The Newcastle upon Tyne Hospitals NHS Foundation Trust

Policy for the Health Clearance of Healthcare Workers and the Management of Healthcare Workers infected with Blood Borne Viruses
(Hepatitis B, Hepatitis C and HIV)

| Version No. | 5 |
| Effective From | 18 April 2018 |
| Expiry Date | 18 April 2021 |
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| Ratified By | Infection Prevention and Control Committee |

1 Introduction

The primary purpose of this policy is to provide protection for patients from exposure in the clinical care setting to viral infection with Hepatitis B, Hepatitis C and HIV. The measures are intended not to prevent those healthcare workers (HCWs) infected with blood-borne viruses (BBVs) from working in the Trust, but rather outline screening and monitoring arrangements when working in those clinical areas where their infection may pose a risk to patients in their care.

This policy clarifies the duties of HCWs, their medical advisers and employers, and describes

Section 6.1 the health clearance measures for ‘new HCWs’ - standard health clearance and additional health clearance including management of hepatitis B immunisation non responders

Section 6.2 the management and follow up of infected HCWs who perform Exposure Prone Procedures

Section 6.3 procedures which should be followed if a Patient Notification Exercise is being considered.

This policy is supplementary to occupational health checks and immunisations for other infectious diseases (e.g. for tuberculosis, rubella and varicella). It should be read in conjunction with Control of infection in healthcare workers and ‘Prevention and control of Tuberculosis’

2 Scope

This policy applies to all ‘new HCWs’ who will be performing exposure-prone procedures (EPPs) for the first time. Those procedures where an opportunity for HCW-to-patient transmission of blood borne viruses does exist are described as
exposure prone (EPP). These screening criteria are also applicable to HCW in renal units and these HCW are included in all subsequent references to HCW under taking EPP.

See section 5 Definitions, including new Health Care Workers ‘new HCW’ and EPP tasks.

3 Aims

The primary purpose of this policy is to protect patients from exposure in the clinical care setting to viral infection with hepatitis B, hepatitis C and HIV.

4 Duties (Roles and responsibilities)

Chief Executive
The chief executive has overall responsibility for ensuring that the Trust meets its statutory and non-statutory obligations.

Director of Human Resources
Director of Human Resources is responsible for ensuring that the requirements of this policy are effectively implemented.

Occupational Health Service (OHS)

HCWs new to the NHS must have access to specialist occupational physician (Consultant) occupational health advice during the on commencement health checks, so that the processes can be explained and any questions about the health checks answered. Further, the OHS must be able to inform new HCW’s of the results of their tests, including the implications for their own health and the need for referral for specialist assessment.

While the Consultant has responsibility for occupational medical management and assessment, if a consultant is not immediately available, HCWs may initially seek advice from occupational physicians or nurses within the team. The physician or nurse should make every effort to arrange for the HCW to see the consultant occupational physician as soon as possible.

OHS will adopt a proactive role in helping HCWs to assess if they have been at risk of BBV infection and encourage them to be tested, if appropriate. It is the responsibility of the occupational health service to ensure that new HCWs who intend to perform EPPs, have the necessary clearance to do so. OHS should explain the testing arrangements for health clearance and how BBV infection will affect continued performance of EPPs.
After testing, OHS will inform HCWs of the results of their tests and the implications for their working practice, including where appropriate any requirements for further follow up and monitoring. All infected HCWs must be given accurate and detailed advice on ways of minimising the risks of transmission in the healthcare setting and to close contacts. It is recommended that referral of infected HCWs to the appropriate physician for specialist clinical assessment (if this has not already taken place), should be made by the OHS, and not by self-referral.

It is extremely important that HCWs infected with hepatitis B, hepatitis C or HIV receive the same right of confidentiality as any patient seeking or receiving medical care. OHS staff, who work within strict guidelines on confidentiality, have a key role in this process. OHS clinical notes are separate from other hospital notes. OHS staff 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 must take place, but the blood-borne virus status itself will not be disclosed. 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— in the event of a Patient Notification Exercise.

Responsibility for the ongoing monitoring of infected HCWs cleared to perform EPPs, in accordance with this policy, rests with the Consultant occupational physician working closely with the HCW’s treating physician. Within this context, the treating physician is responsible for providing the necessary regular care for the infected HCW with respect to managing their BBV infection.

OHS will also remind HCWs of the importance of avoiding needle stick injuries and other accidental exposures to blood and blood-stained body fluids.

The local arrangements for reporting such accidents should be explained, 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 TB or BBV infection to the OHS must be stressed. This is particularly important after the HCW has been exposed to the risk of such infection, regardless of the route of exposure (occupational or not).

The Consultant occupational health physician will take responsibility for co-coordinating matters relating to the re-deployment of HCWs found to be infected including the provision of advice regarding working practices and the monitoring of subsequent employment of the healthcare worker in the Trust.
The Consultant occupational physician will advise the infected HCW, human resources and manager in relation to retraining, redeployment or early retirement (as appropriate).

**Human Resources Recruitment**
The Trust has a duty to publicize health clearance requirements in job descriptions and application packs.

**Infection Prevention and Control Teams**
Infection prevention and control teams, working alongside OHS, 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 Policies should be provided or signposted.

**Managers**
Managers are responsible for ensuring that staff are aware of this policy. If OHS advises that the HCW is not cleared to undertake Exposure Prone Procedures (EPPs) a risk assessment of the role will need to be undertaken. This will identify if the HCW can continue in the role if EPPs are excluded. Managers are then responsible for ensuring that adherence to any restrictions made by OHS is followed.

**Healthcare Workers**
HCWs have a duty to comply with this policy and undertake any appropriate screening deemed necessary for the employment. Any HCW who is involved in EPPs and refuses to follow the policy will not be cleared to undertake EPPs. The manager will be informed that the HCW is not cleared to undertake EPPs and therefore a risk assessment of the role will need to be undertaken.

Failure by HCW to comply with this policy may be regarded as gross misconduct and may lead to Disciplinary Action.

The logic of one-off testing of ‘new HCWs’ has been questioned, given that HCWs will be at ongoing risk of occupational (and potentially non-occupational) exposure. Professional codes of practice from regulatory bodies require HCWs 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 HCWs are under an ongoing obligation to seek professional advice about the need to be tested if they have been exposed to a serious communicable disease, obviating the need for repeat testing. This obligation applies equally to HCWs already in post.
HCWs treating a doctor or other HCW with a serious communicable disease must provide the confidentiality and support to which every patient is entitled.

HCWs who know or have good reason to believe (having taken steps to confirm the facts as far as practicable) that a healthcare worker colleague who has, or may have, a serious communicable disease (such as hepatitis B, hepatitis C or HIV), is practicing, or has practiced, in a way which places patients at risk, they must inform an appropriate person in the HCW’s employing authority, for example a Consultant occupational health physician, the Trust’s medical director, the Director of Public Health or where appropriate the relevant regulatory body. HCWs may wish to seek advice from their regulatory and professional bodies before passing on such information; such cases are likely to arise very rarely. Wherever possible, the healthcare worker should be informed before information is passed to an employer or regulatory body.

5 Definitions

New HCW - New healthcare worker

For the purposes of this policy, a new HCW is defined as an individual who has direct clinical contact with Trust patients, whether as an employee or with the Trust’s agreement (e.g. student placements, visiting fellows) for the first time. Existing HCWs who are moving to a post or training that involves exposure-prone procedures (EPPs) are also considered as ‘new’. Returning HCWs may also be regarded as ‘new’, depending on what activities they have engaged in while away from the health service.

The policy does not apply to HCWs who are already employed in the Trust, with the exception of those moving to a post requiring the performance of EPPs for the first time in their career.

Categories of New healthcare worker

Standard health clearance is recommended for all categories of new healthcare worker employed or starting training (including students) in a clinical care setting, either for the first time or returning to work in the NHS. Additional health clearance is recommended for healthcare workers who will perform EPPs. It is not possible to provide a definitive list of types or specialties of healthcare workers who perform EPPs, because individual working practices may vary between clinical settings and between workers.

Students

Medical students:
The practical skills required of medical students to obtain provisional General Medical Council (GMC) registration or of foundation doctors to obtain full GMC registration do not include EPPs. Freedom from infection with BBVs is therefore not an absolute requirement for those wishing to train as doctors. This recognises that many career paths are available to doctors which do not require the performance of EPPs. However, some commonly undertaken components of the undergraduate medical curriculum may involve students in EPPs. Additional health clearance is therefore recommended for those students who will be involved in EPPs. Students found to be infectious carriers of BBVs will need to comply with occupational health supervision and guidance from the responsible head of course to ensure they do not perform EPPs.

**Nursing students:**
Additional health clearance is not necessary for nursing students, as performance of EPPs is not a requirement of the curriculum for preregistration student nurse training.

**Dental, midwifery, paramedic, ambulance technician and podiatric surgery students:**
Additional health clearance is recommended for all dental (including dental hygienists and therapists), midwifery, paramedic, ambulance technician and podiatric surgery (but not podiatry) students before acceptance onto training courses, because EPPs are performed during training and practice of these specialties.

**Healthcare workers who are performing EPPs for the first time**
Healthcare workers moving into training or posts involving EPPs for the first time should also be treated as ‘new’, and additional health clearance is recommended. This will include, for instance, qualified nurses wishing to train as midwives and post-registration nurses moving into work in operating theatres and accident and emergency for the first time and doctors in training entering surgical or other specialties involving EPPs. This will not apply in future to doctors in training who have already had additional health checks as medical students in the UK.

**Healthcare workers who are returning to the NHS and who may have been exposed to serious communicable diseases**
The need for additional health checks for any particular healthcare worker who is returning to work in the NHS and who may have been exposed to serious communicable diseases while away should be based on a risk assessment. This should be carried out by the Occupational Health Services. The timing of any tests should take account of the natural history of the infections (i.e. the ‘window period’).

