HEPATITIS B GUIDANCE FOR THE PROTECTION OF
HEALTH CARE WORKERS AND PATIENTS

For use in: All clinical areas of the Trust
For use by: All Trust staff
For use for: Prevent spread of Hepatitis B virus
Document owner: Occupational Health Manager
Status: Approved

Purpose of this document

This policy and procedure has been developed for all health care workers who have direct patient contact and are at risk of exposure to the Hepatitis B virus and for those who could, if currently infected with Hepatitis B, pose a risk to their patients.

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Definitions:

**EPP:** Exposure Prone Procedures are those 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. These procedures include those where the worker’s gloved hands may be in contact with sharp instruments, needle tips and sharp tissues (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. (See Appendix I)

1. **Introduction**

   1.1 Hepatitis B is a viral infection, which affects the liver and can cause both acute and chronic disease.
1.2 Infection with the Hepatitis B virus may cause few or no visible symptoms although can still be infectious. These asymptomatic, unknown cases and long-term carriers can spread the disease.

1.3 The Hepatitis B virus is transmitted through contact with the blood or other body fluids of an infected person, for example: - cerebrospinal fluid, pleural fluid, breast milk, amniotic fluid, peritoneal fluid, pericardial fluid, synovial fluid and other bodily fluids containing blood.

1.4 Exposure to Hepatitis B is a recognised hazard among health care workers.

1.5 Members of staff who are Hepatitis B carriers and carry out Exposure Prone Procedures are a risk to patients (see Appendix 1, the list is not comprehensive and a risk assessment would still be required).

1.6 All members of staff must continue to maintain a high standard of practice when in contact with patient’s body fluids or their blood, using “safety sharps” wherever possible and when disposing of “sharps” (needles etc.). Vaccination of staff is not a substitute for these high standards, but additional protection.

2. **Occupational Transmission of Hepatitis B**

This can occur in the following situations:

2.1 Inoculation with contaminated material, particularly blood (sharps injury). Risk of transmission of Hepatitis B from patient to health care worker is up to 30%.

2.2 Splashes of blood or other contaminated body fluid onto the broken skin, or onto mucous membrane such as the mouth or eye. Transmission after single muco-cutaneous exposure is less than 0.1%

2.3 Human bites.

3. **Patients at Risk**

3.1 It is recognised that health care workers including qualified medical, dental, nursing, midwifery practitioners and respective students who carry out as part of their duties Exposure Prone Procedures, are at risk of transmitting Hepatitis B to their patients.

3.2 All health care workers whose posts require the performance of Exposure Prone Procedures must produce satisfactory UK documentation of their Hepatitis B status. In the absence of such documentation, any offer of employment, which would involve the practice of Exposure Prone Procedures, will be withheld until the applicant has tested negative with respect to Hepatitis B surface antigen.

3.3 This is a condition of service for all West Suffolk NHS Foundation Trust (WSFT) staff involved in Exposure Prone Procedures.

3.4 Any health care worker who practices Exposure Prone Procedures and is identified as being Hepatitis B surface-antigen positive, shall **cease** such
carrying out these procedures immediately and refer themselves to the Occupational Health & Wellbeing Service for appropriate advice and referral for further investigations and treatment.

3.5 It is the responsibility of Heads of Departments/Managers to identify posts which involve Exposure Prone Procedures and to ensure that existing and new staff appointed are aware of this policy and comply with its content.

4. Protection of Patients

4.1 The Occupational Health & Wellbeing Service is responsible for offering Hepatitis B vaccination, and post vaccination testing to all new health care workers who are identified at risk.

4.2 It is the responsibility of all new health care workers, who will perform exposure prone procedures, to provide evidence that they are not infected with Hepatitis B by providing a negative Hepatitis B surface antigen result.

4.3 It is the responsibility of the Occupational Health & Wellbeing Service to maintain a record of vaccination dates and subsequent blood test results. Only results from a UK accredited Pathology Department complying with HSG(93)40 and addendum, or certified validated record from an accredited Occupational Health Service in the UK, which will form the basis for Occupational Health advice to Managers on fitness for the post.

5. Clinical Placements

5.1 The Trust will require colleges to provide each student with an up-to-date immunisation record, which must be presented to the Occupational Health & Wellbeing Service on arrival at the WSFT.

5.2 Heads of Departments/Managers will ensure that all students carrying out clinical work are aware of the guidance and do not participate in Exposure Prone Procedures until they have been cleared by the Occupational Health & Wellbeing Service.

6. Locums, Agency Staff and Visiting Academic Staff

6.1 It is the responsibility of the HR Department to ensure that locum or agency staff whose work will involve Exposure Prone Procedures have adequate documentation demonstrating satisfactory compliance with this policy.

6.2 Appropriate steps must be taken to ensure that Academic visitors who may be involved in Exposure Prone Procedures comply with this policy.

7. Staff at Risk

7.1 It is the responsibility of the Heads of Departments/Managers to protect their employees by ensuring that all roles are risk assessed for the transmission of blood borne viruses in order that employees who have patient contact or are
involved in patient/clinical services are provided with the appropriate advice. This includes those who have the potential to be exposed to blood, body fluids and sharps and those at risk of being bitten or scratched.

8. **Protection of Staff and Patients**

8.1 Heads of department will be responsible for ensuring that all members of staff who may have direct contact with blood, blood-stained body fluids or patients' tissues, attend the Occupational Health & Wellbeing Service for assessment of their Hepatitis B immune status. Hepatitis B vaccination will be offered to all staff identified at risk.

8.2 It is the responsibility of the Occupational Health & Wellbeing Service staff to maintain a record of the vaccination and subsequent blood tests results.

8.3 It is the responsibility of Public Health England, Pathology Department at the WSH Foundation Trust to take an identified valid sample of blood for Hepatitis B assay.

8.4 Members of staff who have no patient contact do not need to be vaccinated against Hepatitis B.

NB Any member of staff who considers himself/herself at risk should consult their manager who will advise on the risks and needs of the employee and where a risk is identified, a course of Hepatitis B vaccinations will be offered by the Occupational Health & Wellbeing Service.

9. **Non/Poor Responder**

9.1 Following discussion those members of staff who do not develop an acceptable antibody level after primary vaccination and booster injection will be required to be tested for Hepatitis B surface antigen, core antibody and possibly ‘e’ marker status.

9.2 Those staff that are true vaccine non-responders remain susceptible to infection. They may continue to perform Exposure Prone Procedures but should receive advice from the Occupational Health & Wellbeing Service on ways of minimising the risk of infection at work and the need to report any exposure to blood and/or sharps incidence immediately.

9.3 Annual testing for Hepatitis B surface antigen will be carried out on non-responders undertaking Exposure Prone Procedures by the Occupational Health & Wellbeing Service to ensure continued safety.

9.4 Contraindications to vaccines are few. Staff in whom there are genuine contraindications to vaccine or in whom completion of the course is deemed inadvisable because of a severe reaction to vaccine are in a similar position to non-responders (9.1, 9.2 and 9.3 above).

9.5 Staff will be restricted from undertaking Exposure Prone Procedures if they do not comply with this policy.
10. **Hepatitis B Infected Health Care Worker**

10.1  Any infected health care worker who is e-antigen negative (surface antigen positive) and performs exposure prone procedures will be referred to a Consultant Occupational Health Physician or Hepatology Specialist who will carry out tests for viral load (Hepatitis B virus DNA) in conjunction with the Consultant Microbiologist.

10.2  Any infected health care worker who is e-antigen negative and who has a viral load in excess of $10^3$ genome equivalents per ml, will be restricted from performing exposure prone procedures.

10.3  Any Hepatitis B infected health care worker shall **not** perform exposure prone procedures whilst receiving interferon or oral antiviral therapy, but return to exposure prone procedures can be considered for those whose viral load does not exceed $10^3$ genome equivalents per ml for one year following cessation of treatment.

10.4  Any infected health care worker with a viral load which does not exceed $10^3$ genome equivalents per ml will **not** need to have their working practice restricted, but must attend the Occupational Health & Wellbeing Service for regular monitoring and advice from the Occupational Health Consultant.

10.5  Any infected health care worker whose viral load does not exceed $10^3$ genome equivalents per ml and continues to carry out exposure prone procedures shall have their viral load checked annually.

11. **Retraining/Redeployment**

11.1  It is important that staff whose work may be restricted if they are found to have Hepatitis B, have confidence that fair arrangements are in place for retraining or redeployment. It is the responsibility of senior managers to consider alternative employment opportunities. Advice from local senior professionals should be sought in such cases, e.g. HR and Occupational Health & Wellbeing Service.

11.2  If a member of staff is unable to remain in their current post, options for redeployment should be examined. In the first instance, temporary redeployment should be considered as it may be possible to return to normal duties after effective treatment. If permanent redeployment becomes necessary, this may involve a move to a post which does not involve Exposure Prone Procedures. The Trust will do all they can to assist staff who need to be redeployed.

11.3  Where alternative employment is not readily available, the Trust will take reasonable steps to look further a field. In the case of medical and dental staff, the relevant Postgraduate Deans will be contacted for advice about those in training grades.
11.4 Hepatitis B is a Prescribed Industrial Disease for Health Care Workers. The terms of compensation available under the NHS Injuries Benefits Scheme are outlined in Appendix II of their guidance.

12. **Expert Advisory Help**

The UK Advisory Panel for health care workers with blood borne viruses can be contacted at the Department of Health, Health Promotion (Medical) Division 1, Room 732, Wellington House, 133 - 155 Waterloo Road, London, SE1 8UG, telephone 071 972 4378. All information regarding individual referrals will remain confidential and names need not be disclosed.

13. **Monitoring and Review**

The Occupational Health & Wellbeing Service will monitor the number of members of staff attending for Hepatitis B vaccination by carrying out an audit of immunisations and subsequent blood tests to ensure 100% compliance for health care workers identified as carrying out EPP’s.

These guidelines will be monitored and reviewed by the Health and Safety Committee, Occupational Health & Wellbeing Service, and Consultant Microbiologist/Infection Prevention Consultant.

14. **Development of the Policy**

14.1 **Other Relevant Documents**

- Health, Safety & Welfare Policy PP018
- Hepatitis C Guidance for Infected Health Care Workers Policy PP124
- HIV/AIDS Protection for Health Care Workers and Patients Policy PP051
- The Control and Management of Sharps Injury and Accidental Exposure to Body Fluids: Guidance and management of Risk of Exposure to Hepatitis B, Hepatitis C and HIV, Policy PP083
- Clinical Guideline CG 10223-2 (Pink Book – Intranet)

14.2 **Changes Compared to Previous Documents**

This document replaces PP(15)027 Protecting Health Care Workers and Patients from Hepatitis B.

The revised document includes general updates to reflect correct practice changes.

14.3 **Contributors and Peer Review**

This document was submitted to the Risk Management Executive Committee for consideration following acceptance by the Health & Safety Committee, for subsequent approval and endorsement.
14.4 **Distribution and Implementation**

This document will be widely circulated within the Trust, including all Heads of Department and Ward Managers and will be made available on the Trust’s Intranet and Internet sites. Relevant changes will be brought to the attention of staff during circulation.

Comprehensive training programmes exist including induction and mandatory training and relevant modules as detailed in the Trust’s training prospectus. Specialist training will also be targeted at those with responsibility for managing the high risk.

15. **References**

Integrated guidance on health clearance of healthcare workers infected with bloodborne viruses (hepatitis B, hepatitis C and HIV), October 2017
Dept of Health. HSG(93)40
Dept of Health Addendum EL(96)77
HSE. Advisory Committee on Dangerous Pathogens. Protection against bloodborne infections in the workplace: HIV and Hepatitis August 2009

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<th>Author(s):</th>
<th>Occupational Health Manager</th>
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<tr>
<td>Other contributors:</td>
<td>Consultant Microbiologist,</td>
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<td>Occupational Health</td>
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<td>Consultant</td>
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**Further Information on Hepatitis B Virus**

**For Further Information on Hepatitis B Prevalence and Epidemiology, Please Visit:**
Health Protection Agency Hepatitis B Webpages:-
Name/Page/1191942171112 ?P= 1191942171112 Centres For Disease Central National
Center For Hiv/AIDS Viral Hepatitis, Std And Tb Prevention Viral Hepatitis B Web
Exposure Prone Procedures (EPP)

Exposure prone procedures are those invasive procedures where there is a risk that injury to the worker may result in the exposure of the patient’s open tissues to the blood of the worker.

