Prevention and Management of Needlestick/Sharps Injuries and Exposure to Body Fluids
Policy – HH(1)/IC/589/13

The purpose of this document is to outline the management of sharps and contamination injuries by focusing on blood borne viruses (HIV, Hepatitis B and C) and their risk of transmission. The detailed management process relating to prevention of transmission of these viruses is included. It is based on the most recent national evidence based guidelines and combines previous policies of WEHCT and BNHFT.

This policy is focused on protection of health care workers (HCWs) from infection by blood borne viruses (BBVs) via sharps or contamination injuries.

Ownership
Author: Dr Jane Spenceley / Dr Matthew Dryden
Job Title: Occupational Health Consultant/ Director of Infection Prevention & Control

Document Type
Level: Level 1

Related Documents
Document Details:
- Health Clearance Policy - HH.HR 558 12
- Learning & Development Policy - HH.1.HR 556 12
- Managing Health & Attendance Policy - HH HR 541 12
- Risk Assessment and Management of Health and Safety Policy - HH(1)/HS/614/13
- Reporting, Managing and Learning from Incidents Policy (Including the investigation of Serious Incidents Requiring Investigation and Being Open) - HH(1)/CO/596/12

Relevant Standards
CQC Outcome: Outcome 14
NHSLA Standard: Standard 4.7

Equality Impact Assessment
Completed by: Equality and Diversity Lead
Date Completed: 10 October 2012

Final Document Approval
Committee: Policy Approval Group
Date Approved: 29 October 2012

Other Specialist committee(s) recommending approval
Committee(s): N/A
Date Recommended: N/A

Final Document Ratification
Committee: Executive Committee
Date Ratified: 24 January 2013

Authorisation
Authoriser: Mary Edwards
Job Title: Chief Executive Officer
Signature: 

Date Authorised: 1 February 2013

Dissemination
Target Audience: All Trust Staff and General Public
## Dissemination and Implementation Plan

<table>
<thead>
<tr>
<th>Action</th>
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<tr>
<td>Publicise detail of new document via Intranet and Midweek news</td>
<td>Communication Team</td>
<td>Within 1 week of publication</td>
</tr>
<tr>
<td>Document to be uploaded to Trust intranet</td>
<td>Healthcare Library BNHH</td>
<td>Within 1 week of authorisation</td>
</tr>
<tr>
<td>Communication sent to all senior managers to advise publication of policy</td>
<td>Healthcare Library BNHH</td>
<td>On publication</td>
</tr>
<tr>
<td>Document to be discussed at Infection, prevention and control committee and promulgated via divisional management</td>
<td>Director of Infection Prevention and Control</td>
<td>Within 1 months of publication</td>
</tr>
<tr>
<td>Ensure staff are aware of the contents of and adhere to the guidance provided in this policy</td>
<td>All ward managers</td>
<td>Within 1 months of publication</td>
</tr>
<tr>
<td>Provide education/ advice with regard to this policy - Staff will be provided with needlestick incident/body fluid exposure information cards</td>
<td>Lead Infection Prevention and Control Nurse and Lead health4Wdork nurse</td>
<td>On-going</td>
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### Review

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<tr>
<td>October 2015</td>
<td>July 2015</td>
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## Document Control – Document Amendments

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<tr>
<th>Version No.</th>
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<th>Key amendments to note</th>
<th>By whom</th>
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<tr>
<td>1.</td>
<td>Review of BNHFT &amp; WEHCT policies to produce harmonised HHFT policy</td>
<td></td>
<td>Director of Infection Prevention and Control and Occupational Health Consultant</td>
<td>October 2012</td>
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1. **Introduction**

NHS Trusts have a legal requirement to prevent and control healthcare associated infection (HCAI) under the Health and Social Care Act 2008 and Core Standards for Better Health. As a legal requirement of registration with the Care Quality Commission, NHS Trusts need to protect patients, healthcare workers (HCWs) and others who may be at risk of acquiring an HCAI by demonstrating full compliance.

Studies show that training, safer working practices and the use of medical devices incorporating sharps protection mechanisms can prevent more than 80% of needlestick and sharps injuries. The assessment and management of the risks associated with the use of sharps in health care settings play a key role in establishing which safe systems and control measures should be in place to minimise any identified risks. Needlesafe devices are to be introduced into all areas of the Trust under the E.U. Council Directive 2010/32/EU on preventing sharps injuries in the hospital and healthcare sector by 11th May 2013. There are still too many incidents of occupational exposures occurring in the healthcare setting mainly in the ward, theatre, intensive care unit and emergency department (ED). The majority of incidents reported to the national surveillance centre were sustained whilst recapping needles or clearing clinical waste1. Exposures in theatres tend to affect doctors disproportionately and usually occur during procedures. Protocols within theatres should include targeted interventions that allow for the complexity of such situations with effective control measures.

Inoculation Incidents will be referred to as needlestick / sharps injuries incidents throughout this policy. Needlestick or sharps injuries occur when a needle or other sharp instrument accidentally penetrates the skin. This is called a percutaneous injury. If the needle or sharp instrument is contaminated with blood or other body fluid, there is the potential for transmission of infection, and when this occurs in a work context, the term occupational exposure (to blood, body fluid or blood-borne infection) is used.

When blood or other body fluid splashes into the eyes, nose or mouth or onto broken skin, the exposure is said to be mucocutaneous. The risk of transmission of infection is lower for mucocutaneous exposure than for percutaneous exposures but still significant. Appendix C provides further information on exposure types and risk of transmission. Other potential routes of exposure to blood or other body fluids include bites and scratches 2.

Risk assessment of the incident, consent for testing of the donor and appropriate management of the HCW are essential to protecting HCWs from human immunodeficiency virus (HIV), hepatitis B (HBV) and hepatitis C (HCV) once an occupational injury has occurred (appendix B).

