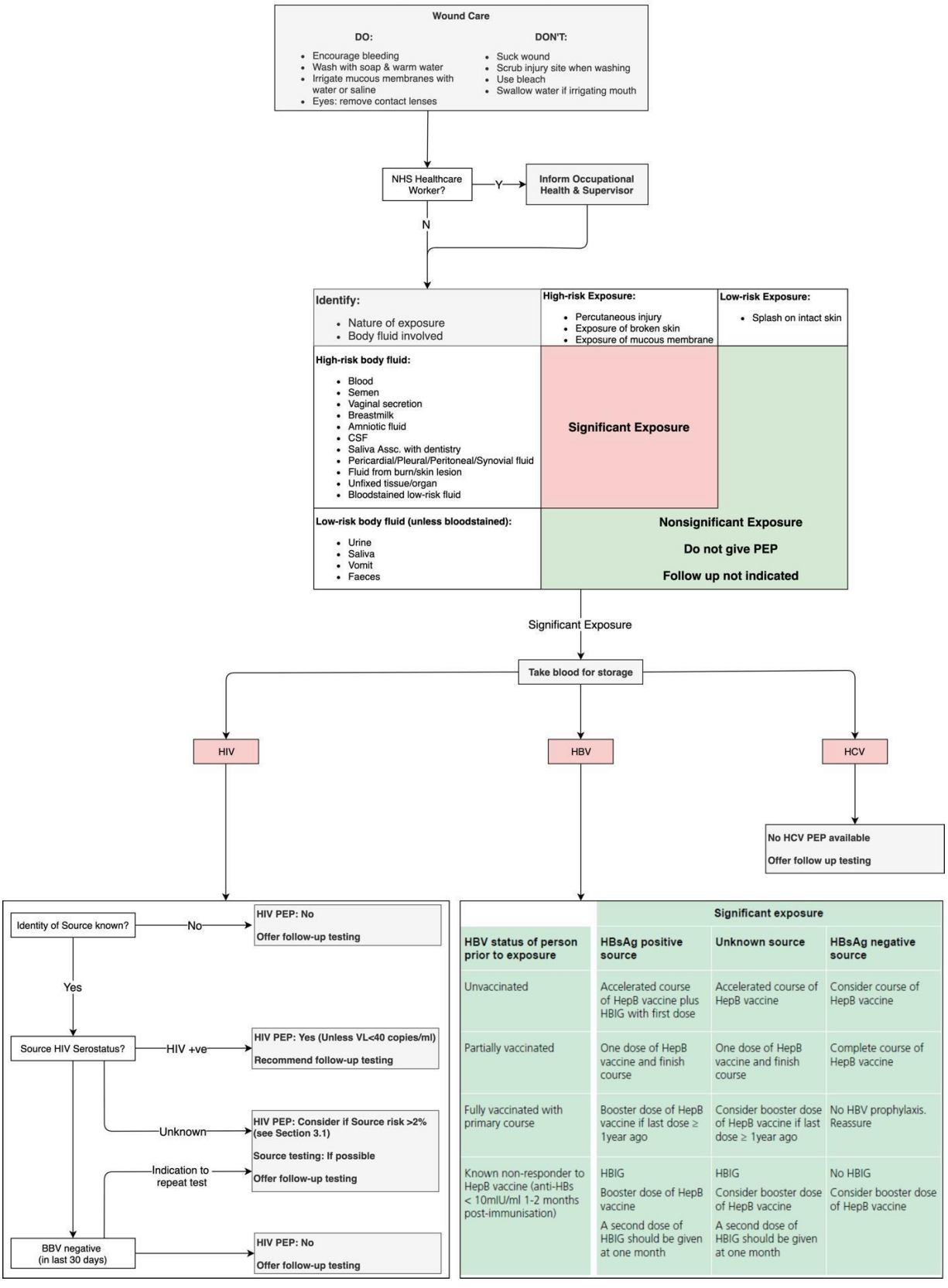
1.4 References

Department of Health. HIV Post-exposure prophylaxis: Guidance from the UK Chief Medical Officers' Expert Advisory Group on AIDS. Revised September 2008 & 2013 Department of Health, Green Book, Chapter 18, updated 2017

BMA: Needlestick injuries and blood borne viruses: decisions about testing adults who lack capacity

2. Immediate Care and Risk Assessment

Needlestick Injury Immediate Care and BBV Risk Assessment



	Significant exposure		
HBV status of person prior to exposure	**HBsAg positive source**	**Unknown source**	**HBsAg negative source**
Unvaccinated	Accelerated course of HepB vaccine plus HBIG with first dose	Accelerated course of HepB vaccine	Consider course of HepB vaccine
Partially vaccinated	One dose of HepB vaccine and finish course	One dose of HepB vaccine and finish course	Complete course of HepB vaccine
Fully vaccinated with primary course	Booster dose of HepB vaccine if last dose ≥ 1year ago	Consider booster dose of HepB vaccine if last dose ≥ 1year ago	No HBV prophylaxis. Reassure
Known non-responder to HepB vaccine (anti-HBs < 10mIU/ml 1-2 months post-immunisation)	HBIG Booster dose of HepB vaccine A second dose of HBIG should be given at one month	HBIG Consider booster dose of HepB vaccine A second dose of HBIG should be given at one month	No HBIG Consider booster dose of HepB vaccine

Initial assessment of needlestick injuries should be conducted according to the above

flowchart, which is also available as a separate document (Needlestick Injury Immediate Care and Risk Assessment flowchart). Priorities are:

- Appropriate wound care.
- Assessing if a Significant Exposure has occurred (requires both a high-risk fluid **and** high-risk exposure).
- If a Significant Exposure has occurred, determining the risk of the injured party contracting BBVs (depends on source patient BBV status, or likelihood the source is BBV+) and offering follow-up testing.

Please note:

- HIV: PEP is **rarely recommended** unless source is known to be HIV+ with a detectable viral load, or from a high-risk group.
- HBV: In non-significant exposure to HBV, consider initiating a course of HBV vaccine if there is ongoing risk (e.g. patient is a healthcare worker, police officer etc.).
- HCV: There is no PEP for HCV. Patients at risk of HCV infection are managed by follow up testing only.

2.1 Risk assessment of bites

Transmission of HIV by human bite is **extremely** rare and occurs when there is severe trauma with extensive tissue damage.

Possible biting scenarios include:

- *HIV+ person bites injured party*: a significant exposure would require:
- Mucosal trauma to the mouth of the biter
- Severe trauma with extensive tissue damage to the victim
- *HIV- person bites known HIV+ person*: significant exposure would require:
- Mucosal trauma to the mouth of the biter
- Significant bleeding from the victim into the mouth of the biter

If neither party is known to be HIV positive then a bite would **not** be considered a high-risk exposure.

2.2 Risk assessment of common injuries in children

Bite injuries are common in pre-school and school-age children and are low-risk.

Occasionally children can sustain community needlestick injuries; these are also low-risk; children should attend RHCYP for assessment & follow up.

3. Managing Significant Exposures

3.1 Assess the risk of transmission

Determine risk using the Needlestick Injury Immediate Care and BBV Risk Assessment flowchart and, if required, the Blood Borne Viruses – Background information for Risk Assessment document. This will inform your course of action. High-risk sources are defined as individuals with a baseline risk of greater than:

HIV: 2%
HBV: 2.5%

3.2 Check vaccination status of injured person

Review the injured person's HBV vaccination status. For children check tetanus status also.

3.3 Take blood for storage

In **every** case of Significant Exposure, take a baseline blood sample (4.5ml or 2x 2.7ml anti-coagulated EDTA, red cap / clotted sample in children) from the injured party and send to RIE Virology for storage. These samples are kept for 2 years, and in the event of a subsequent positive result for BBV the stored sample helps determine BBV serostatus at time of injury.

Occupational Health offer injured healthcare workers follow-up appointments for storage bloods to at 6, 12 and 24 weeks as required.

3.4 Follow-up testing

Follow up testing should be offered in all cases, but recommended in high-risk scenarios.

The information leaflet Testing for Blood Borne viruses can be given to patients prior to testing; this contains basic information on BBVs and issues to consider prior to being tested.

Healthcare Workers will be tested (if required or requested) by Occupational Health, unless a course of PEP has been started – in which case follow up testing will be done in RIDU.

There is a professional obligation on certain HCWs to submit to testing when they have been at significant risk.

The schedule for follow-up testing is as per Table 1 below:

BBV	Test	Timing (Weeks)		
		6	12	24
HIV	HIV Ag/Ab test	Y	Y	N
HBV	HBsAg	Y	Y	Y
	HBcAb	N	N	Y
HCV	HCV Antibody	N	Y	Y
	HCV RNA (PCR)	Y	Y	N

Table 1. Recommended testing schedule for BBVs after significant exposure event.
Note: If giving HIV PEP, testing occurs 6 and 12 weeks from the end of treatment.

Follow up is undertaken as follows:

1. Adults commenced on HIV Post Exposure Prophylaxis (PEP): Regional Infectious Disease Unit:
    - Contact the on-call RIDU registrar via WGH switchboard (0900-2100).
    - Outwith these hours: Obtain a contact number for the injured person and contact the on- call RIDU registrar the next morning. Email the risk assessment form to wgh.infectiousdiseases@nhslothian.scot.nhs.uk.
    - Adults who have **not** been commenced on HIV PEP should be advised to discuss ongoing concerns with their GP.
2. Children: contact the on-call paediatric consultant at RHCYP. If unavailable: See section 8.

Injured party concern: There will be situations where no significant injury has occurred or transmission risk is low, but patient anxiety may determine the need for referral to RIDU for counselling +/- follow up testing. This is appropriate.

3.5 Source testing

The injured worker's line manager should make every effort is made to establish source serostatus. Urgent testing is available, but rarely required (see Section 3.6).

3.5.1 Source testing panel

- HIV antigen/antibody
- HBV surface antigen/core antibody
- HCV antigen/HCV antibody

3.5.2 Informing source patient of test results

- Test results should be conveyed to the source patient, even if negative.
- Any source patient who is newly diagnosed with BBV infection as a result of this process will need immediate access to specialist post-test counselling and assurances about confidentiality. This is accessible at RIDU.

3.5.3 Obtaining consent

A senior member of the source patient's clinical team should approach them and ask them to consent to testing.

The injured HCW should **not** approach the source themselves.

If the HCW sustaining the injury is single-handed, there may be no option but for them to approach the source patient themselves.

In this case, if the source agrees to BBV testing, they should be referred to their GP or A&E. The single-handed practitioner should contact the GP/A&E to discuss the situation.

Brief pre-test discussion and informed consent is required, and can be provided by any competent HCW.

What to tell the source patient.

- Inform them about the incident and reason for the request for a test.

- Discuss the exposed HCW's situation, noting:
    - The benefits of HIV PEP if the source is HIV+, or
    - If HIV-, that there are considerable savings in terms of cost, repeat testing and reduced anxiety for the injured person.

Consent to HIV testing is rarely withheld in these circumstances, when the approach is made in a sensitive manner.

If consent for testing is withheld or cannot be obtained from the source patient then testing cannot occur.

If the source patient is unconscious they cannot consent; do **NOT** carry out testing.

3.6 Urgent BBV testing in NHS Lothian

This is almost never required. In most cases where the risk is considered to be high the injured party can be started on HIV PEP and source status confirmed by non-urgent testing the following day.

For HBV, the only indication for urgent testing is an unvaccinated injured party, where identifying the source as HBV+ would prompt the administration of HBIG.

In extenuating circumstances, urgent source testing can be performed by RIE Virology (results available within 2 hours of arriving at the lab).

Urgent testing procedure:

- Make a verbal request to Virology (via RIE switchboard, 0131 536 1000) – either to the Duty Virologist (0900-1700 Mon-Fri) or the Biomedical Scientist on-call out with these times.
- Take 4.5 ml serum gel (brown cap) blood sample tube
- Send as follows (either via TRAK or paper form):
- All patient and requestor details (including contact details)
- Mark/state 'Urgent: Exposure incident - Source patient'.

4. PEP for HIV

4.1 Timing

- When HIV PEP is required, start as soon as possible, ideally within 1h of a Significant Exposure, but no later than 72h; PEP is ineffective if started after 72h.
- If it is known/highly likely the source is HIV positive, PEP can be started immediately pending the outcome of a more thorough risk assessment.
- Where laboratory staff working with drug-resistant virus are exposed, an immediate expert opinion must be obtained from the ID consultant on-call.
- OHS Nurses should also contact the ID consultant on-call for advice as required.

4.2 Supplying HIV PEP

Before supplying PEP, obtain the following history:

- A clear history of the injury including timeline and source risk assessment.
- Past medical history.
- Drug history, including oral contraception, herbal remedies, over the counter medicines, and recreational drugs.
- Females should be asked about possible pregnancy:
- Conduct urgent pregnancy testing for any woman who may be pregnant.
- Pregnancy is not a contraindication to PEP, but may affect the decision process.
- These patients can be discussed with the on-call ID consultant.

4.3 Starter packs

The current HIV PEP regimen used in NHS Lothian is detailed in Current recommended HIV Post-Exposure Prophylaxis (PEP). A full course is 28 days.

7-day starter packs of PEP medication are available at:

- Emergency departments at RIE and SJH
- Regional Infectious Diseases Unit, Ward 43 (WGH)
- Royal Hospital for Children and Young People Ward 6 (emergency cupboard)
- Roodlands Hospital Ward 1 (back up cupboard)

4.4 Patient information

The doctor providing PEP should print and give to the patient the following leaflets:

- Needlestick Injuries and Prevention of HIV Infection: A Factsheet for Patients
- Post Exposure Prophylaxis (PEP) Antiretroviral starter pack: Patient Information Leaflet

4.5 Follow-up for HIV

4.5.1 Patients starting PEP

- Adults: Should be followed up at RIDU within 48-72 hours so that a decision can be made on continuing therapy, and any additional concerns can be addressed.
- Children: follow-up is with the paediatric ID consultant at RHCYP.
- HIV follow up testing is done at 6 and 12 weeks after **completing** PEP (see Table 1 in section 3.4).
- Patients receiving HIV PEP require baseline FBC, U&Es, LFTs and Phosphate, and repeat testing at days 14 and 28.

4.5.2 Patients not starting PEP

Patients who refuse PEP but agree to follow up testing should be tested as per Table 1.

5. PEP for Hepatitis B

See the Needlestick Injury Immediate Care and BBV Risk Assessment flowchart for recommended actions.

Most HCWs are vaccinated against HBV (and may know their anti-HBs titre). Irrespective of type of exposure:

- **All** fully vaccinated HCWs should be offered a HBV booster
- All non/partially vaccinated HCWs should start/complete a course of HBV vaccine. Those with previous HBV infection require no prophylaxis.

5.1 HBV accelerated vaccination

- Doses at 0, 1 and 2 months (alternatively, 0, 7 & 21 days if more pragmatic) with a booster dose at 12 months.
- See current BNF for adult and paediatric doses.

5.2 Administering Hepatitis B Immunoglobulin (HBIG)

Where indicated, give HBIG as soon as possible and ideally within 48hrs (but can be considered up to a week post-exposure).

HBIG is held in the RIE Emergency department. Dose:

- Adult and Child over 10 yrs, 500 IU by IM injection
- Children <10yrs: contact the paediatric ID consultant at RHCYP (Unavailable: See section 8). Do not co-administer HBIG and HBV vaccine at the same site.

5.3 Follow-up for Hepatitis B

- Those with Significant Exposure should be referred for follow-up testing.
- Follow up testing should be scheduled as per Table 1.
- Follow up everyone who received a course of vaccine.
- Individuals don't need follow-up HBV testing if they are pre-exposure vaccine responders, and anti-HBS titre >100mIU/ml 2-3 months after a full course of vaccine.

6. Managing Healthcare Worker (HCW) injuries

6.1 Informing people the incident has occurred

6.1.1 The injured person

- Report injury to line manager (For medical staff this is the consultant on duty)
- Notify the Occupational Health Service (OHS) by completing the Sharps / Contamination incident form available on the NHS Lothian intranet. The form can be accessed via: https://lht.cohort.hosting/Cohort10/External/ExternalRegister.aspx

OR

- by searching NHS Lothian Occupational Health

(https://weare.nhslothian.scot/occupationalhealthcommercial/) and entering 'Contact us (https://weare.nhslothian.scot/occupationalhealthcommercial/contact-us/) Occupational Health

OR

- By scanning the QR code below which can also be found on the 'Managing sharps and contamination injuries' posters in your work location.

SCAN ME

6.1.2 The line manager

- Clarify that a needlestick or Significant Exposure injury has occurred
- Ensure that the individual reports to OHS for advice and follow-up
- Carry out a risk assessment with assistance from OHS (see section 6.2).
    - For Regional Infectious Diseases Unit (RIDU) and Chalmers Sexual Health Centre (CSHC) staff, the risk assessment will be carried out by the consultant on-call, but the Occupational Health Service must be made aware of the incident by the injured staff member completing the Sharps/ Contamination incident form electronically
- Where high risk exposure occurred ensure that blood is obtained from the Source for BBV testing.

6.1.3 Recording the injury

There is a legal requirement for line management to accurately record injuries occurring within the organisation. Fill out an incident form in **all** cases.

The Datix reporting system must be used. Access to named information on the Datix system is password protected and restricted to key members of staff.

Fill in all details as usual, with the following exceptions:

- Source: Identify by initials and case note number **only**
- Injured person: Identify by initials and date of birth **only**

The full name of the injured party should be written down and kept at ward/department level only. Do not include the name of the injured person on any formal reports.

6.2 Risk Assessment of HCWs

In **every case** fill in a BBV exposure risk assessment form.

- Completion of the risk assessment is the responsibility of the line manager (or senior clinician on duty).
- If required, assistance can be obtained from the Occupational Health Service by contacting the service on 0131 536 1135 option 1 then option 1 (during working hours).

- Email risk assessment form to OHenquiries@nhslothian.scot.nhs.uk
- If the injury is sustained by a single-handed HCW (e.g. salaried dental practitioner), this person should contact the on-call OHS nurse or the duty Infectious Diseases (ID) registrar on-call or consultant for advice.

6.3 Follow-up of HCWs

For HCWs (and third sector workers providing BBV dry blood spot testing) the OHS nurse arranges follow-up +/- need for HBV vaccination.

Following **any** occupational exposure to BBV, HCWs should attend for OHS follow-up as requested by OHS staff and report symptoms/signs of concern at any time.

HCWs who carry out exposure prone procedures (EPP) do **not** need to modify their practice pending test results.

7. Managing Third Sector Workers and Members of the Public injuries

7.1 Risk assessment of Third Sector workers and members of the public

In **every case** fill in a BBV exposure risk assessment form. File the risk assessment in their case notes.

7.1.1 Adults

This is done by the assessing clinician e.g. an emergency physician or GP.