The following is a list of departments/functions identified as carrying out Exposure Prone Procedures and therefore a risk to patients could exist:

**Medical Staff (Surgeons) to include:-**

- General Surgery
- Orthopaedics
- Obstetrics and Gynaecology
- Ophthalmology
- ENT
- Accident and Emergency

**Nursing Staff to include:-**

- Midwives
- Operating Theatre Staff (including Day Surgery Unit and ODP’s)
- Accident and Emergency
- Ward F3, F4, F5, F6 and F12
  - All of who may be required to assist in Accident and Emergency Department (not bank staff)

**Others**

- Dentists
- Students (Medical, Nursing and Midwifery)
  - All those working in the above areas

* The above lists are not comprehensive

The manager is responsible for identifying staff within his/her department who carry out Exposure Prone Procedures as well as contacting the Occupational Health Service with a list of names if required. The Occupational Health Service will initiate appropriate action on commencement of employment.

Procedures where the hands and fingertips of the worker are visible and outside the patient’s body at all times, and internal examinations or procedures that do not involve possible injury to the worker’s gloved hands from sharp instruments and/or tissue, are considered **NOT** to be exposure prone, provided routine infection control procedures are adhered to at all times.
Procedure for the Management of Needlestick/Sharps Injury and Splashes with Blood or Body Fluids

1. Members of staff and contractors who sustain a splash of blood or body fluid, or where a needle prick or sharps injury is sustained shall IMMEDIATELY wash out eye thoroughly or, bleed the wound, wash the area with soap and water or with antiseptic if available and cover.

2. Members of staff shall inform their supervisor.

3. Where the Needle or Sharp has been used on a Patient, seek Professional Advice:-
   a) The member of staff must seek advice immediately and attend the Occupational Health & Wellbeing Centre.

   Members of staff and contractors should attend the Occupational Health & Wellbeing Centre at West Suffolk Hospital if the incident occurs between Monday to Friday, 8.30 am to 4.30 pm.

   if the Occupational Health & Wellbeing Service is closed, attend the Accident and Emergency Department where:-

   b) An incident form must be completed on Datix with details of the source of the sharp.

   In certain circumstances the incident may need to be reported to the Health & Safety Executive under the RIDDOR Regulations 1995, if in doubt ring the Risk Office

   c) It is the responsibility of the injured member of staff and the Manager to ensure that the above procedure is carried out.

   d) If the source is known, they should be approached by a senior member of staff (other than the recipient of the injury) and asked if they would consent to a blood test for Hepatitis B, Hepatitis C and HIV. As part of the discussion, they should be asked whether they see themselves at risk, and if so GU Medicine should be asked to provide further advice. Testing MUST only be carried out with informed consent of the source patient.

   e) The Occupational Health & Wellbeing Centre should be notified by the manager or employee/contractor no later than the next day.

4. Procedure following Needlestick/Sharps Injury or Splash
   (To be carried out by the Occupational Health Professional Staff or ED Professional Staff using CG 10223-2)
   a) Identify source of injury, i.e. equipment, patient
b) Assess risk to member of staff
   - Consider sources’ medical condition and history
   - Area of incident if source patient not identifiable
   - High risk area
   - Amount of blood/fluid involved in incident
   - Potential level of infectivity of blood/fluid

c) Request a clotted blood sample (red top bottle) from the member of staff for storage only (legal requirement). **Only request blood from source with full informed consent (see 3e above)**

d) Ensure incident form is completed on Datix

e) Establish the Hepatitis B immune status of the member of staff:-
   - If never vaccinated (or uncertain), commence course of Hepatitis B vaccination and advise member of staff to attend the Occupational Health Department for follow up appointment.
   - If immune establish date of completion of course.
   - If 3 years or more has elapsed since completion of vaccination course and/or subsequent booster, give Hepatitis B Booster.

f) If member of staff is known non-responder to Hepatitis B vaccine, consider Hepatitis B Immunoglobulin.

5. **If source Patient is known to be Hepatitis B Carrier**

   a) If source patient is a known Hepatitis B carrier consider giving specific Immunoglobulin within 48 hours, obtained through the Microbiology Department.

   b) The member of staff must attend the Occupational Health & Wellbeing Centre on the same or the next working day for follow-up if seen in the Emergency Department.

   **NB** Also see:

   The Control and Management of Sharps Injury and Accidental Exposure to Body Fluids: Guidance and management of Risk of Exposure to Hepatitis B, Hepatitis C and HIV, Policy PP083

   Clinical Guideline: CG10223-2