Some examples of healthcare workers who might be considered ‘returnees’ include those returning from research experience (including electives spent in countries of high prevalence for blood borne viruses), voluntary service with medical charities,
sabbaticals (including tours of active duty in the armed forces), exchanges, locum and agency work or periods of unemployment spent outside the UK.

Healthcare workers from locum and recruitment agencies, including NHS Professionals

On commencement employment health checks to be carried out for temporary staff should be consistent with the guidance given in HSC 2002/00810 and the Code of Practice for the Supply of Temporary Staffing. Agencies covered by the national contract for the supply of temporary staff to the NHS will be ‘quality assured’ in relation to recruitment standards, including health checks.

Health clearance appropriate to healthcare workers’ duties should be verified before the individual undertakes any clinical work. While working on NHS premises, responsibility for continuing occupational health and safety needs of temporary workers lies with the NHS employer, as covered by the Health and Safety at Work etc Act 1974. Agencies are responsible for supplying staff who are fit to practice and should satisfy themselves that the staff they supply have the necessary clearances.

Healthcare workers in the independent healthcare sector

If the Trust arranges for patients to be treated by non-NHS hospitals or health establishments in the UK, including independent-sector treatment centres, the Trust should ensure that this guidance is followed. Independent Health Care: National Minimum Standards include core standards relating to infection control and the prevention of blood-borne virus transmission in the healthcare setting.

**Exposure Prone Procedures EPP**

Those procedures where an opportunity for HCW-to-patient transmission of BBV does exist are described as exposure prone, where injury to the HCW could result in the worker’s blood contaminating the patient’s open tissues. This is described as “bleed-back” in this guidance. The majority of HCWs do not perform EPPs.

EPPs include procedures where the worker’s gloved hands may be in contact with sharp instruments, needle tips or sharp tissues (e.g. 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. However, other situations, such as pre-hospital trauma care, should be avoided by HCWs restricted from performing EPPs, as they could also result in the exposure of the patient’s open tissues to the blood of the worker, since these workers function in exposure prone environments.
Non Exposure Prone Procedures NON EPP
Non-EPPs are those 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 considered not to be exposure prone provided routine infection control procedures are adhered to at all times.

Examples:

- 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

The decision whether an HIV, hepatitis B or hepatitis C-infected worker should continue to perform a procedure, which itself is not exposure-prone, should take into account the risk of complications arising which necessitate the performance of an EPP; only reasonably predictable complications need to be considered in this context.

Work in renal units is covered by separate guidance which recommends that those working with dialysis patients should be screened for blood borne viruses in the same protocol as those performing EPP.

Identified Validated Sample IVS

An IVS is defined by Association of National Health Occupational Physicians (ANHOPS) and Association of National Health Occupational Health Nurses (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
- 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
6 Health clearance procedures

6.1 Health clearance measures for ‘new HCWs’

- **Standard health clearance recommended for all healthcare workers**

<table>
<thead>
<tr>
<th>Standard health clearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>All new HCW’s need to have ‘standard health clearance’ before they have clinical contact with patients.</td>
</tr>
<tr>
<td>HCW’s should be reminded of their professional responsibilities in relation to serious communicable diseases and should be offered <em>immunisation and blood tests</em> for evidence of non-infectivity:</td>
</tr>
<tr>
<td>hepatitis B immunisation, with post-immunisation testing of response by hepatitis B surface antibody (hepatitis B surface antibody level &gt;10 IU/ml)</td>
</tr>
<tr>
<td>if hepatitis B non-responder offer blood testing for hepatitis B s antigen</td>
</tr>
<tr>
<td>All staff can have blood testing for hepatitis C antibody, hepatitis B s antigen and HIV antibody on request.</td>
</tr>
<tr>
<td>Standard health checks for non-EPP posts may be conducted on appointment.</td>
</tr>
<tr>
<td>Health clearance checks recommended by this policy should be implemented alongside existing health checks for new healthcare workers and other on commencement checks.</td>
</tr>
</tbody>
</table>

- **Additional health clearance for all ‘new HCW’ who will perform EPPs**

The Trust will set up mechanisms in conjunction with the Human Resources and OHS to identify ‘new HCW’, returning HCW and those moving to posts involving EPPs for the first time, to ensure that the necessary health checks are carried out.

For new HCW whose post or training requires performance of EPPs, it is suggested that appointment or admission to training should be conditional on satisfactory completion of standard and additional health clearance checks, ie that they are free from infection with hepatitis B, hepatitis C and HIV, as well as TB.
HCW must be tested for:

- Hepatitis B surface antigen
- Hepatitis C antibody
- HIV antibody

If a HCW is positive for any of the above further testing and follow up must be undertaken and discussion with consultant occupational physician arranged. See 6.2 for further testing requirements of infected HCW in EPP posts.

All HCW should be offered Hepatitis B immunisation in line with Control of Substance Hazardous to Health regulations 2002. (COSHH)

Healthcare workers for whom hepatitis B vaccination is contra-indicated; who decline vaccination or who are non-responders to vaccine should be restricted from performing EPPs unless shown to be non-infectious by blood test for hepatitis B surface antigen.

For those infected HCW in non EPP posts an annual self declaration of no change to circumstances will be sought by OHS in line with current best advice.

For those non infected HCW in EPP posts who are non-responders to hepatitis B immunisation annual testing (Hepatitis B s antigen) to evidence continued non infective status is required.

6.2 The management and follow up of infected HCWs

The management and follow up of infected HCWs who DO NOT perform EPPs

All new HCW must be offered a pre-test discussion and offer testing for hepatitis B s antigen
hepatitis C antibody and, if DETECTED a hepatitis C RNA test
HIV antibody

For those HCW who DO NOT perform EPP, decline a test or a have result indicating

hepatitis B s antigen (HBsAg) detected or
hepatitis C antibody detected and hepatitis C viral RNA detected or HIV antibody detected

there will not be any effect on their employment or training.

For those infected HCW in non EPP posts an annual self declaration of no change to circumstances will be sought by OHS as current best practice.

The management and follow up of HCWs who DO wish to perform EPPs

6.2.1 HCWs must undergo the following screening before they can perform EPPs – see appendix A

All new HCW must have the following tests and comply with monitoring arrangements:

HCW who do wish to perform EPP

- hepatitis B s antigen (HBsAg) Not detected
- Cleared to perform EPP

  Monitoring-
  - Responder to hepatitis B immunisation (hepatitis B surface antibody level >10 IU/ml) - nil further
  - Non responder to hepatitis B immunisation annual blood test for hepatitis B s Antigen (HBsAg)

HCW who is known to have had previous hepatitis B infection which has cleared

- Hepatitis B s antigen not detected
- Hepatitis B s antibody detected
- Hepatitis B c antibody detected
- Cleared to perform EPP Monitoring- nil, immunisation not required

HCW who is infected and chronic carrier

- hepatitis B s antigen (HBsAg) Detected
- hepatitis B e antigen (HBeAg) Detected
- Not cleared to perform EPPs
If they are hepatitis B e antigen (HBeAg) Not detected, they **must** have their hepatitis B viral load (HBV DNA) tested.

HBV DNA testing must be carried out in designated laboratories* – see flow chart appendix A

<table>
<thead>
<tr>
<th>HCW</th>
<th>hepatitis B s antigen (HBsAg) Detected hepatitis B e antigen (HBeAg) Not detected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HBV DNA &gt; greater than (10^5) genome equivalents/ml (20 000 IU/ml)</td>
</tr>
<tr>
<td></td>
<td><strong>Not cleared</strong> to perform EPPs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HCW</th>
<th>hepatitis B s antigen (HBsAg) Detected hepatitis B e antigen (HBeAg) Not detected</th>
<th>HBV DNA at or below (10^3) genome equivalents/ml (&lt;200 IU/ml) either from natural suppression or 12 months following a course of treatment and are <strong>not</strong> on treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Evidenced on two consecutive tests no less than one month apart <strong>Cleared to perform EPP</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monitoring annual measurement of HBV DNA levels (&lt;10^3) genome equivalents/ml (&lt;200 IU/ml)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Registered with the UKAP Occupational Health Monitoring Register (UKAP-OHR)</td>
<td></td>
</tr>
</tbody>
</table>
HCW

hepatitis B s antigen (HBsAg) Detected
hepatitis B e antigen (HBeAg) Not detected

pre treatment  HBV DNA > greater than $10^3$ and less than $< 10^5$ genome equivalents/ml ( >200 < 20,000 IU/ml)

On treatment and HBV DNA suppressed to less than $<10^3$ genome equivalents/ml (<200 IU/ml)
Evidenced on two consecutive tests no less than one month apart

Cleared to perform EPP

Monitoring 3 monthly measurement of HBV DNA levels – see flow chart for monitoring requirements and treatment discussions

Registered with the UKAP Occupational Health Monitoring Register (UKAP-OHR)

* viral load testing can now be undertaken by any Clinical Pathology Accreditation (UK) Limited or United Kingdom Accreditation Service accredited virology laboratory in the United Kingdom, provided a CE marked assay, which is standardised to the WHO International Standard for Hepatitis B Virus Nucleic Acid Amplification Techniques, is used and HBV DNA levels are reported in international units per millilitre (IU/mL). The historical cut-off has been converted to IU / mL by dividing by a factor of 5 to approximate the conversion used in the most commonly used assays. Thus $10^3$ gEq / mL = 200IU / mL, and this replaces the previous cut-off for performing EPPs. Two cut-offs have been used historically for pre-treatment viral load. $10^3$ gEq/ml is equivalent to 200 IU/mL; $10^5$ gEq/ml is equivalent to 20,000 IU/mL. Where pre-treatment viral load was measured before the introduction of this new guidance, viral loads reported as either gEq/mL or IU/mL are acceptable; results should not be converted between units
The table below sets out the expected course of action for HBV DNA level test results below and above the level for EPP clearance.

<table>
<thead>
<tr>
<th>HBV DNA Level</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;60 IU/ml</td>
<td>HCW can perform EPPs. Retest in 3 or 12 months depending on antiviral treatment status</td>
</tr>
<tr>
<td>60 - 200 IU/ml</td>
<td>HCW can perform EPPs. Retest in 10 days depending on antiviral treatment status</td>
</tr>
<tr>
<td>&gt;200 &lt; 400 IU/ml</td>
<td>A second test should automatically be done on the same (if sufficient residual volume) and a further specimen collected no less than one week apart and sent to the designated laboratory to verify the first result. If the designated laboratory confirms that the viral load is above the cut off, the HCW will be unable to perform EPPs until their viral load returns to being stably below 200 IU/ml. A full risk assessment should be triggered and include assessing the significance of the increase in viral load. A Patient Notification Exercise PNE may be required.</td>
</tr>
<tr>
<td>&gt;400 IU/ml or above</td>
<td>The HCW must <strong>cease conducting EPPs immediately.</strong> Further tests on the same (if sufficient residual volume) and a further specimen collected and sent to the designated laboratory to verify the first result. If the count was still in excess of the 300IU/mL, the HCW will remain unable to perform EPPs until their viral load returns to being stably below 300 IU/ml. A full risk assessment should be triggered and include assessing the significance of the increase in viral load. A PNE may be indicated.</td>
</tr>
</tbody>
</table>
6.2.2 Hepatitis C infected HCWs must meet the following criteria before they can perform EPPs

New HCW who will perform EPPs must be tested for hepatitis C antibody - see appendix B

<table>
<thead>
<tr>
<th>HCW</th>
</tr>
</thead>
<tbody>
<tr>
<td>hepatitis C antibody Not detected</td>
</tr>
<tr>
<td>Cleared for EPP</td>
</tr>
<tr>
<td>Monitoring: nil else required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HCW</th>
</tr>
</thead>
<tbody>
<tr>
<td>hepatitis C antibody Detected</td>
</tr>
<tr>
<td>hepatitis C RNA Detected</td>
</tr>
<tr>
<td>Not cleared to perform EPPs</td>
</tr>
<tr>
<td>Treatment required followed by further testing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HCW – previous unrecognised hepatitis C infection, cleared with no treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>hepatitis C antibody Detected</td>
</tr>
<tr>
<td>hepatitis C RNA Not detected</td>
</tr>
<tr>
<td>Evidenced by at least two separate HCV RNA not detected tests 3 months apart.</td>
</tr>
<tr>
<td>Two separate samples with no evidence of active HCV infection (e.g. 2 x RNA &lt;15 IU/ml ) would normally be taken as evidence of past cleared infection in an untreated patient.</td>
</tr>
<tr>
<td>Such patients would have no further monitoring and would not need hepatology referral.</td>
</tr>
<tr>
<td>The 2016 EASL guidelines suggest 3 months between samples (European Association for the Study of the Liver)</td>
</tr>
<tr>
<td>Cleared to perform EPP</td>
</tr>
<tr>
<td>Monitoring: nil else required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HCW</th>
</tr>
</thead>
<tbody>
<tr>
<td>hepatitis C antibody Detected on antiviral treatment or have completed treatment</td>
</tr>
<tr>
<td>hepatitis C RNA Not detected</td>
</tr>
</tbody>
</table>
Evidenced by blood test Hepatitis C RNA not detected at least 6 months after cessation of treatment and a further test at 6 months

**Cleared to perform EPP**

Monitoring: nil else required

### 6.2.3 HIV infected HCWs must meet the following criteria before they can perform EPPs

Either be on effective combination antiretroviral therapy (cART) and have a plasma viral load <200 copies/ml or be an elite controller as defined and be monitored regularly

– see appendix C

**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 three monthly 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.

### Initial health clearance for HIV infected HCWs who wish to perform EPPs

**HCWs new to performing EPPs who are not elite controllers**

HIV viral load levels below 200 copies/ml

Evidenced by two samples (IVS) test results taken no less than three months apart

**Cleared to commence or resume EPP activities**

Monitoring

plasma viral load monitoring every 3 months

joint supervision of a consultant occupational physician and their treating physician
registered with the UKAP Occupational Health Monitoring Register (UKAP-OHR)

HCWs currently restricted from EPPs who are on combination cART with undetectable viral load (below 200 copies/ml)

Evidence one sample (IVS) at least 3 months since their last undetectable viral load

**Cleared to commence or resume EPP activities**

Monitoring plasma viral load monitoring every 3 months

joint supervision of a consultant occupational physician and their treating physician

registered with the UKAP Occupational Health Monitoring Register (UKAP-OHR)

The decision to clear individual HCWs for work involving EPPs is the responsibility of the consultant occupational physician in consultation with the treating physician. UKAP may be consulted on the application of the policy, as needed

The three month 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 course of action for HIV viral load test results for EPP clearance.