7.1.2 Children

Children up to age 16 years are usually seen at the Emergency Department at Royal Hospital for Children and Young People (RHCYP).

Expert advice can be obtained (at any time) from the paediatric ID physician via switchboard (0131 536 0000). If they cannot be contacted out-of-hours, contact the Paediatric Infectious Disease on-call consultant in Glasgow (0141 201 0000).

7.2 Follow-up of Third Sector workers and members of the public

- Follow up for those who have started HIV PEP is available at RIDU.
- HBV: members of the public may be referred to the NHS Lothian Health and Social Care Partnerships (HSCPs) vaccination service for completion of the vaccination course. This referral is made by completing the Unscheduled Immunisation Referral Form, available via the NHS Lothian intranet.

8. Where to get expert advice

8.1 Adults:

- The ID Registrar is available 0900-2100/7 days a week. ID consultants are available 24-hrs, and can assist with complex cases.
- There is **no need** to contact them in the middle of the night if a decision to supply a PEP starter pack has already been made (Exception: OHS nurses should contact the ID

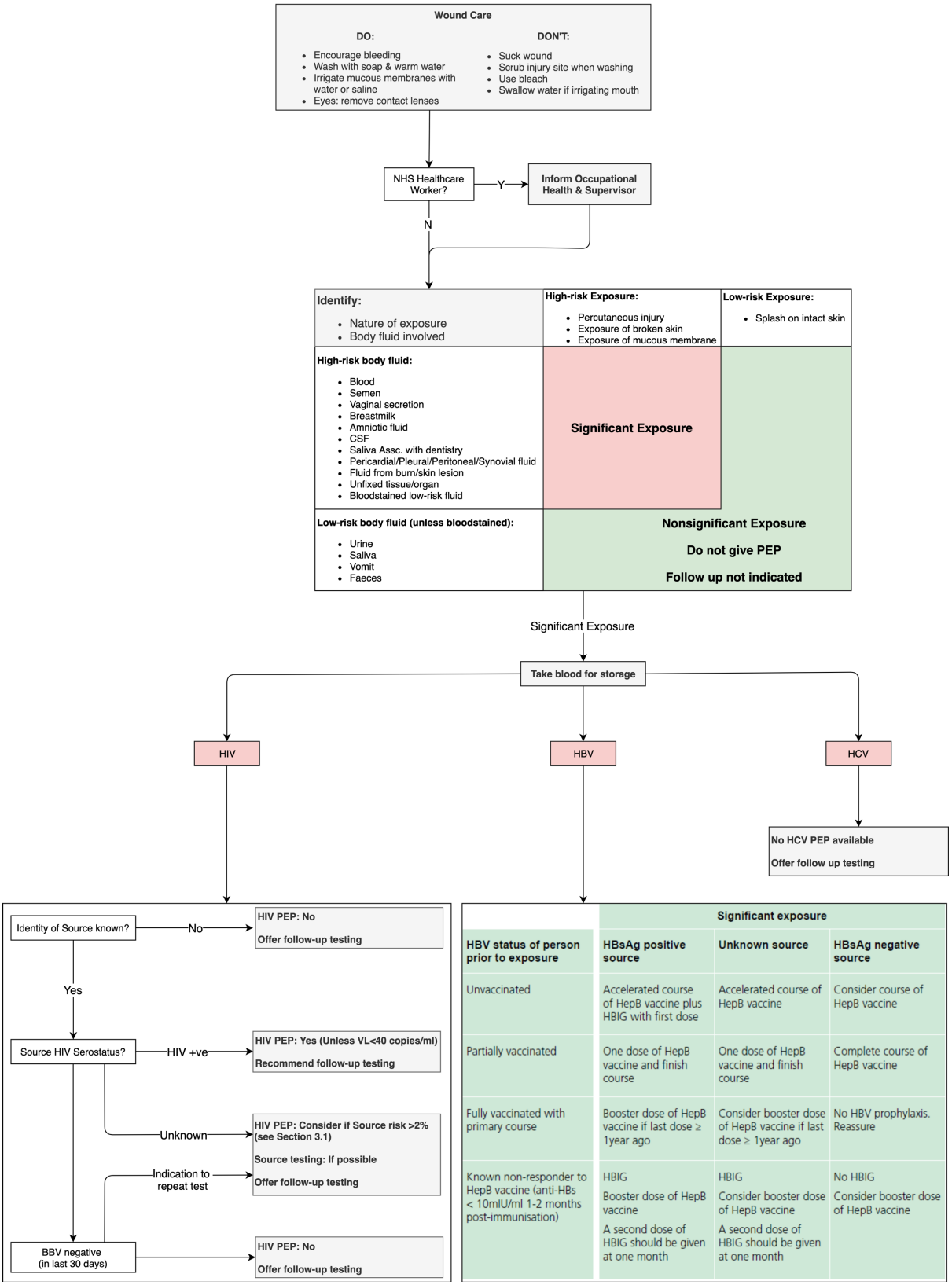
consultant if PEP might be indicated).

- Counselling staff at RIDU are happy to see HCW's and members of the public who have been affected by BBV issues, even if the level of risk associated with this incident is negligible. They can be contacted on 0131 537 2864 or extension 32864 during normal working hours.

8.2 Children:

- Children receiving HIV PEP, HBV vaccinations or follow up testing should be referred to the paediatric ID consultant at RHCYP. No child should be started on PEP without discussing with them.
- The referral letter should be sent to 'Paediatric ID Consultant, c/o RHCYP'.
- The paediatric Infectious Diseases consultant on call in Glasgow (Tel 0141 201 0000) provide cover if the RHCYP ID consultant is unavailable.

Needlestick Injury Immediate Care and BBV Risk Assessment



	Significant exposure		
HBV status of person prior to exposure	**HBsAg positive source**	**Unknown source**	**HBsAg negative source**
Unvaccinated	Accelerated course of HepB vaccine plus HBIG with first dose	Accelerated course of HepB vaccine	Consider course of HepB vaccine
Partially vaccinated	One dose of HepB vaccine and finish course	One dose of HepB vaccine and finish course	Complete course of HepB vaccine
Fully vaccinated with primary course	Booster dose of HepB vaccine if last dose ≥ 1year ago	Consider booster dose of HepB vaccine if last dose ≥ 1year ago	No HBV prophylaxis. Reassure
Known non-responder to HepB vaccine (anti-HBs < 10mIU/ml 1-2 months post-immunisation)	HBIG Booster dose of HepB vaccine A second dose of HBIG should be given at one month	HBIG Consider booster dose of HepB vaccine A second dose of HBIG should be given at one month	No HBIG Consider booster dose of HepB vaccine

Blood Borne Virus Exposure Risk Assessment Form

Name:		Date of Birth:	
Address:		Daytime telephone:	
		Evening telephone:	
		Mobile telephone:	
CHI:		GP Name:	
Date of incident:		GP Address:	
Time of incident:			
Nature of incident:			
Is the injured person a Health Care Worker?		Yes ☐	No ☐

Result of risk assessment:

See Needlestick Injury Immediate Care and BBV Risk Assessment flowchart

*Serum stored (everyone)	Yes ☐	No ☐
Serum tested	Yes ☐	No ☐

HIV risk discussed	Yes ☐	No ☐
Hepatitis C risk discussed	Yes ☐	No ☐
Hepatitis B risk discussed	Yes ☐	No ☐

	Required	Given	Comment
HBV immunoglobulin	Yes ☐ No ☐	Yes ☐ No ☐	
HBV vaccination	Yes ☐ No ☐	Yes ☐ No ☐	
HIV PEP	Yes ☐ No ☐	Yes ☐ No ☐	

***If HIV Post Exposure Prophylaxis (PEP) is required**

Patients receiving HIV PEP will also require FBC, U&Es, phosphate and LFT

Confirm that you have discussed the following:

		Comment
Relative risk of HIV infection	Yes ☐ No ☐	
Side-effects of drugs (see Patient Information Leaflet)	Yes ☐ No ☐	
Possibility of pregnancy	Yes ☐ No ☐	
Pregnancy Test	Pos ☐ Neg ☐ Not done ☐	

Confirm that the following has taken place:

Patient information leaflet given	Yes ☐	No ☐
FBC, LFTs	Yes ☐	No ☐
PEP 7 day starter pack supplied	Yes ☐	No ☐

Follow up:

Follow up offered or recommended	Yes ☐	No ☐

If yes, what arrangements have been made so far? (See NHS Lothian Needlestick Injury Management Procedure)

Signed:	Date/Time:
Print Name:	Designation:

For all significant exposure cases, email completed form to either:

- Adults commenced on HIV PEP: send to RIDU (wgh.infectiousdiseases@nhslothian.scot.nhs.uk)
- Children: email MedicalPaediatrics@nhslothian.scot.nhs.uk marked 'FAO Paediatric ID Consultant' in the subject line.
- Healthcare workers: send to Occupational Health: (OHenquiries@nhslothian.scot.nhs.uk).

For telephone advice, call the on call ID registrar/consultant via Switchboard: 0131 537 1000

Blood Borne Viruses – Background Information for Risk Assessment

Transmission rates for Blood Borne Viruses

Quoted transmission rates are[1]:

- HIV:
  - Percutaneous exposure: ~0.3%
  - Mucocutaneous exposure: <0.1%
- HBV (Percutaneous): ~30% (HBsAg +ve source)
- HCV (Percutaneous): 1-3%

Factors associated with **increased** risk of occupationally acquired HIV infection include:

- Deep injury
- Visible blood on the device which caused the injury
- Injury with a needle which had been placed in a source patient's artery or vein
- Known or likely high viral load in source patient

Estimated prevalence of BBV in Lothian (NB: if no data use General Population values)

	HIV	HCV	HBV
General population[2]	**0.21%** in 15-79-year olds (Lothian, 2017*) Estimated 13% of HIV+ in Lothian are undiagnosed.	**0.4%** Lothian, 2017*	**0.4%** (chronic) overall prevalence in Scotland -**0.2%** (British ethnicity) -**2.2%** (non-British ethnicity)
Men who have sex with men[3-5]	**5.4%** Scotland **6.3%** England & Wales, excluding London (2017)	No higher than general population (unless HIV+)	No data
People who inject or have ever injected drugs[6,7]	**0.6%** in Lothian **~1.7%** England, Wales & N.Ireland (2017)	**47%** in Lothian	**0.19%** (HBsAg+) England, Wales & N.Ireland (2017)
People who inject performance & image enhancing drugs[8]	England & Wales **1.5%** (all) **0.8%** (other risk behaviours excluded)	England & Wales **5.5%** (all) **4.7%** (other risk behaviours excluded)	England & Wales **8.8%** (chronic, all) **8.0%** (other risk behaviours excluded)
Prisoners HMP Edinburgh[9]	No data	All prisoners: **13%** -Ever injected: **34%** -Never injected: **2%**	No data
Prisoners HMP Addiewell[9]	No data	All prisoners: **16%** -Ever injected: **46%** -Never injected: **3%**	No data
Black Africans[4]	Male: **2.5%** Female: **4.7%**	No data	No data
South Asian[10]	No data	No data	Chronic: **0.59%**
East Asian[10]	No data	No data	Chronic: **10.3 – 11.6%**

***** Based on est.3500 still to be diagnosed/treated Lothian (population=883732)

NB: IF SOURCE IS FROM OUTWITH UK DISREGARD TABLE AND SEEK ADVICE

References

1. Health and safety executive.
2. HPS & GCU Report. BBV and STIs – Scotland 2017.
3. MRC Gay and Bisexual Men's Sexual Health Survey Edinburgh, Glasgow and Dundee 2014 unpub. (n=1106)
4. Progress towards ending the HIV epidemic in the UK: 2018 report (estimated diagnosed and undiagnosed).
5. Audit by Lothian GUM, 2009
6. NESI 2017
7. Shooting Up: An update 2018
8. Hope et al BMJ, 2013
9. Taylor et al, HCVAction, 2012
10. Schnier et al,HPS, 2013

Current recommended HIV Post-Exposure Prophylaxis

The following regimen is currently recommended for HIV post-exposure prophylaxis (PEP) in adults in Lothian:

Emtricitabine/tenofovir 200/245mg tablet:

ONE tablet ONCE a day at the same time each day (with food)

and

Raltegravir 400mg tablet:

ONE tablet TWICE a day (every twelve hours)

Both medications are continued for 28 days in total.

For children, please consult the Paediatric Infectious Disease Consultant (available via RHCYP switchboard) before prescribing.

Please note: no drugs are licensed for use as PEP, and these medicines are being used off-label on the basis of clinical experience and trial evidence.

Needlestick Injuries and Prevention of HIV Infection

A Factsheet for Patients

This factsheet gives information about the risk of acquiring HIV from a needlestick injury.

HIV and AIDS

HIV is the virus that causes AIDS. HIV damages the body's immune system and makes you more likely to develop infections. Nearly everyone who is infected with HIV will develop AIDS **if they do not start antiretroviral therapy**.

An HIV positive person can transmit the infection to others by:

- Sexual intercourse
- Blood transmission
- In pregnancy via the placenta
- Through breastfeeding

HIV infection can usually be detected in the blood within 4 weeks after it is acquired, but this can take up to 12 weeks if you are given a course of post-exposure prophylaxis, or PEP medication.

It is not possible to declare you "all clear" until 12 weeks after the needlestick injury, or after you finish the course of PEP.

What is the risk of acquiring HIV from a needlestick injury?

- If the patient has HIV and is taking treatment and the virus is controlled (i.e. undetectable in their blood), **they cannot transmit HIV**.
- The risk of acquiring HIV from a needlestick injury from someone who has HIV and not on treatment is very low - about 3 in 1,000. This means that for every 1,000 people who have a needlestick injury, only 3 get HIV.
- This is the average risk. The risk is higher if the patient has acquired HIV very recently or has HIV and is not on treatment.
- Other factors affect this risk, such as the amount of blood involved and the depth of the needlestick injury.
- Splashing of blood onto mucous membranes (e.g. the eye) or broken skin can transmit infection, but the risk is much lower than with a needlestick.
- Risk from bite injuries is hard to assess but is likely to be very low.
- Splashing of blood onto intact skin does **not** transmit HIV infection

Authorised by the Patient Information Team, July 2021

What tests will be done?

HIV blood tests will be done at 6 and 12 weeks, either after the initial injury or after finishing a course of PEP medication.

What should I do if I am/may be pregnant?

- Do not attempt to become pregnant until you have been given the “all-clear”.
- If you are or think you may be pregnant, you must discuss this with the doctor who assessed you. They will probably want to discuss your treatment with an HIV specialist.

What to do if I need more information

Until you have had your first follow-up appointment you should contact the Occupational Health Service or doctor who assessed you for advice or information. Once you have been seen at RIDU (Western General Hospital) or at Chalmers Sexual Health Centre, the doctor will give you information about contact numbers and other services.

Post Exposure Prophylaxis (PEP) Antiretroviral Starter Pack

Information for Patients

Read this leaflet carefully before you take any medication from this pack.

You must tell the prescriber if you:

- Have diabetes
- Have any history of anaemia
- Are pregnant or breastfeeding
- Are allergic to any medication
- Have any kidney or liver disease
- Have any history of pancreatitis

Or are taking any other medication including:

- contraceptives, inhalers and nasal sprays
- any medication bought at a pharmacy, health food store or supermarket
- any recreational drugs

What is Post-Exposure Prophylaxis (PEP)?

PEP is a course of medicines taken to reduce the risk of a person becoming infected with HIV after they may have come into contact with the virus. The anti-HIV medicines are known as antiretrovirals.

You have been given a 7-day supply of:

- Emtricitabine 200mg / Tenofovir disoproxil 245mg (x 7 tablets)
- Raltegravir 400mg (x 14 tablets)

Will taking PEP medication prevent me from acquiring HIV?

- We know that taking one antiretroviral drug reduces the risk of transmission by about 80% - that is, from 3 in 1,000 on average to about 6 in 10,000. Taking three medicines together reduces the risk even further.
- The risk does not reduce to 0%. This means HIV transmission is still possible although it is very rare.

Why have I been given only 7 days' supply?

This is a "starter pack" only. You need to be assessed by a specialist before the medicines in this pack are finished, to decide whether you should complete a full 28 day course.

How should I take these medicines?

- You should start taking PEP as soon as possible, preferably within one hour, and always within 72 hours of possible contact with the HIV virus.
- Take one of each tablet immediately, and then at regular intervals as directed below (and on the medicine labels).

Emtricitabine 200mg/Tenofovir disoproxil 245mg	Take **one** tablet **once** each day (with food if possible)
Raltegravir 400mg	Take **one** tablet **twice** a day (every 12 hours with or without food)

What should I do if I forget to take my tablets?

- Try not to miss any doses. Not taking the medicines regularly increases the chances the treatment won't work.
- If you do miss a dose, take the missed dose as soon as possible, and then continue with your normal dose at the regular time.
- If it is nearly time for your next dose, forget about the missed dose. Wait and take the next dose at the regular time. Do not take a double dose to make up for a forgotten dose.
- If you vomit less than 2 hours after taking the tablets you should take another dose.

Are there any side-effects I should expect from these medicines?

PEP medication, like all medicines, may cause side effects, although not everybody gets them. If you do develop any side effects they are most likely to be mild and will improve while continuing the course.

Commonly reported side effects (may affect up to 10% of people) include:

- Nausea
- Diarrhoea
- Headache
- Lack of energy or weakness
- Loss of appetite
- Stomach ache
- Dizziness
- Trouble sleeping
- Rash

There are more details on the side effects in the patient information leaflets within the medication packaging.

Serious side effects are unlikely to appear during this starter pack treatment. Tell the hospital department/clinic if you get a rash or experience particularly severe side effects. **Do not stop treatment without seeking medical advice**.

Can I take other medicines?

None of these medicines interact significantly with other drugs, but you should let the doctor know if you are taking anything else. PEP medication may rarely interact with other medicines, including those you have bought yourself (for example antacids, painkillers), herbal medicines and some food supplements. You should tell your doctor or pharmacist about any medicines you currently or sometimes take. Always check with a doctor or pharmacist before starting any new medicines while taking PEP.

Are there any restrictions whilst I'm taking the PEP medicine?

- You should practise safe sex (with condoms) from now until 12 weeks after the course of PEP is complete. This is so we can make sure you are 'all clear'.
- During this 12 week period, we also recommend that you do not donate blood or share toothbrushes, razors or needles.
- Health care workers who carry out exposure prone procedures do not need to modify their practice.

What tests will be done?

- The doctor will take blood tests at regular intervals to make sure that the medicines are not harming you.
- HIV blood tests will be done 6 weeks and 12 weeks after finishing the course of PEP. If the test at 12 weeks is negative, then you are 'all clear'.