This policy applies to all employees in the event of a contamination/sharps injury exposing them to a risk of infection with HBV, HCV or HIV. It can also be used by ED to advise when a member of the public reports a needlestick / sharps injury or contamination with body fluids.
Any HCW experiencing an occupational exposure to blood / body fluids needs to be assessed promptly for the potential risk of infection. This should be done by a specialist practitioner in the health4WDork department (H4WDD) or emergency department (ED). Individuals should be offered testing, immunisation and post exposure prophylaxis (PEP) if appropriate. All staff should be aware of local arrangements for advice/ management of occupational exposure to blood borne viruses (BBVs) by induction training and annual refresher training.

2. **Purpose**

This policy details the procedure to be followed within Hampshire Hospitals NHS Foundation Trust (HHFT) (Basingstoke and North Hampshire Hospital (BNHH), Andover War Memorial Hospital (AWMH) and Royal Hampshire County Hospital (RHCH)) in the event of a needlestick / sharps injury or exposure to body fluids to employees of HHFT and members of the public.

3. **Scope**

This policy extends to cover and will be applied fairly and consistently to all HHFT employees regardless of their protected characteristics as defined by the Equality Act 2010 namely age, disability, gender reassignment, race, religion or belief, sex, sexual orientation, marriage or civil partnership, pregnancy and maternity, length of service, whether full or part-time or employed under a permanent or a fixed-term contract, irrespective of job role or seniority within the organisation.

Where an employee has difficulty in communicating, whether verbally or in writing, arrangements will be put in place as necessary to ensure that the processes to be followed are understood and that the employee is not disadvantaged during the application of this policy and related procedures.

In line with the Equality Act 2010, the Trust will make reasonable adjustments to the processes to be followed where not doing so would disadvantage an employee with a disability during the application of this policy.

This policy provides advice to staff within H4WDD, ED and the Infection Prevention and Control Team (IPCT) regarding prevention of needlestick / sharps injuries and management of an employee or member of the public following a needlestick/sharps injury or exposure to body fluids.

4. **Explanation of Terms**

**Inoculation incidents** - Throughout this Policy these will be referred to as needlestick / sharps Injuries

**Needlestick / sharps injury** - An incident when a needle or other sharp instrument accidentally penetrates the skin

**Blood borne virus (BBV)** - describes viruses mainly found in blood or body fluids and the main blood borne viruses of concern in this policy are HBV, HCV and HIV
**Donor** - describes the individual whom the blood or body fluid has originated from

**Recipient** - describes the individual who suffers the needlestick / sharps injury or mucocutaneous exposure with blood or body fluid

**Healthcare Associated Infection** - an infection acquired as a result of healthcare intervention.

**Post Exposure Prophylaxis (PEP)** - describes prophylactic treatment started immediately after exposure to a pathogen (in this case, BBV) in order to prevent infection by the BBV and the development of disease

5. **Duties**

5.1 **Post-holders with Duties**

**Chief Executive Officer (CEO)** – The CEO ensures that:

- HHFT complies with all legislation, professional standards & best practice relating to prevention and management of needlestick / sharps injuries and exposure to body fluids

- Arrangements are in place to minimise the risk of needlestick / sharps injuries and exposure to body fluids

- Provision of specialist support to staff / members of public in event of needlestick / sharps injuries and exposure to body fluids

**Director of Infection Prevention and Control (DIPC)** – The DIPC is responsible for ensuring that HHFT has strategies to prevent avoidable HCAIs. The DIPC has corporate responsibility for infection, prevention & control throughout the Trust as delegated by the Chief Executive Officer. They also monitor trends relating to needlestick / sharps injuries and body fluid exposures within HHFT.

**Chief Nursing Officer (CNO)** – The CNO ensures that the Divisional Directors take clinical ownership of the policy.

**Divisional Directors** - Divisional Directors ensure that all healthcare workers comply with this policy and that all healthcare workers attend induction and subsequent follow up training.

They must also ensure that there are adequate facilities and resources available to adhere to this policy.

**Line Managers** - Line Managers are responsible for:

- Completing risk assessments relating to risk of needlestick / sharps injuries and exposure to body fluids

- Ensuring all members of staff are aware of Prevention & Management of Needlestick / Sharps Injuries and Exposure to Body Fluids Policy
• Ensuring immediate first aid is provided to employee who has sustained a needlestick / sharps injury / exposure to body fluids.

• Arranging completion of donor risk assessment in the event of a needlestick / sharps injury / exposure to body fluids and request donor consent to obtain a blood sample for testing for BBVs - Further information is available in appendices E & F

• Ensuring recipient contacts H4WDD (in hours) or attends ED (out of hours) with a copy of the donor risk assessment with minimal delay

• Undertaking an investigation into the causatory factors and take remedial action as necessary

• Ensuring the incident is reported on DATIX

**Employee (Recipient)**
All healthcare workers must be aware of their responsibility in preventing needle stick/sharps injuries.

In the event of a needlestick / sharps injury or exposure to body fluids the employee must:

• Undertake immediate first aid and report the incident to their line manager.

• Immediately telephone H4WDD (in hours) or attend ED (out of hours) with completed donor risk assessment if available

• Report the incident on DATIX if not already performed by line manager

• After attendance at ED inform H4WDD of incident on next working day to ensure appropriate follow up can be arranged

**Health4WDork (H4WD) – H4WD will:**

• provide advice about universal precautions, preventing needlestick/exposure incidents and action to be taken if employee experiences such an incident

• perform immediate first aid if not already performed and assess the risk of significant exposure to the recipient and obtain a blood sample from the recipient

• