POLICY

The Clatterbridge Cancer Centre NHS Foundation Trust

Workforce & Organisational Development Policy

Blood Borne Virus

Policy reference	PHRMHEPAB
Version	V6.0
Summary	To inform Trust management and employees of the background and risks of hepatitis B infection in the workplace and the requirements needed in terms of immunisation, safe working and the protection of staff and patients.
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Approved by (committee, group, manager)	IPC Committee
Approval evidence received (minutes of meeting, electronic approval)	Electronic Approval
Date approved	18th October 2021
Review date	1st October 2022
Review type (annual, three yearly)	Annual
Target audience	All staff who have direct contact with patients and to the staff who manage these employees
Links to other strategies, policies, procedures	Inoculation Injury - management and prevention of exposure to blood borne viruses. Standard Precautions Policy. Isolation Policy Employment Checks Policy
Protective Marking Classification	Public
This document supersedes	5.3

Consultation

	Authorised by	Date authorised	Comments
Equality Impact Assessment	N/A	N/A	N/A
Fraud department	N/A	N/A	N/A

Circulation/Dissemination

Date added into Q-Pulse	24th November 2021
Date document posted on the Intranet	24th November 2021

Version History

Date	Version	Author name and designation	Summary of main changes
October 2012	5.0	Mike Blackwell – Interim Head of HR Deborah Kretzer – Infection Control Lead Nurse	Full review. Adapted from Wirral University Teaching Hospital Policy Reference: 200 Hepatitis B Virus: Protecting Employees and Patients (Jeanette Berry Occupational Health and Wellbeing Manager). CCC HR & OR have been involved to clarify and reflect CCC health practices and legal requirements for pre-employment screening and staff health issues.
February 2016	5.1	Deborah Kretzer – Infection Control Lead Nurse Lisa Hassey – Head of HR Resourcing & Information	Changes to new Health and Social Care Act Code of Practice Review of current practises in relation to Employment checks
May 2018	5.2	Catherine Hignett-Jones- Employment Services Manager	Review of Employment Checks and Occupational Health Assessment
September 2020	5.3	Emma Dunroe- Assistant HR Advisor Lauren Gould- Infection Control Lead Nurse	Minor changes made: Unit measure to be U/ml Updated Occupational Health provider contact number
July 2021	6.0	Emma Dunroe- Assistant HR Advisor Lauren Gould- Infection Prevention and Control Matron	Full policy review to align to current Occupational Health provider.

1.0 INTRODUCTION

The Trust accepts its responsibilities to ensure as far as that is reasonably practicable that patients and Healthcare Workers (HCWS) are not put at risk of transmission of Hepatitis B, Hepatitis C and HIV (Blood Borne Viruses).

The primary purpose of this policy is to provide further protection for patients from exposure in the clinical care setting to Hepatitis B, Hepatitis C and HIV infection. The measures are intended not to prevent those infected with blood borne viruses (BBVs) from working in the Trust, but rather to restrict them from working in those clinical areas where their infection may pose a risk to patients in their care, if they do not meet the health standards criteria to undertake EPP. This is consistent with existing policy, which imposes restrictions on the working practices of those healthcare workers who are known to be infectious carriers of HIV, Hepatitis B and Hepatitis C.

This policy establishes the guidelines that will be adopted in the Trust in respect of employees who are or may become Hepatitis B, Hepatitis C or HIV infected.

It outlines the responsibility of employees and also the duty of the Trust as the employer.

In January 2014 the Department of Health announced a change in policy to remove restrictions on Healthcare Workers (HCW) with HIV practicing Exposure Prone Procedures (EPP). This change reflects accumulated evidence that shows there is an extremely low risk of transmission from an infected HCW to a patient. All HCW`s with HIV who wish to perform EPP must: be on effective combination antiretroviral drug therapy (cART), and have a plasma viral load < 200 copies/ml, and be subject to plasma viral load monitoring every 12 weeks, and be under joint supervision of a consultant occupational physician and their treating physician. In addition, these HIV infected HCW wishing to perform EPP must be registered on a confidential national register.

Healthcare workers may also benefit from these health clearance arrangements both personally (e.g. earlier diagnosis may lead to curative or life-prolonging treatment and prevention of onward transmission), and professionally (making career choices appropriate to their infection status).

This policy is supplementary to routine occupational health checks and immunisations for other infectious diseases (e.g. for tuberculosis, measles, rubella and varicella).

2.0 PURPOSE

The policy reflects the need to protect patients, to retain public confidence and to safeguard the confidentiality and employment rights of Hepatitis B, Hepatitis C and HIV infected healthcare workers.

To ensure the Trust complies with the Public Health England guidelines.

To clarify individuals roles and responsibilities.

Adequately protect the health, safety and welfare needs of patients.

Retain public confidence in the Trust as a health care provider.

Safeguard the confidentiality of, and the employment rights of Infected Health Care Worker`s.

Ensure that employees who have AIDS or who are HIV positive receive sympathetic and fair treatment in respect of their state of health and their employment.

Ensure confidentiality regarding the condition of employees with Hepatitis B, Hepatitis C and HIV.

3.0 SCOPE

This policy applies to all Healthcare Workers who will perform exposure prone procedures (EPP), including those undertaking clinical training placements and existing staff changing to posts that require EPP.

4.0 DEFINITIONS

4.1 Blood Borne Virus (BBV):

For the purpose of this Policy, the term 'blood borne virus' includes human immunodeficiency virus (HIV), hepatitis B virus (HBV), hepatitis C virus (HCV).

4.2 Exposure Prone Procedures (EPP):

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. spiccules 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 finger tips 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 considered not to be exposure prone provided routine infection control procedures are adhered to at all times. Examples of such procedures include:

- Taking blood;
- 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;
- Incision of external abscesses;
- Routine vaginal or rectal examinations;
- Simple endoscopic procedures.

4.3 Health Care Worker (HCW)

This includes all staff working in hospitals and General Practice who have direct patient contact, e.g. cleaners on wards, some catering staff, ambulance staff, some reception and clerical staff, as well as medical and nursing staff

5.0 RESPONSIBILITIES

It is the responsibility of every member of staff within The Clatterbridge Cancer Centre (CCC) to make themselves familiar with this policy, to comply with its contents and to ensure that the procedures within it are followed. Mandatory infection prevention and control training is provided for all staff groups at Trust Induction and thereafter according to agreed timescales explicit within the Training and development Policies.

In addition, Health Care Workers (HCWs) are under ethical and legal obligation to take all proper steps to safeguard the interests of their patients and this includes ensuring all appropriate steps are taken to protect patients from transmission of infection.

HCWs have a legal and ethical responsibility to ensure that they are safe to practice and must inform Occupational Health in confidence, if they believe they may be carriers of any blood borne virus, including hepatitis B. Strict confidentiality about specific reasons for restriction of practice (if required) will be maintained by Occupational Health

Body fluid exposure incidents to both HCWs and patients must be managed appropriately as set out in the CCC policy: Inoculation Injury - prevention and management of occupational exposure to blood borne viruses (including needlestick & splashes of blood and/or body fluids), available on the Intranet policy A-Z section (under I).

6.0 LAWS & REGULATIONS

6.1 The Health and Social Care Act 2008 Regulations 2010

Regulation 12 concerning cleanliness and infection control - states that the registered person (CCC) must, so far as reasonably practicable, ensure that service users; employees and others who may be at risk of exposure to a health care associated infection are protected against identifiable risks of acquiring such an infection. The associated Code of Practice (2015) sets out the 10 criteria against which the Care Quality Commission (CQC) will judge a registered provider on how it complies with the requirements.

The Code of Practice (2015) states that Occupational Health services for staff should include:

- risk-based screening for communicable diseases and assessment of immunity to infection after a conditional offer of employment and ongoing health surveillance;
- offer of relevant immunisations; and
- having arrangements in place for regularly reviewing the immunisation status of care workers and providing vaccinations to staff as necessary in line with Immunisation against infectious disease ('The Green Book') and other guidance from Public Health England
- having arrangements for identifying and managing healthcare staff infected with hepatitis B or C or HIV and advising about fitness for work and monitoring as necessary, in line with Department of Health guidance;
- liaising with the UK Advisory Panel for Healthcare Workers Infected with Blood-borne Viruses when advice is needed on procedures that may be carried out by BBV-infected care workers, or when advice on patient tracing, notification and offer of BBV testing may be needed;

Other elements required by the act including referral following accidental occupational exposure to blood and body fluids; and management of occupational exposure to infection are covered by the Inoculation Injury Policy.

6.2 European Directive

Directive 2010/32/EU - prevention from sharp injuries in the hospital and healthcare sector. The European Biosafety Network provides further information on implementing EU Directive: http://www.europeanbiosafetynetwork.eu/

The Directive requires risk assessment to be conducted for all situations where there is potential for injury or exposure to blood or other potentially infectious material. Where the results of the risk assessment reveal a risk of exposure, this must be controlled, by:

- Elimination - eliminating the unnecessary use of sharps by implementing changes in practice and on the basis of the results of the risk assessment,
- Safe Procedures - specifying and implementing safe procedures for using and disposing of sharp medical instruments and contaminated waste. The practice of recapping shall be banned with immediate effect;
- Engineering Controls - providing medical devices incorporating safety engineered protection mechanisms;
- Personal Protective Equipment (PPE) - the use of gloves, masks, goggles aprons, gowns etc.

6.3 Health and Safety at Work etc Act 1974

According to Health and Safety Legislation employers must assess the risks to their employees and appropriate PPE must be provided by the employer and used and worn appropriately by the employee for their own protection. Pertinent legislation includes The Management of Health and Safety at Work Regulations 1992; The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations1985; The Health and Safety (Dangerous Pathogens) Regulations 198. The Health and Safety at Work Act also requires the employer through their Occupational Health services, to have an appropriate immunisation policy in place for example immunisation against Hepatitis B virus is recommended for all healthcare workers.

6.4 The Control of Substances Hazardous to Health Regulations 2002

The Control of Substances Hazardous to Health Regulations 2002 (COSHH) (as amended) relate to biological agents (micro-organisms/infection risks) and chemicals (disinfectants), providing a framework of actions designed to control the risk to health from a wide range of substances. The Control of Substances Hazardous to Health Regulations 2002 (COSHH) requires both employers and employees to take responsibility to avoid any risk where possible e.g. safe handling and disposal of sharp implements and the use of personal protective equipment (gloves, face visors) to minimise exposure to blood or body fluids. Employees are required under COSHH to perform their own assessment of risk and to implement necessary measures to protect both themselves and others.

7.0 MAIN BODY OF POLICY

7.1 Professional codes of practice

The logic of one-off testing of new healthcare workers has been questioned, given that healthcare workers will be at on-going risk of occupational (and potentially non-occupational) exposure. Professional codes of practice from regulatory bodies require healthcare workers who may have been exposed to infection with a serious communicable disease, in whatever circumstances, promptly to seek and follow confidential professional advice about whether to undergo testing. Failure do so may breach the duty of care to patients.

This means healthcare workers are under an on-going obligation to seek professional advice about the need to be tested if they have been exposed to a serious communicable disease, avoiding the need for repeat testing. This obligation applies equally to healthcare workers already in post.

7.2 Confidentiality

It is extremely important that healthcare workers infected with Hepatitis B, Hepatitis C or HIV receive the same right of confidentiality as any patient seeking or receiving medical care. Occupational Health Teams, who work within strict guidelines on

confidentiality, have a key role in this process. Occupational Health notes are separate from other hospital notes. Occupational Health team are ethically and professionally obliged not to release information without the consent of the individual.

There are occasions when an employer may need to be advised that a change of duties should take place, but their blood-borne virus status itself will not normally be disclosed without the healthcare worker's consent. Where patients are, or have been, at risk, however, it may be necessary in the public interest for the employer to have access to confidential information.

7.3 Occupational Health Advice

Healthcare workers who are new to the NHS will have access to specialist occupational health advice during the pre-appointment health checks so that the processes can be explained and any questions about the health checks answered. Occupational Health must be able to inform new healthcare workers of the results of their tests, including the implications for their own health and the need for referral for specialist assessment. Appropriate pre-test discussion will include reference to their professional responsibilities in relation to BBVs and a reminder of the ways in which they may have been exposed to BBVs.

Occupational Health Team with Infection Prevention & Control Team will take the opportunity to emphasise the importance of routine infection-control procedures, including the importance of hand hygiene, appropriate use of protective clothing and compliance with local policies in the hospital or unit in which they will eventually work.

Documentation detailing local Infection Prevention and Control Guidance should be provided or signposted.

They will also remind healthcare workers of the importance of avoiding inoculation injuries and other accidental exposures to blood and blood-stained body fluids.

The local arrangements for reporting such incidents should be explained (refer to the Safe Handling of Sharps policy), as should the range of interventions to protect healthcare workers (e.g. post-exposure prophylaxis after accidental exposure to HIV).

The importance of reporting symptoms that are suggestive of serious communicable disease such as blood borne virus infections to Occupational Health Service should be stressed. This is particularly important after the healthcare worker has been exposed to the risk of such infection, regardless of the route of exposure (occupational or not).

It is extremely important that healthcare workers receive the same right to confidentiality as any patient who is seeking or receiving medical care. Occupational Health staff work within strict guidelines on confidentiality. They have a key role in revising local procedures for testing healthcare workers who are new to the NHS for serious communicable diseases. Occupational Health notes are separate from other hospital notes.

Occupational Health staff are obliged, ethically and professionally, not to release information without the informed consent of the individual. There are occasions when an employer may need to be advised that a change of duties should take place, but infectious disease status itself will not normally be disclosed without the healthcare worker's consent. Where patients are, or have been, at risk, however, it may be necessary in the public interest for the employer to have access to confidential information.

The Occupational Health Physician will take responsibility for advising Managers and Human Resources matters relating to the deployment if appropriate of healthcare workers found to be infected with Hepatitis B, Hepatitis C or HIV, including the provision of advice regarding working practices and the monitoring of subsequent employment of the healthcare worker in the Trust.

The Occupational Health Physician and Occupational Health team will provide on-going support for the infected healthcare worker should there be issues relating to retraining, redeployment or early retirement (as appropriate).

7.4 Identified and Validated Samples

Those commissioning tests should ensure that identified and validated samples (IVS) are used for BBVs, that is they should ensure that samples tested are from the HCW in question and not open to fraudulent submission of samples or tampering with samples or results. Results should not be recorded in occupational health records if not derived from an IVS.

An IVS is defined by ANHOPS and ANHONS as meeting the following criteria:

- The HCW should show a proof of identity with a photograph (for example trust identity badge, new driver's licence, some credit cards, passport or national identity card) when the sample is taken
- The sample of blood should be taken in the occupational health service
- HCW's should not provide their own specimens
- Samples should be delivered to the laboratory in the usual manner, not transported by the HCW
- when results are received from the laboratory, the clinical notes should be checked for a record that the sample was sent by the occupational health service, at the relevant time
- HCWs who apply for a post which requires the performance of EPPs and/or can't
- provide appropriate evidence (IVS from another Trust) who decline to be tested for
- HIV, Hepatitis B and Hepatitis C should not be cleared for EPP work.

8.0 Management of Blood-borne Virus In Infected HealthCare Workers with Hep B

8.1 Hepatitis B testing of new healthcare worker

All new HCWs employed or starting training (including students) in a clinical care setting, either for the first time or returning to work in the NHS, who will have direct contact with blood, blood-stained body fluids or patients' tissues, should be offered immunisation against HBV and have their response to immunisation (anti-HBs) checked, including investigation of non-response

8.2 New HCWs who will perform EPPs:

- Be tested for HBsAg first (even if they have already received a course of HBV vaccine) with appropriate pre-test discussion, including reference to their professional responsibilities, and
- If negative for HBsAg be offered vaccination (unless they have already received a course of vaccine) and have their response checked to demonstrate they are immune
- Healthcare workers for whom hepatitis B vaccination is contra-indicated, who decline vaccination or who are non-responders to vaccine (ie those with anti-HBs levels of less than 10 mIU/mL) should be restricted from performing EPPs or clinical duties in renal units, unless shown to be non-infectious. They should be tested annually for HBsAg. A positive HBsAg test, or declining a vaccination for HBV, should not affect the employment or training of HCWs who will not perform EPPs.