Operational Procedure for Working with BBV

The purpose of this procedure is to provide guidance to all relevant aspects of the organisation to implement the Working with BBV policy document. This operational procedure is incumbent on the following key deliverables:

1.0 Key Deliverables

1.1 The implementation of this policy achieves 3 separate but related deliverables:

a) The establishment and maintenance of detailed lists of NHS Lothian posts assessed as involving EPP and lists identifying current staff employed within those posts;

b) The establishment and operation of effective recruitment and pre-employment procedures, ensuring that no staff commence EPP work in NHS Lothian prior to confirmation that their BBV status is compatible with this policy;

c) The establishment and operation of effective ongoing monitoring surveillance, self-reporting and staff support systems, to ensure that BBV status of staff in relevant posts continues to be in accordance with this policy.

1.2 Service Managers, Clinical Directors and Departmental Heads are responsible for the assessment of all their clinical posts and must maintain current lists of posts involving EPP. Posts should only be designated as involving EPP where they meet the agreed definitions (Section 3 of the Working with Blood Borne Viruses Policy). Advice to managers is available from the Medical Director and from Consultant Occupational Physicians.

1.3 Senior Managers, Clinical Directors and Department Heads should advise the HR Department of changes in their EPP post lists as they occur. Senior Managers, Clinical Directors and Department Heads must maintain a current and comprehensive list of EPP Posts in their clinical areas as well as a list of staff appointed to those posts. The full list of staff appointed in roles involving EPP is to be made available to the Occupational Health Service (OHS). This list is to be updated at least on an annual basis or as changes occur.

1.4 The OHS will maintain a current list of staff appointed in EPP posts and request an annual update from clinical line managers

2.0 Recruitment and Pre-Employment Procedures

2.1 Senior Managers, Clinical Directors and Departmental Heads must inform the appropriate recruitment department, with sufficient notice, when new staff (new, permanent, temporary, locum, agency or bank) are required to fill EPP posts. They must also ensure that individuals selected for EPP posts do not commence EPP until clearance is provided by the OHS Service via the relevant recruitment section.

The recruitment process must:

a) Inform all prospective clinical HCW of NHS Lothian policy for staff who believe they may have been exposed to BBV (point 3.1 below);

b) Inform all prospective EPP staff of NHS Lothian policy for pre-employment BBV screening requirements, which they must complete prior to commencing the relevant post

c) Provide Service Managers and Departmental Heads with information from OHS identifying the fitness status of prospective HCW for EPP work, including the need for temporary or permanent restrictions or modifications covering that individual's employment.

2.2 Prospective EPP staff:

Must comply in full with BBV screening requirements of this policy; failure to do so will determine that the individual will not be employed or allowed to work with NHS Lothian. If appointed, disciplinary action may result if it is discovered that test result misrepresented their BBV status.

2.3 The OHS must:

a) Assess the BBV status of all prospective EPP staff notified to the service by the recruitment process. Assessment is based on examination of results of previous tests, by conducting tests using identified validated samples or by a mixture of both.

b) Inform the HCW of the results of their evaluation, including the provision of advice on the implications for future employment.

In addition:

(i) Where the HCW is already employed by NHS Lothian in another post, the OHS will review their continued fitness for this post based on the new information;

(ii) When the pre-employment testing is carried out by NHS Lothian OHS, the service is responsible for advising the HCW on the need for further specialist or GP referral.

2.5 Where any restrictions recommended by Occupational Health cannot be accommodated within the job profile of the EPP / relevant post, an offer of employment is not confirmed. Candidates who are not offered EPP posts, based on pre-employment screening, have the opportunity to apply and be considered for advertised non-EPP roles through the normal recruitment process.

2.6 Specific Groups:

a) Locum and agency healthcare workers

Before commencing EPP duties, all HCWs working on a temporary or intermittent basis must provide evidence of satisfactory BBV status to their Service Manager, Clinical Director or Departmental Head.

b) Visiting Professionals

Clinical Directors are responsible for ensuring that any visiting professional who wishes to take part in clinical work involving EPPs must comply with this policy.

c) Doctors appointed through the South East Scotland Committee for Post Graduate Medical and Dental Education

The Post Graduate Dean's Office is responsible for ensuring that the procedures in this policy are followed for all doctors in training.

d) Medical Students

It is the responsibility of the Medical School to ensure that students comply with the procedures in this policy.

e) Other healthcare students

It is the responsibility of the relevant university or college to ensure that students comply with the procedures in this policy.

f) Healthcare workers applying for posts with Honorary NHS Contracts

New HCWs with honorary NHS contracts must follow the procedures for new appointments as outlined in this policy.

g) Independent contractors

General Practitioners, General Dental Practitioners, private hospitals, hospices and nursing homes, independent midwifery services, podiatric surgeons, ambulance services and other independent practitioners will be responsible for implementation in relation to themselves and their staff and students, liaising with the Lothian NHS Occupational Health Service, as required.

h) Healthcare workers recruited from abroad

For healthcare workers recruited from abroad, only results from UK accredited laboratories can be accepted for compliance with this policy.

3.0 Ongoing Monitoring and Surveillance

3.1. All HCW involved in clinical roles, including those carrying out EPP, have a professional duty to protect patients. Individuals who believe they may have been exposed to BBV infection, at work or in their personal life, must seek medical advice and if appropriate undergo diagnostic testing. Where such testing shows positive results, the worker must self-refer to OHS for a review of their "fitness to work" assessment and may need to cease EPP. Failure to comply with this policy may result in disciplinary action.

3.2. Where accidental exposure to blood and body fluids occurs during work within NHS Lothian the NHS Lothian "Standard Operating Procedure for Management of Needlestick Injuries " should be referred to.

3.3. EPP staff subject to OHS follow-up requirements must present themselves for the required

immunisation or screening when requested by the OHS. Failure to do so may result in disciplinary action. When the HCW is aware that they will be away from the area at the time that follow-up tests will be required, it is their responsibility to liaise with the OHS to arrange alternative dates.

3.4 The OHS must:

a) Operate a system, which recalls EPP staff for follow up immunisation or testing as required by appendices 3-5.

b) Notify Service Managers of the outcome of these recall assessments in the format "fit for EPP / fit for EPP with review / unfit for EPP".

c) Inform Clinical / Service Managers of staff in EPP posts who fail to attend for required follow up actions as required by appendices 3-5.

d) Reassess the BBV fitness status of healthcare workers presenting in accordance with paragraphs 3.1 and 3.2 above. Where this assessment determines the need to amend the individual's fitness status, report the results to the Service Managers in the format listed at paragraph 3.4b above.

e) Provide advice and support to healthcare workers whose status changes as a result of these assessments.

3.5 Service Managers, Clinical Directors and Heads of Departments must:

a) Where OHS indicate that EPP staff have not attended for required follow up actions, Service Managers will ensure EPP work by those individuals does not proceed until appropriate follow up action is complete.

b) Where OHS assessments of existing staff determines that an EPP worker is now unfit for EPP work, Service Managers must ensure that such work stops.

c) Where OHS assessments of existing staff determines that the worker is unfit for their employed role or identifies the need to modify practice, the Employee Relations advisor, in liaison with Partnership representatives, will work with the manager of the employee to arrange suitable alternative work which may involve referral to the NHS Lothian Redeployment Policy. Where the OHS assessment indicates occupational causation of the infection, it will be reported statutorily under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations, and the employee will be retained in employment without detriment in pay and condition.

d) Where the change in blood borne virus status:

i) Results in sickness absence

ii) Occurs as a result of a work related incident

Service Managers, with support from HR, will advise staff on any entitlement under the NHS injury benefits scheme.

3.6 Clinicians should remind any BBV infected HCW under their care to refer themselves to OHS. If they become aware that an infected HCW is performing EPP or has done so in the past and has not followed the professional requirements of this policy to refer themselves to the OHS, or to modify their practice due to BBV infection, the clinician has a responsibility to inform the OHS. Similarly, if the Health Protection Team identifies a HCW who has a BBV and has performed EPP, they have a duty to report this to the OHS.

3.7 In that circumstance, OHS will risk assess the situation and notify the (DPH) / Consultant in Public Health Medicine. A local risk assessment team usually led by the CPHM involving occupational health and virology as a minimum will review the situation seeking guidance from United Kingdom Advisory Panel (UKAP) as required. This process will aim to establish if there has been the risk of transmission to patients and to agree the necessary restrictions of the HCWs future practice. The Medical Director/Nurse Director (for HCWs), or relevant personnel within the training institution for those in training would be notified in cases where regulatory bodies e.g. the GMC, GDC, NMC need to be informed.

3.8 The responsibility for instituting and co-ordinating any patient notification exercise rests with the DPH (Annex 7).

3.9 HCW who have carried out EPP when their BBV status does not meet the requirements of the policy and this procedure, have a personal responsibility to cease EPP and inform the OHS where they will be given support and advice.

4.0 Confidentiality

4.1 HCWs' BBV status is subject to the same rights of medical confidentiality as any patient and client in receipt of medical care or investigation.

4.2 Medical in confidence information is maintained in the individual's Occupational Health record, and is not normally released without the consent of the HCW or a court order.

4.3 The results of OHS assessments are passed to management without clinical information (see 3.4b above). Situations may arise where it could be useful for a HCW to be able to discuss their BBV status in detail with the Medical Director, their line manager and an identified HR representative. In these situations OH clinical information on BBV status will normally only be passed to these individuals with the HCWs consent.

4.4 In exceptional circumstances of patient risk or public safety, it may be necessary for DPH or physicians treating patients to have access to confidential information. This can sometimes be accomplished by anonymising the data, so that it is in no way tied to the name of the HCW. Individuals making a disclosure of confidential information are required to justify their decision. This duty does not end with the death of the worker.

5.0 Associated materials/references:

Materials related to this procedure and the Working with Blood Borne Viruses (BBV) Policy are available on the Working with Blood Borne Viruses Policy page on Policy Online

Disease specific procedures for the management of HCWs – Hepatitis B

Purpose of this procedure:

To provide information and guidance aimed at the identification and management of HCWs infected with hepatitis B virus.

The Procedure:

NHS Lothian Policy for the Management of Hepatitis B Virus

1.0 Hepatitis B Virus Markers

The infectivity of those infected with HBV will vary depending on circulating antigens and antibodies. There are 2 markers that are important in determining whether someone who is infected with HBV can perform EPPs. These are:

1.1 Hepatitis B Surface Antigen (HBsAg)

HBsAg is found during the latter part of the incubation period and acute phase of Hepatitis B Infection. Its persistence is associated with failure to clear virus from the body, though the level of infectivity is considered to be low when the patient is HBeAg negative and anti-e positive.

1.2 Hepatitis B Viral Load (Hepatitis B DNA quantification)

Some individuals infected with Hepatitis B may carry a genetic variant, which does not produce Hepatitis B e-antigen, but is still capable of assembling infectious viral particles. In such cases the person will be Hepatitis B surface antigen positive but have no e antigen markers. Viral load testing should take place for individuals in this category to determine their infectivity.

2.0 Hepatitis B Virus Immunisation

The NHS Lothian policy on HBV immunisation is contained in the NHS Lothian Immunisation Policy.

2.1 All HCWs who will be undertaking exposure prone procedures (EPP) or performing clinical duties in renal units or other settings involving renal dialysis within NHS Lothian will have their carrier status assessed at the time of first injection.

2.2 It should be borne in mind that HCWs are at greater risk of acquiring HBV in the health care setting than patients. Therefore, all staff whose duties may bring them into contact with blood or blood stained fluid or tissues are strongly advised to be immunised against Hepatitis B.

3.0 Determining Fitness for Exposure Prone Procedure Duties and Restrictions

Service Managers, Clinical Directors and Department Heads are responsible for identifying posts and staff performing EPP.

Before carrying out EPPs all HCW must:

a) Show evidence they are not infected with hepatitis B (HBsAg negative). If not previously immunised, they will be offered hepatitis B vaccination and their immunity checked

Or

If a previously immunised and is a non-responder to the vaccine or if vaccination is contraindicated they must be HBsAg negative. Annual testing of the HBV immune status of non-responders in EPP posts or staff performing clinical duties in renal units or other settings involving renal dialysis will be carried out by the OHS.

Or

b) Be HBsAg positive and a viral load less than 200IU/ml (** Registration with UKAP and periodic testing will be required.)

c) Any member of staff, including those who refuse testing, who cannot satisfy any of the above criteria, must not perform EPPs.

On the grounds of patient safety, HCWs who perform EPPs or undertake clinical duties in renal units any other settings involving renal dialysis will not be allowed to practice if they have an HBV DNA level at or above 200 IU/ml regardless of their treatment status.

All HBV infected HCWs who are HBsAg positive should not be restricted from performing EPPs or clinical duties in renal units any other settings involving renal dialysis if:

- their HBV DNA viral load is less than 200 IU/mL (either from natural suppression, or 12 months after stopping a course of antiviral therapy during which time there must have been 2 HBV DNA tests 6 months apart, the first being no less than 6 months after ceasing treatment), and

- they are monitored every 6 calendar months by their consultant occupational physician

Or if:

i. they are on continuous antiviral therapy, and

ii. their viral load is suppressed to below 200IU/mL, and

iii. their HBV DNA levels are monitored every 6 months by their consultant occupational physician

The six (6) month monitoring period should be taken from the date the previous blood sample taken by the occupational health service and not from the date the result was received. Six-monthly viral load testing can be performed no earlier than 24, and no later than 28 complete calendar weeks after the date of the preceding specimen taken for occupational health monitoring purposes.

4.0 Pre-Employment Screening for Exposure Prone Procedure Posts

4.1 All candidates for employment must be notified to the OHS giving adequate notice for pre-employment screening by the person undertaking the recruitment.

4.2 Evidence of satisfactory immunity to Hepatitis B or if Hep BsAg positive, having a viral load less than 200IU/ml is a contractual condition of employment.

4.3 Prospective employees with evidence of failing to mount an immunological response to vaccination will require to be investigated for carrier status, prior to any job offer being made.

4.4 Prospective employees who are HBsAg carriers will all require further investigations to determine their viral load status.

4.5 If restriction from performing EPPs is not considered practicable the following will not be considered for employment to an EPP post:

- Individuals who are HBsAg positive with a viral load greater than 200IU/ml. (Unless there are medical contraindications, individuals employed in EPP posts are expected to avail themselves of the offer of HBV Immunisation).

4.6 Where there are medical contraindications to Hepatitis B immunisation, the implications will be assessed by the Occupational Health Physician.

5.0 Staff Currently in Employment

As with some new starts, situations may arise where staff currently employed, i.e. EPP Posts, will be required to undergo further or periodic testing. The OHS will notify the appropriate Manager of the individual's fitness restriction, indicating the appropriate review date. The OHS will arrange the reviews, but Managers must ensure that EPP ceases if confirmation of future fitness is not received. Managers should seek further advice from HR regarding the ongoing management of the HCW.

6.0 HBsAg Positive HCWs in EPP Posts / Performing Clinical Duties in Renal Units or any other settings involving renal dialysis

6.1 HCWs in post who are found to be HBsAg positive must cease to perform Exposure Prone Procedures until they have been assessed by the occupational health service. Where a viral load in excess of 200IU/ml is detected, then the HCW will not be permitted to perform EPPs or undertake clinical duties on renal units or any other settings involving renal dialysis.

6.2 Advice regarding the duties that HBsAg positive HCWs may continue to perform must be sought from the Consultant in Occupational Medicine.

6.3 Where the viral load is less than 200IU/ml (either from natural suppression, or 12 months after stopping a course of antiviral therapy), the HCW may continue to perform EPPs/ or undertake clinical duties on renal units. However, the HCW must have their viral load re-tested at 6 monthly intervals to ensure that it remains below the accepted limit. If subsequent testing shows that the individual's viral load has risen above 200IU/ml then the HCW will not be permitted to perform EPPs / or undertake clinical duties on renal units.

6.4 Healthcare workers who are HBsAg positive and are on continuous antiviral therapy, and their viral load is suppressed to below 200IU/mL, will have their HBV DNA levels monitored every 6months by their consultant occupational physician. If subsequent testing shows that the individual's viral load has risen above 200IU/ml then the HCW will not be permitted to perform EPPs / or undertake clinical duties on renal units.

6.5 Testing of Hepatitis B viral load must only be undertaken in a designated laboratory. The designated laboratory for NHS Lothian is the Specialist Virology Centre, RIE

7.0 Non-Responders to Hepatitis B Vaccine

7.1 Non-responders to Hepatitis B vaccine are individuals who have had an equivalent of 2 full courses of Hepatitis B vaccine and not produced a satisfactory antibody response (10 IU/ml).

7.2 Staff in post who are vaccine non-responders and who have no markers of previous HBV infection are at risk of acquiring infection. They may continue without restriction of practice, provided that BBV exposure incidents are reported, treated and followed-up.

7.3 Non-responders who perform EPP/ or undertake clinical duties on renal units or any other settings involving renal dialysis will be checked annually, by the Occupational Health Service, for Hepatitis B markers.

8.0 Viral load monitoring and ongoing clearance for HBsAg positive HCWs who wish to perform EPPs or clinical duties in renal units or any other settings involving renal dialysis

8.1 Healthcare workers who are HBsAg positive must accept the following conditions if they wish to undertake EPPs:

- They must be under the care of a designated consultant in occupational medicine.
- They must have their details registered with UKAP-OHR (United Kingdom Advisory Panel – Occupational Health Register)
- Attend the OH service (or other appropriate service) when arranged and to provide an Identified Validated Sample (IVS) for viral load monitoring at the appointed times
- to seek advice if changes in their health condition may affect their fitness to practise or impair their health

8.2 HBV infected HCWs who are cleared to perform EPPs are subject to regular viral load testing at 6 monthly intervals as indicated above.

The monitoring period should be taken from the date the previous IVS was drawn, and **not** from the date the result was received.

The table below sets out the required actions based on viral load tests

DNA Level	**Action**
<60 IU/mL	No action. Retest in 12 weeks or 12 months depending on antiviral treatment status
> 60 but < 200 IU/mL	A case-by-case approach based on clinical judgement should be taken which may result in no action (as above) or recommending that a second test should be done 10 days later to verify the viral load remains below the threshold. Further action will be informed by the test result.
200 IU/mL or above	The HCW should **cease conducting EPPs immediately**. A second test must be done on a new blood sample 10 days later to verify the viral load remains above 200 IU/mL. If the viral load is still in excess of 200 IU/mL, the HCW should cease conducting EPPs until their viral load, in 2 consecutive tests no less than 4 weeks apart, is reduced to <200 IU/mL. If the viral load is below 200 IU/mL then further action should be informed by the test result as above. If test results are unexpected (e.g. from very high viral load to low viral load) then seek further advice from a local virologist or UKAP secretariat. A full risk assessment should be triggered to determine the risk of

	HCW to patient transmission. At a minimum, this will include discussion between the consultant occupational physician and the treating physician on the significance of the result in relation to the risk of transmission. The need for public health investigation/action (e.g. patient notification) will be determined by a risk assessment on a case by case basis in discussion with UKAP.