<table>
<thead>
<tr>
<th>HIV Viral load count test result</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;50 copies/ml or below</td>
<td>No action – retest in three months</td>
</tr>
<tr>
<td>50 - 200 copies/ml</td>
<td>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.</td>
</tr>
<tr>
<td>&gt;200 copies/ml but &lt;1000 copies/ml</td>
<td>A second test must 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 must cease conducting EPPs until their count, in two consecutive tests no less than three months apart, was reduced to &lt;200</td>
</tr>
<tr>
<td>copies/ml.</td>
<td>The HCW must 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.</td>
</tr>
</tbody>
</table>

6.3 Patient notification exercises

Where it is found that a HCW infected with hepatitis B, hepatitis C or HIV does perform or has performed EPPs then he/she must immediately cease such activities until the situation has been fully assessed, including the nature of the work done by the healthcare worker and the degree of risk (if any) to patients.

The Director of Public Health (DPH) or delegated deputy will be responsible for deciding whether a patient notification exercise should be performed. The DPH may be supported in this decision making by the CCDC, Regional Epidemiologist, Regional Director of Public Health and UKAP as necessary.

In the case of hepatitis B infected healthcare workers working whilst receiving antiviral therapy, the Department of Health recommends that the finding, at a three-monthly test, that the healthcare worker’s HBV DNA level has risen above $10^3$ geq/ml would not, in itself, be an indication to trace, notify and offer hepatitis B testing to patients treated by the healthcare worker. Each incident should be assessed individually. Advice on the need for patient notification is available from the UK Advisory Panel for Healthcare Workers Infected with Blood-borne Viruses (UKAP).

6.4 Failure to attend or refusal to test

All HCWs performing EPPs must be advised by the Consultant occupational physician and their treating physician of the importance of monitoring of their viral load and the implications of not doing so. Where a HCW does not attend for their appointments, or refuses to have their viral load tested, the consultant
occupational physician should inform the HCWs manager that they are no longer cleared to perform EPPs, until it has been established that the HCW is complying with required monitoring arrangements.

**Resuming EPPs**

Resumption of EPP activities following a period of interruption (for whatever reason) requires demonstration of compliance with the evidence required as though a new HCW.

**6.5 Testing of specimens**

Laboratory tests must be carried out in accredited laboratories that are experienced in performing the necessary tests and which participate in appropriate external quality assurance schemes.

Serological testing and qualitative molecular testing for HBV DNA, HCV RNA and HIV RNA is carried out in the molecular laboratory within the Microbiology Department at the Freeman Hospital (extension 21108). During working hours the duty clinical virologist can be contacted via extension 21104.

The regional designated laboratory for HBV Viral DNA testing is the West of Scotland Specialist Virology Centre, Glasgow Royal Infirmary, Glasgow

http://www.nhsggc.org.uk/about-us/professional-support-sites/west-of-scotland-specialist-virology-centre/

This laboratory will be used until it is agreed to change to FH laboratory during 2018.

Qualitative testing for hepatitis C virus RNA must be carried out in accredited laboratories that are experienced in performing such tests and which participate in external quality assurance schemes. The assays used should have a minimum sensitivity of 50 IU/ml. Local lower limits of quantification

HCV 15 IU/ml

Local lower limits of quantification HIV 20 copies/ml

**6.6 Health clearance certificates (fit slips)**

Following on commencement testing, fit slips must be provided by occupational health to NUTH human resources using TRAC to indicate whether an individual is fit for employment, whether or not the employee is cleared for EPPs, and the time-scale for any further testing.
For doctors in training the fit slip is sent to the Lead Employer Trust.

Additional information is sent by letter to the appropriate manager/medical director as applicable, maintaining confidentiality, for those under regular monitoring.

HCW who apply for a post or training which may involve EPPs and who decline to be tested for HIV, hepatitis B and hepatitis C must not be cleared to perform EPPs.

7. Training

Occupational Health staff, including physicians and nurses, receive appropriate in-house cascade training and external training as appropriate to carry out their roles.

8. Equality and diversity

The Trust is committed to ensuring that, as far as is reasonably practicable, the way we provide services to the public and the way we treat our staff reflects their individual needs and does not discriminate against individuals or groups on any grounds. This document has been appropriately assessed.

9. Monitoring compliance

<table>
<thead>
<tr>
<th><strong>Standard / process / issue</strong></th>
<th><strong>Monitoring and audit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Method</strong></td>
<td><strong>By</strong></td>
</tr>
<tr>
<td>Audit and monitoring of the arrangements for health clearance of new NHS healthcare workers working in EPP areas and will take place by Occupational Health (25% sample size)</td>
<td>Retrospective review of (OH database) COHORT notes</td>
</tr>
<tr>
<td>Audit of process for identified BBV positive HCW undertaking EPP/non EPP roles</td>
<td>Retrospective review of COHORT notes</td>
</tr>
</tbody>
</table>
10. Consultation and review

The policy has been circulated to
- H&S,
- IPCC
- Clinical Gov and Risk,
- OH team
- ID team
- Head of Nursing
- CPG
- Virology team

11. Implementation (including raising awareness)

The policy will be placed upon the intranet and listed as NEW; staff will be informed of the policy on induction to the trust. The policy will be circulated to directorate managers/matrons to ensure local implementation.