8.3 Initial health clearance for HBsAg positive HCW's who wish to perform EPPs:

- HBsAg positive HCWs should have their viral load tested and it has to be <200 IU/Ml. Initial clearance to do EPP/Renal dialysis requires 2 IVS samples taken no less than 4 weeks apart, both need to be <200 IU/Ml. They will then be monitored every 12 weeks.
- The decision to clear individual HCWs to undertake EPPs, is the responsibility of the consultant occupational physician in consultation with

the treating physicians. UKAP may be consulted on the application of the policy, as needed.

8.4 Hepatitis B testing of existing HCW's

Practising HCWs who undertake EPPs are under a professional duty to seek medical advice on the need to be tested if they are aware they may have been exposed to HBV infection, occupationally or otherwise and if found positive, to obtain and follow appropriate clinical and occupational health advice.

8.5 Management of hepatitis B infected healthcare workers and future viral load monitoring

HCWs who are HBsAg positive should not be restricted from performing EPPs if:

- HBV DNA viral load is less than 200 IU/mL (either from natural suppression, or 12 months after stopping a course of antiviral therapy),
- and they are monitored every 12 calendar months by their consultant occupational physician

Or if:

- They are on continuous antiviral therapy, and
- Their viral load is suppressed to below 200IU/mL, and
- Their HBV DNA levels are monitored every 12 weeks by their consultant occupational physician

The 12-week or 12-month monitoring period should be taken from the date the previous IVS was drawn, and not from the date the result was received.

If Vial load is above 200 IU/mL

If a HCW's plasma viral load is above 200 IU/mL, they should be restricted immediately from performing EPPs until their viral load returns to being stable below 200 IU/ML. The significance of any increase in plasma viral load above the cut-off, identified through routine monitoring, should be assessed jointly by the

consultant occupational physician and treating physician with input from appropriate local experts (e.g. consultant virologist or microbiologist).

Please refer to Appendix 2 which sets out the expected course of action for HBV DNA level test results below and above the level for EPP clearance, after the HCW has satisfied the initial clearance criteria.

8.6 Failure to attend or refusal to test

If a HCW does not attend for their monitoring appointment, then they should cease conducting EPPs. 12-weekly monitoring can be performed no later than 14 complete calendar weeks after the preceding IVS specimen taken for occupational health monitoring purposes. 12-monthly monitoring can be performed no later than 54 complete calendar weeks after the preceding IVS specimen taken for occupational health monitoring purposes.

If a HCW does not attend for the missed viral load test within this timeframe (for whatever reason) then resumption of EPPs requires 2 IVS taken no less than 4 weeks apart with both showing a viral load results below 200 copies/mL.

HCWs living with HBV who take a career break from performing EPPs or clinical duties in renal units or any other settings involving renal dialysis, may wish to continue monitoring during this period to facilitate a return to EPPs or clinical activities. Individuals with a break in their monitoring record must meet the criteria for initial clearance before returning to performing EPPs.

8.7 Resuming exposure prone procedures

Resumption of EPP activities following a period of interruption (for whatever reason) requires demonstration of consistent viral load suppression to very low or undetectable levels, which is at least two IVS viral loads below 200 IU/mL, no less than 4 weeks apart, regardless of treatment status.

8.8 Occupational health monitoring arrangements for hepatitis B infected healthcare workers

The model for allowing HCWs who have tested positive for HBV to undertake EPPs relies on continuing care and regular viral load monitoring by both their treating physician and consultant occupational physicians. Effective monitoring requires close working between these two parties to ensure that the policy is being adhered to appropriately, thus minimising the risk of transmission.

All HBsAg positive HCWs who meet the criteria for performing EPPs or clinical duties in renal units should have their viral load measured every 12 weeks or 12 calendar months (depending on their treatment status) using a blood IVS.

Whilst it is important that UKAP should be called upon for advice on the application of the policy as needed, decisions to clear individual HCWs for EPP work or clinical duties in renal units, will ultimately remain the responsibility of the treating and occupational health physicians.

8.9 Testing arrangements

All testing should be carried out by an accredited laboratory that complies with relevant national regulations.

8.10 Breaks in monitoring

HBV infected HCWs who take a career break from performing EPPs may wish to continue monitoring during this period to facilitate a return to EPPs or clinical activities. Individuals with a break in their monitoring record must meet the criteria for initial clearance before returning to performing EPPs.

8.11 Non-exposure prone procedure hepatitis B infected HCW's

HBV infected HCWs who do not perform EPP, must remain under regular medical and occupational health supervision in accordance with good practice. They should follow appropriate occupational health advice, especially if their circumstances change**.**

8.12 Treatment Issues

It is for the HCW to decide, in collaboration with their treating physician, whether they wish to take antiviral therapy for occupational health reasons when it is not clinically indicated, taking account of possible advantages and disadvantages.

Breakthrough infection, with increases in serum HBV DNA and in serum alanine aminotransferase (ALT) levels can be associated with the emergence of resistant virus. With successful oral antiviral treatment the rate of viral replication in HCWs should be suppressed to levels where the risk of emergence of drug resistant strains is likely to be low. Early detection of the emergence of resistance through the quarterly monitoring can be achieved by using sensitive HBV DNA assays, as is recommended here, allowing consideration of an early change in antiviral therapy before patients have been put at appreciable risk.

If breakthrough infections occur due to the development of resistant strains, and HBV DNA levels rise above 200 IU/mL, then it is recommended that the HCW be restricted from performing EPPs until such time as they have been re-stabilised on different oral antiviral drugs. This would be demonstrated by HBV DNA levels of less than 200 IU/mL on two consecutive tests performed no less than 4 weeks apart.

HCWs should be advised by their treating physician of the importance of notifying them of missed doses, drug interactions, or other factors that might influence their viral load, as soon as is practicable and before further EPPs are performed.

It is recommended that if a HCW stops antiviral treatment for any reason, they should immediately cease to perform EPPs and seek the advice of their treating physician if this has not already been obtained. If the HBV DNA levels remain below 200 IU/mL, a year after cessation of treatment, it may be appropriate for the employer to permit a return to EPPs at that time, subject to a future test six calendar months later and annual testing thereafter as is recommended in these guidelines

8.13 Patient Notification Exercises

It is recommended that the finding, at a 12 weekly or annual (12 calendar months) test, that an infected HCW's HBV DNA level has risen above the WHO standard (as verified by the designated laboratory), the cut-off for performing EPPs, would not, in itself, be an indication to trace, notify and offer HBV testing to patients treated by the HCW. The need for patient notification should be determined on a case-by-case basis taking into consideration the significance of the "blip", in line with the principles in existing guidance and UKAP should be consulted for advice.

8.14 Management of accidental exposure

There may be occasions when a patient is accidentally exposed to the blood of an HBV positive HCW in circumstances which may or may not involve EPPs. HCWs should be advised of the action to take in the event of them experiencing an injury during a procedure.

The risk of transmission of BBV infection is directly related to the concentration of the virus in the blood of the source at the time of exposure. An exposure to the blood or body fluids of a HCW with HBV DNA levels below the cut-off carries a very small risk of HBV transmission.

In managing an incident in which a patient has been exposed to the blood of an HBV infected HCW who has been cleared for clinical activities, the usual protocol for an occupational exposure should be followed. The HCW should report the incident to the

clinical supervisor, line manager or other person responsible according to local policies; inform the occupational health service, infection control lead or other nominated person; and inform their treating physician.

Due to the safety profile of the HBV vaccine, and infectivity of HBV, a low threshold for initiating HBV vaccination in the recipient is recommended. Post exposure, HBV vaccine is highly effective at preventing infection, provided that the vaccine is administered ideally within 24 hours, but can be considered up to seven days post exposure. An accelerated course of HBV vaccination should be offered to all patients who have had a significant exposure unless they are already immune due to vaccination or past infection. A booster dose should be considered if the patient has previously been immunised.

Specific hepatitis B immunoglobulin (HBIG) provides passive immunity and can give immediate but temporary protection after accidental inoculation or contamination with HBV infected blood. HBIG is given concurrently with hepatitis B vaccine and should be offered to non-immune patients, or to known non-responders to the vaccine, who have had a significant exposure to an HBV positive HCW. HBIG should be given as soon as possible, ideally within 24 hours, although it should still be considered up to seven days after exposure. Full guidance on post exposure prophylaxis for HBV is contained in Chapter 18 of the UK Health Departments' guidance, Immunisation against infectious disease.

9.0 Management of Blood-Borne Virus Infected HealthCare Workers with Hepatitis C

9.1 Hepatitis C testing of new healthcare worker

All new HCWs employed or starting training (including students) in a clinical care setting, either for the first time or returning to work in the NHS should undergo standard health checks which will include being offered an HCV antibody test and if positive, an RNA. HCWs who will perform, or intend to embark upon careers that rely upon the

performance of, EPPs should be tested for HCV antibody. HCWs have the right to decline testing, in which case they will not be cleared to perform EPPs.

All HCWs who are new to the NHS should be offered a pre-test discussion and an HCV antibody test (and if positive, an HCV RNA test), in the context of their professional responsibilities. During this discussion, they should be given a copy of the guidance from their professional regulatory body, if relevant. It would be helpful to remind them of the ways in which they might have been exposed to HCV.

Being HCV positive, or declining a test for HCV, will not affect the employment or training of HCWs who will not perform EPPs.

New HCWs who intend to perform EPPs should be tested for HCV antibody with appropriate pre-test discussion, including reference to their professional responsibilities. Those who are positive should be tested for HCV RNA to detect the presence of current infection.

Testing for HCV RNA should be carried out by an accredited specialist virology laboratory that is experienced in performing such tests. Those employees that are performing EPP will have to be restricted from practice if they test as HCV antibody positive and RNA positive; unless they meet the criteria below.

9.2 Hepatitis C testing of existing healthcare workers

The Advisory Group on Hepatitis (AGH) has assessed that the risk of transmission of HCV from a HCW of unknown HCV status through EPPs is low and therefore advised that existing HCWs doing EPPs should not be routinely tested for HCV. However, appropriate HCV testing should be conducted for existing HCWs who carry out EPPs who are aware that they may have been exposed to HCV infection, occupationally or otherwise.

9.2 Healthcare workers who know that they have been infected with hepatitis C and who carry out exposure prone procedure

HCWs who know that they have been infected with HCV (ie who have antibodies to HCV) and who carry out EPPs, should be tested for the HCV RNA.

Those found to be carrying the virus (ie who are HCV RNA positive) should be restricted from performing EPPs in future, unless they have responded successfully to treatment.

HCWs who have antibodies to the HCV and are HCV RNA negative and have had a sustained viral response, post treatment, should be allowed to continue performing EPPs.

9.4 HCWs who perform ECPs and who may have been exposed to hepatitis C infection

Practising HCWs, who undertake EPPs are under a professional duty to promptly seek and follow confidential professional advice on whether they should be tested for HCV, as soon as they are aware they may have been exposed to HCV infection, occupationally or otherwise (eg if they meet any of the exposure criteria). Testing should be for antibodies to HCV, and if positive, for HCV virus RNA. HCWs should

take account of their regulatory bodies' statements on professional responsibilities in relation to communicable diseases.

9.5 Criteria for the management of hepatitis C infected healthcare workers

HCWs who have antibodies to the HCV and are HCV RNA negative should be allowed to continue performing EPPs.

HCWs who have active, or current, infection (i.e. who are HCV RNA positive) should be restricted from performing EPPs or commencing training for careers that rely upon performing EPPs.

HCWs living with HCV who have been treated with antiviral therapy and who remain HCV RNA negative for at least 3 months after cessation of treatment should be permitted to return to performing EPPs at that time. As a further check, they should be shown still to be HCV RNA negative 3 months after. Provided that these criteria are met, a return to EPPs is a local decision and does not need to be referred to UKAP (although UKAP is available to provide advice if required).

Testing for HCV RNA should be carried out by an accredited specialist virology laboratory that is experienced in performing such tests. Further guidance on laboratory

testing for BBVs, including management of results from overseas laboratories, is provided in the link below:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/909553/Integrated_guidance_for_management_of_BBV_in_HCW.pdf

9.6 Monitoring Arrangements

HCWs who have active, or current, infection (i.e. who are HCV RNA positive), should be restricted from carrying out EPPs.

HCWs who have antibodies to HCV and are confirmed as having a sustained viral response (i.e. who are HCV RNA negative); following treatment should be allowed to perform EPPs, subject to guidance noted in the criteria above.

Guidance on laboratory testing for BBVs, including management of results from overseas laboratories, is provided in Appendix 1(refer to the link above).

9.7 Non-exposure prone procedure Hepatitis C infected healthcare workers

HCWs who do not perform EPPs but who continue to provide clinical care to patients must remain under regular medical and occupational health supervision in accordance with good practice. They should follow appropriate occupational health advice, especially if their circumstances change.

9.8 Patient Notification exercise

Finding that a HCW has performed EPPs while living with HCV, would not, in itself, be an indication to trace, notify and offer testing to patients treated by the HCW (i.e. undertake a PNE).

The need for a PNE should be determined on a case-by-case basis taking into consideration a risk assessment of the HCW's practice and probity in relation to the risk of BBV transmission to EPP patients, the relative infectious window period, and

significance of any viral load “blip”, in line with the principles in existing guidance. UKAP should be consulted for advice on undertaking a PNE.

9.9 Management of accidental exposure

There may be occasions when an HCV infected HCW is aware of accidentally exposing a patient to their blood. HCWs are under ethical and legal obligations to take all proper steps to safeguard the interests of their patients. This would include ensuring that when an HCV infected HCW is aware of a patient being exposed to their blood, the usual protocol for an occupational exposure incident should be followed. The HCW should report the incident, and their HCV positive status, to the clinical supervisor, line manager or other person responsible according to local policies.

A detailed risk assessment should be performed by the designated doctor. Where exposure is considered significant, the patient should be counselled for symptoms suggestive of acute infection, for example, fever, abdominal pain, vomiting, dark urine, and yellow eyes, and baseline serum for storage should be obtained. Follow up serum for HCV RNA should be undertaken at 6 and 12 weeks post-exposure, or sooner if symptoms of infection are experienced.

There is currently no post-exposure prophylaxis (PEP) for HCV. Early treatment of acute HCV infection has been shown to lead to viral decrease, preventing progression to chronic infection. This underlines the need for careful management and follow-up of exposures and early referral for specialist assessment (e.g. gastroenterology, hepatology, infectious disease units) in the event of transmission.

10.0 Management of Blood-Borne Virus Infected HealthCare Workers with HIV

10.1 Information on EPP testing and HIV

HCWs who intend to perform EPPs should be tested for HIV infection. The presence of HIV antibody should not automatically restrict HCWs from performing EPPs. Confirmation of HIV infection should be undertaken, and plasma viral load measured.

HIV infected HCWs with a plasma viral load >200 copies/mL should be restricted from performing EPPs, or commencing training for careers that rely upon performing EPPs. A strict criteria needs to be met before the employee can recommence EPP. If a HCW's viral load test has been performed outside the UK, refer to the guidance by following the below link:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/909553/Integrated_guidance_for_management_of_BBV_in_HCW.pdf

10.2 HIV testing of non-EPP healthcare workers

All HCWs who are new to the NHS should be offered an HIV test with appropriate pre-test discussion, including reference to their professional responsibilities. During this discussion, they should be given a copy of the guidance from their professional regulatory body, if relevant. It would be helpful to remind them of the ways in which they may have been exposed to HIV.

Declining a test for HIV or having HIV will not affect the employment or training of HCWs who will not perform EPPs. In the event that a HCW discloses that they are living with HIV, consultant occupational physicians should consider the impact of HIV infection on the individual's susceptibility to other infections when advising on suitability for particular posts.