9.0 Responsibilities of clinicians

9.1 Clinicians should remind any BBV infected HCW under their care to refer themselves to OHS. If they become aware that an infected HCW is performing EPP or has done so in the past and has not followed the professional requirements of this policy to refer themselves to the OHS, or to modify their practice due to BBV infection, the clinician has a responsibility to inform the OHS.

9.2 If the Occupational Health Physician identifies either risk of ongoing transmission or risk to patients previously treated by the HCW, they should notify the Consultant in Public Health Medicine (CPHM) or Director of Public Health (DPH). In cases where regulatory bodies e.g. the GMC, GDC, NMC need to be informed, the Medical Director/Nurse Director (for HCWs), or relevant personnel within the training institution for those in training, would be notified.

Disease specific procedures for the management of HCWs – Hepatitis C

1.0 Purpose of this procedure

To provide information and guidance aimed at the identification and management of HCWs infected with hepatitis C virus.

2.0 Management of Hepatitis C Virus (HCV)

Transmission of Hepatitis C Virus from staff to patients has been documented in the UK.

2.1 All healthcare workers with direct clinical contact, who are new to the NHS, are offered pre-test discussion and Hepatitis C antibody testing by NHS Lothian. For non EPP workers, this is an offer only and there is no requirement on the worker to agree.

2.2 Healthcare workers with direct clinical care have a professional responsibility in terms of health and safety of their patients such that they should seek advice if they believe that they have been exposed to Hepatitis C infection.

2.3 Staff in EPP Posts

Healthcare workers currently in EPP posts who believe that they may have been exposed to Hepatitis C infection must promptly seek and follow confidential professional advice on whether they should be tested for Hepatitis C virus RNA. If they are found to be Hepatitis C RNA positive then they must cease all EPPs.

2.4 Healthcare workers who know they are infected with Hepatitis C are required to report this and must be tested for HCV RNA. Those found to be RNA positive must cease all EPPs.

2.5 Where a member of staff undergoes a successful course of therapy and remains HCV RNA negative 3 months after completion of treatment then they may resume EPPs. A further test for HCV RNA must be taken after a further 3 months to confirm that the HCW remains HCV RNA negative.

3.0 Staff who are to Commence Training or Employment Involving EPPs

3.1 All staff to be employed in EPP posts for the first time (new starts or existing staff) require:

a) to demonstrate that they have been tested for HCV and were:

- HCV antibody negative
- HCV antibody positive but HCV RNA negative at the time of testing.

or

b) to be tested for HCV antibody, and if found positive, to be tested for HCV RNA.

3.2 Any healthcare worker who prior to commencement of employment for an EPP post is found to be HCV RNA positive will not be employed in an EPP post.

3.3 Where a member of staff undergoes a successful course of therapy and remains HCV RNA negative 3 months after completion of treatment then they may be employed. A further test for HCV RNA must be taken after a further 3 months to confirm that the HCW remains HCV RNA negative.

3.4 The timing of HCV testing prior to employment or training for EPP will be dependent upon the professional discipline. Some staff groups where EPPs are integral to the job should be tested prior to commencing appropriate professional training, e.g. dentists and midwives. Others will require testing following completion of basic training and prior to undertaking specialist roles which entail performing EPPs, e.g. GP trainees who will undertake minor surgery and nursing staff who are to be employed in Accident & Emergency departments or operating theatres.

3.5 In NHS Lothian, all staff to be employed in EPP posts must provide evidence of IVS (Identified Validated Sample) testing or be subject to such testing prior to taking up the post. The system of clearance is incorporated into the Fitness Screening by OHS.

4.0 HCV Testing

4.1 Prior to obtaining samples, the Occupational Health Service will explain to staff the testing arrangements and how a positive result may affect future employment requiring performance of EPPs.

4.2 Testing for HCV antibodies requires one IVS (EDTA blood) to be sent to Specialist Virology Centre, RIE. Should the testing indicate the presence of HCV antibodies then a further two IVSs (EDTA blood) must be obtained and sent to Specialist Virology Centre, RIE for HCV RNA testing.

4.3 The Occupational Health Service will inform the HCW of the results and the implications.

4.4 Healthcare workers already undertaking EPPs are not required to cease EPPs whilst awaiting results providing the testing is carried out promptly.

4.5 Any HCW who already know that they are HCV positive or who are intending to undertake professional training for a career that involves EPP who refuses to be tested for Hepatitis C antibody, and if required HCV RNA, will not be permitted to undertake EPPs or be employed in an EPP post.

5.0 Occupational Health Advice for Hepatitis C Infected HCWs

Where a HCW is identified as being infected with Hepatitis C, they will be assessed by an accredited specialist Occupational Physician, who will discuss appropriate further clinical management with the HCW. Advice will also be given on minimising the risk of transmission in the health care setting and to close contacts.

6.0 Responsibilities of clinicians

6.1 Clinicians should remind any BBV infected HCW under their care to refer themselves to OHS. If they become aware that an infected HCW is performing EPP or has done so in the past and has not followed the professional requirements of this policy to refer themselves to the OHS, or to modify their practice due to BBV infection, the clinician has a responsibility to inform OHS.

6.2 If the Occupational Health Physician identifies either risk of ongoing transmission or risk to patients previously treated by the HCW, they should notify the Consultant in Public Health Medicine (CPHM) or Director of Public Health (DPH). In cases where regulatory bodies e.g. the GMC, GDC, NMC need to be informed, the Medical Director/Nurse Director (for HCWs), or relevant personnel within the training institution for those in training, would be notified.

Disease specific procedures for the management of HCWs - HIV

1.0 Purpose of this procedures

To provide information and guidance aimed at the identification and management of HCWs infected with the Human Immunodeficiency Virus (HIV).

2.0 Management of HIV

Current evidence suggests that the likelihood of transmission of Human Immunodeficiency Virus (HIV) from an HIV infected HCW to a patient is extremely low. However, HCWs who are infected with HIV must be assessed with regard to the risk they constitute for patients. Within NHS Lothian this assessment will be carried out in the strictest confidence by an accredited specialist Occupational Physician.

a) Advice will be given on minimising the risk of transmission in healthcare settings and to close contacts.

b) The OHS may recommend appropriate re-deployment if required. Redeployment may be required to protect the HCW e.g. if duties involve exposure to known or undiagnosed TB.

c) The OHS will discuss appropriate further clinical management with the HCW and liaise with the HCW's treating physician to arrange subsequent medical supervision.

2.1 Only HCW infected with HIV who meet strict clearance and follow up criteria may perform exposure prone procedures.

2.2 If there is doubt about whether an HIV infected HCW can safely be employed in a particular clinical area, the OHS will contact the special UK Advisory Panel that has been established specifically to give advice on such matters.

2.3 HIV infected HCWs who do not perform EPPs but who are involved in the clinical care of patients must remain under regular medical and occupational health supervision and receive appropriate advice if their circumstances change.

2.4 All healthcare workers with direct clinical contact, new to the NHS, are offered pre-test discussion and HIV testing at the pre-employment stage by NHS Lothian.

2.5 Staff in EPP posts

Healthcare workers currently in EPP posts who believe they may have been exposed to HIV must promptly seek and follow confidential professional advice on whether they should be tested for HIV. If found to be HIV positive, then they must cease all EPPs.

2.6 Healthcare workers who know they are infected with HIV must cease EPPs until formal evaluation for clearance by a consultant occupational physician.

3.0 Responsibility of HCW

3.1 HCWs have a professional duty to protect patients. Those who believe they may have been exposed to infection with HIV in their personal life or during the course of their work must seek medical advice, and, if appropriate, diagnostic HIV testing. HCWs found to be infected must seek expert medical and occupational health advice. Those who perform or assist in EPPs must obtain further advice on their work practice, as it may need to be modified or restricted to protect their patients.

3.2 If exposure prone procedures are currently being performed these activities must cease whilst expert advice is sought.

3.3 NHS Lothian Director of Public Health (DPH) must be notified when an HIV infected HCW has performed EPPs. The HCW may, request that a physician acting on his/her behalf inform the DPH.

4.0 Staff who commence training or employment involving EPPs

4.1 All staff in NHS Lothian who are to be appointed to an EPP post for the first time (new starts or existing staff) are required to demonstrate that they have been tested negative for HIV.

4.2 Any healthcare worker who, prior to commencement of employment for an EPP post, is found to be HIV positive will be referred to a consultant occupational physician to assess their fitness.

4.3 The timing of HIV testing prior to employment or training for EPP will be dependent on the professional discipline. Some staff groups where EPPs are an integral part of the job are tested prior to commencing appropriate professional training. Others require testing following completion of basic training, and prior to undertaking specialist roles. In circumstances where individuals are to undertake EPP posts for NHS Lothian, where no previous testing has been performed, NHS Lothian OHS will carry out the testing.

4.4 In NHS Lothian, all staff to be employed in EPP posts must provide evidence of IVS (identified validated sample) testing, or be subject to such testing prior to taking up the post. The system of clearance is incorporated into the fitness screening by OHS.

5.0 Fitness of HIV Infected Healthcare Workers to Undertake EPP

5.1 In order to be cleared to perform EPP, HIV infected HCWs must meet, and maintain, the following criteria:

Either

a) be on effective combination antiviral therapy (cART)

AND

b) have a plasma viral load of less than 200 copies per ml

or

c) be an ‘elite controller’ – defined as an individual with HIV not receiving cART who has maintained a viral load below the limits of detection for at least 12 months, based on at least 3 separate viral load measurements.

AND

d) be subject to plasma viral load monitoring by IVS samples every 3 months and

e) be under joint supervision of a consultant occupational physician and their treating physician and

f) be registered with the UKAP occupational health monitoring register (UKAP – OHR).

5.2 Initial clearance of HIV infected HCWs to perform EPPs requires 2 IVS test samples no less than 3 months apart demonstrating viral load levels below 200 copies per ml. The clearance to perform EPP is given by UKAP. The decision to clear the HCW is the responsibility of the consultant occupational physician in consultation with the treating physician. UKAP may be consulted. Any HIV infected HCW cleared to undertake EPP must be entered on the UKAP – OHR by the consultant occupational physician before EPP duties commence.

5.3 Once cleared to undertake EPP, HIV infected HCWs must be subject to IVS viral load testing every 3 months (from the date of sample, not the date of receipt of results). The table below sets out the required actions based on viral load tests

Viral load count test result	Action
<50 copies/ml or below	No action – retest in three months
50-200 copies/ml	A case-by-case approach based on clinical judgement would be taken which may result in no action (as above) or a second test may be done 10 days later to verify the first result. Further action would be informed by the test result.
>200 copies/ml but <1000 copies/ml	A second test should automatically be done 10 days later on a new blood sample to verify the first result. If the count was still in excess of 200 copies/ml, the HCW would cease conducting EPPs until their count, in two consecutive tests no less than three months apart, was reduced to <200 copies/ml.
1000 copies/ml or above	The HCW would cease conducting EPPs immediately. A second test must be done on a new blood sample 10 days later to verify the first result. If the count was still in excess of 1000 copies/ml, a full risk assessment should be initiated to determine the risk of HCW to patient transmission. At a minimum, this will include discussion between the consultant occupational physician and the treating physician on the significance of the result to the risk of HIV transmission. Following a risk assessment exercise, a Patient Notification Exercise (PNE) may be indicated. UKAP advice may be sought at this stage.

5.4 All HCWs performing EPP under these arrangements must be advised by their consultant occupational physician and treating physician of the importance of the 3 monthly

monitoring. Where a HCW does not attend for monitoring or refuses to have tests undertaken, the consultant occupational physicians must inform NHS Lothian management that the individual is no longer cleared to perform EPP. Resumption of EPP activities (following a period of interruption) for whatever reason requires demonstration of a consistent viral load suppression to very low or undetectable levels (i.e. at least 2 viral samples below 200 copies/ml no less than 3 months apart).

5.5 The roles and responsibilities of the respective individuals involved in the monitoring process are set out in section 7 below.

6.0 HIV testing

6.1 Prior to obtaining samples, the Occupational Health Service will explain to staff the testing arrangements and how a positive result might affect their future employment requiring EPPs.

6.2 Testing for HIV requires IVS EDTA blood tube sent to the specialist virology centre at RIE (marked “EPP” to ensure that the sample is tested and not stored).

6.3 The OHS will inform the healthcare worker of the results and implications.

6.4 Healthcare workers already undertaking EPP are not required to cease EPP while waiting for the results of testing.

7.0 Responsibilities of clinicians

7.1 Clinicians should remind any BBV infected HCW under their care to refer themselves to OHS. If they become aware that an infected HCW is performing EPP or has done so in the past and has not followed the professional requirements of this policy to refer themselves to the OHS, or to modify their practice due to BBV infection, the clinician has a responsibility to inform OHS.

7.2 If the Occupational Health Physician identifies either risk of ongoing transmission or risk to patients previously treated by the HCW, they should notify the Consultant in Public Health Medicine (CPHM) or Director of Public Health (DPH). In cases where regulatory bodies e.g. the GMC, GDC, NMC need to be informed, the Medical Director/Nurse Director (for HCWs), or relevant personnel within the training institution for those in training, would be notified.

Requirement for Identified and Validated (IVS) Samples

Purpose:

To provide the definition and process of obtaining an identified and validated sample.

Definition:

An identified and validated sample is a sample taken after the identity of the patient has been verified using an acceptable form of identification and the following criteria, aimed at limiting fraudulent submission of samples or tampering of samples, stated below are met:

An IVS Must Meet the Following Criteria:

a) The individual taking the sample must verify that the HCW is the individual presenting for the testing, by the examination of photographic proof of identity: i.e. Employee's identity badge, new driving licence, passport etc.

b) The sample is taken in an Occupational Health (OH) service centre, or in relation to HIV infected healthcare workers, in the facility of the treating physician. Samples being tested for HIV should be marked "EPP" to ensure that the sample is tested and not stored.

c) Samples are delivered to the laboratory in the routine way, not transported by the HCW.

d) When the sample results are received, they are checked as having been sent from the OH service, or from the treating physician.

e) Within NHS Lothian, IVS sample laboratory reports are confirmed as being "IVS" and signed by the checking OHS staff member on completion of steps above.

f) It is NHS Lothian policy that from 1 January 2006 BBV serology and immunology results require to be IVS certified. HBV testing prior to 1 January 2006 which does not meet IVS standards remains acceptable. HCV and HIV testing requires to be IVS standard irrespective of sampling date.

Acceptance of Results

- NHS Lothian will carry out testing required by this policy unless satisfactory documented evidence is provided.
- Satisfactory documented evidence is a written confirmation of the results from an accredited laboratory, including the laboratory results provided by another OHS, or for non IVS results prior to 1 January 2006 by their General Practitioner or another medical authority.
- Original or photocopied laboratory results alone are not acceptable, without a signature from OHS or their medical authority confirming the identity of the individual tested

Procedure for reporting and risk assessment of a healthcare worker diagnosed with BBV

1.0 Purpose of this procedure

To provide information and guidance on the reporting and investigation of a healthcare worker (HCW) diagnosed with a blood borne virus (BBV), including risk assessment and consideration of patient notification exercise.

2.0 Responsibilities for reporting

2.1 Healthcare workers who might perform EPPs have a responsibility to seek advice and/or a BBV test if they have reason to believe that they may have been exposed to a BBV infection, regardless of whether this was in an occupational or personal setting. HCWs who have carried out EPP when their BBV status does not meet the requirements of this policy have a personal responsibility to inform Occupational Health Service (OHS).

2.2 Clinicians should remind any BBV infected HCW under their care to refer themselves to OHS. If they become aware that an infected HCW is performing EPP or has done so in the past and has not followed the professional requirements to refer themselves to the OHS, or to modify their practice due to BBV infection, the clinician has a responsibility to inform OHS.

2.3 Healthcare workers who have good reason to believe that a HCW infected with BBV is practising in a way which places patients at risk, or has done so in the past, must inform an appropriate person (e.g. Consultant Occupational Health Physician) or where appropriate, the relevant regulatory authority. Wherever possible, the HCW should be informed before information is passed on to an employer or regulatory body.

2.4 If the Occupational Health Physician identifies either risk of ongoing transmission or risk to patients previously treated by the HCW, they should notify the Consultant in Public Health Medicine (CPHM) or Director of Public Health (DPH). In cases where regulatory bodies e.g. the GMC, GDC, NMC need to be informed, the Medical Director/Nurse Director (for HCWs), or relevant personnel within the training institution for those in training, would be notified.

2.5 The responsibility for further risk assessment and investigation rests with the DPH. This investigation is usually led by the CPHM with advice from Health Protection Scotland (HPS) and the United Kingdom Advisory Panel for Health Care Workers Infected with Blood-borne Viruses (UKAP) as required.

3.0 Risk Assessment

3.1 When a healthcare worker with a BBV is reported to the OHS, the Occupational Health Physician will do an initial risk assessment. If the HCW is in an EPP post, or the Occupational Health Physician identifies a previous or ongoing risk to patients, then a formal structured local risk assessment is required.

3.2 This local risk assessment will usually be led by the CPHM, and involve occupational health and virology as a minimum. The risk assessment will aim to identify any factors that may impact on the HCW's ability to practise safely and/or increase the risk of transmission from the HCW to patients.

3.3 If a HCW living with BBV has been recognised as the source of transmission to a patient, the investigating team should make a careful appraisal of the facts, seeking relevant specialist advice. As few people as possible should be involved in this investigation in order to maintain the confidentiality of the HCW. The UKAP proforma should be completed and advice sought from UKAP.

3.4 If there is no recognised transmission, the investigating team should assess factors which would increase the risk of transmission from HCW to patient such as

3.4.1 poor infection prevention and control practice or identified breaches which could have resulted in significant exposure to the blood/body fluids of the HCW e.g. repeated needlestick injuries.

3.4.2 other factors – behavioural, physical, neurological or psychological impairment; relevant medical condition e.g. skin conditions, eczema

3.5 If no risks are identified, the UKAP risk assessment form should be completed and returned to UKAP and no further action is required.

3.6 If risks or concerns are identified, the UKAP risk assessment form should be completed and the case should be discussed with UKAP.

3.7 UKAP will advise on the need for further actions such as review of EPPs undertaken and a patient notification exercise.

3.8 When it has been decided that a patient notification exercise is necessary, a small incident team should be set up locally. The number of individuals who know the identity of the infected HCW should be kept to a minimum at all stages.

4.0 Confidentiality

Every effort should be made to avoid disclosure of the infected worker's identity or information that would allow deductive disclosure. The duties of confidentiality still apply even if the infected HCW has died or has already been identified publicly.

5.0 Associated materials/references:

Working with Blood Borne Viruses Policy

UK Advisory Panel for Healthcare Workers Infected with Bloodborne Viruses (UKAP) 2020 Integrated Guidance on health clearance of healthcare workers and the management of healthcare workers living with bloodborne viruses (hepatitis B, hepatitis C and HIV).