12. References


Health and Safety Executive (2005) Control of Substances Hazardous to Health (fifth edition). The Control of Substances Hazardous to Health Regulations 2002 (as

Associated documentation

This document should be read in association with the following Trust policies:

Control of Infection in Healthcare Workers

Prevention and control of Tuberculosis in Newcastle Hospitals
Appendix A  Hepatitis B Testing for Healthcare Workers

**NOT ON ANTI-VIRAL TREATMENT** and involved in EPP

- **Test for HBsAg**
  - **HBsAg Detected**
  - **Test for HBe-markers**
    - **HBeAg Detected:**
    - Test for HBV DNA using genomic amplification assay at DoH designated laboratory – (Glasgow and Birmingham)
    - First assessment of HBeAg POSITIVE HCW not on anti-viral treatment FOR EPP: Two samples taken **MORE** than one month apart (IVS blood sent to DoH designated labs in Glasgow until notified otherwise)
    - HBV DNA > $10^3$ copies/ml (>200IU/ml)
    - Annual follow up of HCW **NOT** on treatment (previously assessed for EPP): One test (IVS blood sent to DH designated labs in Glasgow)
    - HBV DNA < $10^3$ copies/ml (<200IU/ml): practice not restricted but subject to annual testing
  - **HBeAg Not detected**
    - HBV DNA < $10^3$ copies/ml (<200IU/ml): EPP not restricted but subject to annual testing

- **HBsAg Not Detected:** no restrictions

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**Please send IVS (ID validated sample) blood in one full 4ml EDTA (purple top) bottle per test. The blood should be accompanied by a completed request form, clearly stating the test requested and indicating that the sample is IVS. The sample should be sent to the microbiology laboratory, Freeman Hospital. One tube should be sufficient for one PCR and storage, and a repeat test if needed.**

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Appendix A (cont)  Hepatitis B testing for healthcare workers

**ON ANTI-VIRAL TREATMENT and Involved in EPP**

- **Test for HBsAg**
  - **HBsAg Detected**
    - **Test for e-markers**
      - **HBeAg detected:**
      - **HBe Antigen Not detected**
      - **Test for HBV DNA using genomic amplification assay at DH designated laboratory**

- **EPP RESTRICTED**
  - **HBV DNA >10^3 copies/ml ( >200 IU/ml)**
  - **HBV DNA <10^3 copies/ml ( < 200 IU/ml):**
    - EPP not restricted but **subject to regular check at three-monthly interval – single**

_**New HCW currently on appropriate anti-viral treatment and previously assessed for EPP:**_
_**Check every three months and one sample sent to DH designated labs** (the period should be taken from the date the previous blood sample was drawn and not from the date the result was received)_

*Please send IVS (ID validated sample) blood in one full 4ml EDTA (purple top) bottle per test. The blood should be accompanied by a completed request form, clearly stating the test requested and indicating that the sample is IVS. The sample should be sent to the microbiology laboratory, Freeman Hospital*. One tube should be sufficient for one PCR and storage, and a repeat test if needed.*
Hepatitis C Testing for Healthcare Workers and involved in EPP

Test for hepatitis C antibody (HCV ab)

- Hepatitis C antibody Detected
  - Test for hepatitis C RNA
    - Hepatitis C RNA Detected
      - EPP RESTRICTED
    - Hepatitis C RNA Not detected

- Hepatitis C antibody Not detected
  - EPP CLEARED no restrictions
    - No further monitoring
  - First assessment of HCV RNA Detected HCW after anti-viral treatment
    - FOR EPP:
      - Must have hepatitis C RNA Not Detected after 6 months of treatment and 6 months after cessation of treatment (IVS blood sent to local labs)
Appendix C

HIV Testing for Healthcare Workers involved in EPP

Elite controller status confirmed- not on treatment

No

Yes: no restrictions Subject to 3 monthly viral load monitoring <200 copies/ml

First assessment of HIV POSITIVE HCW FOR EPP MUST be on effective cART and have a plasma viral load <200 copies/ml
Two samples taken MORE than three months apart (IVS blood sent to local labs)

First assessment of HIV POSITIVE HCW FOR EPP Currently restricted and on cART treatment MUST One sample taken MORE than three months since last undetectable sample (IVS blood sent to local labs)

HIV plasma viral load >200 copies/ml

HIV plasma viral load <200 copies/ml

EPP not restricted subject to 3 monthly viral load testing

Three monthly follow up of HCW on treatment (previously assessed for EPP):
One test (IVS blood sent local laboratory)

HIV plasma viral load >200 copies/ml

HIV plasma viral load <200 copies/ml

EPP not restricted subject to 3 monthly viral load testing

Please send IVS (ID validated sample) blood in one full 4ml EDTA (purple top) bottle per test. The blood should be accompanied by a completed request form, clearly stating the test requested and indicating that the sample is IVS. The sample should be sent to the microbiology laboratory, Freeman Hospital’. One tube should be sufficient for one PCR and storage, and a repeat test if needed.
The Newcastle upon Tyne Hospitals NHS Foundation Trust
Equality Analysis  Form A

This form must be completed and attached to any procedural document when submitted to the appropriate committee for consideration and approval.