10.3 HIV testing of EPP healthcare workers

Additional health clearance is required for HCWs who will perform EPPs. It will obviously be to the advantage of HCWs to establish their BBV status early as they make their career choices. HCWs have the right to decline to be tested for HIV, in which case, they will not be cleared for EPP work. If they consent to be tested and are positive for HIV, they must meet the below criteria before they can perform EPP

10.4 Management of HIV infected healthcare workers.

Monitoring of HCWs who will perform EPPs HCWs living with HIV must meet the following criteria before they can perform EPPs:

Either

- be on effective cART, and
- have a plasma viral load <200 copies/ml

Or

- be an elite controller

And

- be subject to plasma viral load monitoring every 12 weeks
- be under joint supervision of a consultant occupational physician and their treating physician
- be registered with UKAP-OHR

10.5 Initial health clearance for HIV infected healthcare worekrs who wish to perform exposure prone procedures

HCW's living with HIV with a plasma viral load >200 copies/ml should be restricted from performing EPP's.

Initial clearance to perform EPPs requires a HCW to be on effective combination antiretroviral therapy (cART) and to have had 2 IVS test results taken no less than 12 weeks apart with both demonstrating a viral load below 200 copies/mL.

The decision to clear individual HCWs to undertake EPPs is the responsibility of the consultant occupational physician. UKAP may be consulted on the application of the policy, as needed.

For HCWs currently restricted from EPPs who are already on cART and have a viral load below the clearance threshold, based on an IVS test result at 12-16 weeks since their last undetectable IVS viral load result is sufficient proof on which to grant clearance for conducting EPPs .

HCWs performing EPPs who are living with HIV should continue to be periodically monitored in line with UKAP-OHR requirements

10.6 Viral load monitoring and ongoing clearance for HIV infected healthcare workers performing exposure prone procedures

HIV infected HCWs who are cleared to perform EPPs are subject to viral load testing every 12 weeks while continuing to perform such procedures.

The 12 week period should be taken from the date the previous IVS was drawn, and not from the date the result was received.

If a HCW's plasma viral load rises above 1000 copies/mL, they should be restricted immediately from carrying out EPPs until their viral load returns to being consistently below 200 copies/mL in at least two consecutive tests no less than 12 weeks apart. The significance of any increase in plasma viral load above 200 copies/mL and below 1000 copies/mL, should be assessed jointly by the occupational health and treating

physicians with input from appropriate local experts (eg consultant virologist or microbiologist).

The table in Appendix 3 sets out the expected course of action for viral load test results are below and above the level for EPP clearance.

10.7 Failure to attend or refusal to test

If a HCW does not attend for their monitoring appointment, then they should cease conducting EPPs. 12-weekly monitoring can be performed no later than 14 complete calendar weeks after the preceding IVS specimen taken for occupational health monitoring purposes.

If a HCW does not attend for the missed viral load test within 14 weeks from the date the previous IVS was drawn (for whatever reason) then resumption of EPPs requires demonstration of consistent viral load suppression to very low or undetectable levels, by 2 samples taken no less than 12 weeks apart demonstrating viral load below 200 copies/mL.

10.8 Resuming exposure prone procedures

HCWs living with HIV who take a career break of more than 14 weeks from performing EPPs may wish to continue 12 weekly monitoring during this period to facilitate a return to EPPs. Individuals with a break in their monitoring record must meet the criteria for initial clearance before returning to EPP activities.

10.9 Elite Controllers

Elite controllers comprise a small proportion (0.2-0.55%) of all people living with HIV, who are not receiving antiretroviral therapy and have maintained their viral load below the limits of assay detection for at least 12 months, based on at least three separate viral load measurements.

A HCW who meets the definition of being an elite controller can be cleared for EPP activities without being on treatment, but remains subject to 12 weekly viral load monitoring to ensure they maintain their viral load below 200 copies/mL and to identify any rebound promptly. Any such cases should be referred to UKAP for advice on a case-by-case basis.

10.10 Occupational Health Monitoring arrangements for HIV infected healthcare workers

The model for allowing HCWs living with HBV or HIV to undertake EPPs whilst on therapy relies on continuing care and regular viral load monitoring by both their treating physician and consultant occupational physicians. Effective monitoring requires close working between these 2 parties to ensure that the policy is being adhered to appropriately, thus minimising the risk of transmission.

Where a healthcare establishment's OH service does not have its own consultant occupational physician, arrangements should be put in place for this advice to be sought from such a consultant outside the establishment. Suitable arrangements must be in place for agency or locum staff, including dental staff, to ensure that they have a designated consultant occupational physician who is responsible for their monitoring, in accordance with this guidance.

All HCWs living with HBV or HIV who perform EPPs should have their viral load measured regularly using a blood IVS. Blood testing for this purpose will usually be carried out by the OH service, but where this would give rise to duplication of testing, local arrangements should be made between the treating physician and the OH service to ensure that blood drawn from HCWs for viral load measurements in Genitourinary Medicine (GUM)/Sexual Health or Infectious Diseases settings follows the principles of an IVS.

To support and monitor implementation of the policy and to ensure patient safety, all HCWs living with HBV or HIV including locum staff, who wish to perform EPPs (and for HCWs living with HBV, and who meet the criteria for clearance, must be monitored locally and registered on the UKAP-OHR, a central confidential register, managed by PHE (on behalf of Health Protection Scotland, Public Health Wales, and the Public Health Agency for Northern Ireland) and overseen by UKAP21 .

Each HCW must be registered onto the UKAP-OHR by their designated consultant occupational physician. Their ongoing viral load monitoring data should be reported to UKAP-OHR by the consultant occupational physician periodically in line with this guidance.

Action taken as a result of an increase in viral load should be reported using the register to record that restrictions on EPP performance are put in place appropriately and, where necessary, risk assessments and patient notification exercises are carried out.

The UKAP-OHR is a secure and confidential system. Access to the individual records of the HCWs on the register is limited to the designated consultant occupational physicians responsible for the care, monitoring, management and EPP clearance of the HCW.

Delegated authority may also be given by the consultant occupational physician to specific named individuals within a given OH service to undertake these roles on behalf of the consultant occupational physician. Limited access will also be given to a small number of individuals who manage the register on behalf of UKAP.
Whilst it is important that UKAP should be called upon for advice on the application of the policy as needed, decisions to clear individual HCWs for EPP work remain the responsibility of the consultant occupational physician.

10.11 Testing arrangements

Laboratory testing should be undertaken by Clinical Pathology Accreditation (UK) Limited accredited virology laboratories.

10.12 Breaks in monitoring

HIV infected HCWs who take a career break from performing EPPs may wish to continue 12 weeks monitoring during this period to facilitate a return to EPP activities. Individuals with a break in their monitoring record must meet the criteria for initial clearance before returning to EPP activities.

Non-exposure prone procedure HIV infected healthcare workers:
HIV infected HCWs who do not perform EPPs but who continue to provide clinical care to patients, must remain under regular medical and occupational health supervision in accordance with good practice.

10.13 Treatment Issues

HCWs should be advised by their treating physician of the importance of notifying them of missed doses, drug interactions, or other factors that might influence their viral load, as soon as is practicable and before further EPPs are performed.

10.14 Management of treatment failure or suboptimal treatment response

If there is any suggestion that the HCW's infection is no longer controlled by their antiretroviral treatment, the treating physician overseeing the case may consider it appropriate that viral load tests are performed sooner than the next 12 week test. Advice on the management of suspected treatment failure or suboptimal response should be sought from appropriate specialist team.

10.15 Patient notification exercises

Finding that the viral load of a HCW living with HIV has risen above the cut-off for performing EPPs would not, in itself, be an indication to trace, notify and offer testing to patients treated by the HCW (i.e. undertake a PNE).

The need for a PNE should be determined on a case-by-case basis taking into consideration a risk assessment of the HCW's practice and probity in relation to the risk of BBV transmission to EPP patients, the relative infectious window period, and significance of any viral load "blip", in line with the principles in existing guidance.

UKAP should be consulted for advice on undertaking a PNE (see Part E for contact details, by accessing the below link :)
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/909553/Integrated_guidance_for_management_of_BBV_in_HCW.pdf

10.16 Management of accidental exposure

There may be occasions when a HCW living with a BBV is aware of accidentally exposing a patient to their blood or body fluid. These incidents should be managed in accordance with local needle stick injury policies and in consultation with the local health protection team.

11.0 TRAINING

All new staff made aware of this policy and procedure at induction and thereafter according to the Infection Prevention and Control elements within the Mandatory Training Matrix. Staff will be also updated via the intranet and Team Brief process.

12.0 AUDIT

This policy will be reviewed annually by the Workforce and OD Department and Occupational Health to ensure that correct processes and procedures are being adhered to. The Resourcing and Recruitment team will be responsible for ensuring that all pre-employment checks are completed in line with Service Level Agreements.

13.0 REFERENCES

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Public Health England (2014). The Management of HIV infected Healthcare Workers who perform exposure prone procedures: updated guidance, January 2014.
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14.0 APPENDICES

Appendix 1 Quick Reference Guide

This policy must be followed in full when developing or renewing and amending Trust procedural documents.

For quick reference the guide below is a summary of actions required. This does not negate the need for the document author and other involved in the process to be aware of and follow the details of the policy.

1. All clinical Health Care Workers (HCW) to be assessed for immunity to hepatitis B.
2. Non-immune clinical HCW to be offered appropriate immunisations against hepatitis B in the Occupational Health Department.
3. All Exposure Prone Procedures (EPP): see section 4 for definition) workers to have evidence of hepatitis B surface antigen testing and viral load measures where indicated.
4. Immunisations must be used in conjunction with Standard Precautions to prevent risk of infection e.g. compliance with hand hygiene, personal protective equipment, aseptic technique and safe handling of sharps procedures.
5. All sharps injuries and contamination incidents must be reported to A+E and Occupational Health Department.
6. Following a sharps injury or contamination incident from a hepatitis B positive source, a booster immunisation should be given.
7. Further information about hepatitis B vaccination can be obtained from Occupational Health Department on 0151 482 7635

Appendix 2 Expected Course of Action for HBV DNA level test results

HBV 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[28] 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.

Appendix 3 Expected Course of Action for Viral Load test results

Viral Load count test Result	Action
<50 copies/mL or below	No action – retest in 12 weeks
>50 but <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 should 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 that the viral load remains above the threshold. If the count is still in excess of 200 copies/mL, the HCW should cease conducting EPPs until their count, in 2 consecutive tests no less than 12 weeks apart, is reduced to <200 copies/mL. If the viral load was below 200 copies/mL then further action will 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.
1,000 copies/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 1,000 copies/mL. If the count is below 1,000 copies/mL further action will 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. If the count is still in excess of 1,000 copies/mL, 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 further 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.