**PART 1**

1. **Assessment Date:** 30/01/18

2. **Name of policy / guidance/ strategy / service development / Investment plan/Board Paper:**
   - Policy for the health clearance of healthcare workers and the management of healthcare workers infected with blood borne viruses (hepatitis B, hepatitis C and HIV)

3. **Name and designation of author:**
   - Elizabeth Murphy Consultant Occupational Health, Laura Mckenna Senior Nurse Occupational Health

4. **Names & Designations of those involved in the impact analysis screening process:**
   - Lucy Hall, Equality and Diversity Lead

5. **Is this a:**
   - Policy ☑
   - Strategy ☐
   - Service ☐
   - Board Paper ☐

   **Is this:**
   - New ☐
   - Revised ☑

   **Who is affected:**
   - Employees ☑
   - Service Users ☐
   - Wider Community ☐

6. **What are the main aims, objectives of the document you are reviewing and what are the intended outcomes? (These can be cut and pasted from your policy)**

   The primary purpose of this policy is to provide protection for patients from exposure in the clinical care setting to viral infection with Hepatitis B, Hepatitis C and HIV. The measures are intended not to prevent those healthcare workers (HCWs) infected with blood-borne viruses (BBVs) from working in the Trust, but rather outline screening and monitoring arrangements when working in those clinical areas where their infection may pose a risk to patients in their care.
6. **Does this policy, strategy, or service have any equality implications?**

Yes □#  No □

If No, state reasons and the information used to make this decision, please refer to paragraph 2.3 of the Equality Analysis Guidance before providing reasons:

Supplementary information: this policy is based directly on the Department of health and Public Health England guidance in relation to screening of relevant occupational groups for blood borne viruses in order to protect patients and enable infected health care workers to work in a managed setting. The approach adopted in relation to inclusion in the screening is based on employment task and no protected characteristic.

7. **Summary of evidence related to protected characteristics**

<table>
<thead>
<tr>
<th>Protected Characteristic</th>
<th>Evidence</th>
<th>Does evidence/engagement highlight areas of direct or indirect discrimination?</th>
<th>Are there any opportunities to advance equality of opportunity or foster good relations?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race / Ethnic origin (including gypsies and travellers)</td>
<td>The policy is designed to look at staff carrying out specific roles such as surgery dentistry and emergency procedures rather than the ethnic origin of a staff member. Measures are in place to consider the status of blood results and treatment the person is taking when making decisions about involvement in EPP.</td>
<td>There are higher rates of blood borne conditions in some countries – these do not impact on staff from these countries in this policy</td>
<td>No</td>
</tr>
<tr>
<td>Sex (male/ female)</td>
<td>None relevant to this policy</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Religion and Belief</td>
<td>Mandatory EDHR training. Advice given to staff should reflect any concerns around religion/belief while following procedure.</td>
<td>There may be religious considerations in relation to prevention of spread of blood borne diseases. These are taken into consideration in the individual advice given to staff.</td>
<td>no</td>
</tr>
<tr>
<td><strong>Sexual orientation including lesbian, gay and bisexual people</strong></td>
<td>The policy is designed to look at staff carrying out specific roles such as surgery dentistry and emergency procedures and not the sexual orientation of the member of staff. Measures are in place to consider the status of blood results and treatment the person is taking when making decisions about involvement in EPP. Mandatory EDHR training. Advice given to staff should reflect any concerns around sexual orientation while following procedure.</td>
<td>There are higher rates of some blood borne conditions amongst LGB people – this does not impact on LGB staff in this policy</td>
<td>no</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>None relevant to this policy.</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td><strong>Disability – learning difficulties, physical disability, sensory impairment and mental health. Consider the needs of carers in this section</strong></td>
<td>Mandatory EDHR training. Advice given to staff should take into account the implications for pre-existing health conditions.</td>
<td>No. Reviewed in annual audit.</td>
<td>no</td>
</tr>
<tr>
<td><strong>Gender Re-assignment</strong></td>
<td>None relevant to this policy.</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td><strong>Marriage and Civil Partnership</strong></td>
<td>None relevant to this policy.</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td><strong>Maternity / Pregnancy</strong></td>
<td>Pregnant staff have a risk assessment as part of their maternity discussion with their manager with any relevant concerns discussed confidentially within OH and advice given to staff member and Manager</td>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>
9. Are there any gaps in the evidence outlined above. If ‘yes’ how will these be rectified?

no

10. Engagement has taken place with people who have protected characteristics and will continue through the Equality Delivery System and the Equality Diversity and Human Rights Group. Please note you may require further engagement in respect of any significant changes to policies, new developments and or changes to service delivery. In such circumstances please contact the Equality and Diversity Lead or the Involvement and Equalities Officer.

Do you require further engagement  No

11. Could the policy, strategy or service have a negative impact on human rights? (E.g. the right to respect for private and family life, the right to a fair hearing and the right to education?)

No

PART 2

Signature of Author
L Mckenna

Print name
Laura Mckenna

Date of completion
06/03/2018

(If any reader of this procedural document identifies a potential discriminatory impact that has not been identified, please refer to the Policy Author identified above, together with any suggestions for action required to avoid/reduce the impact.)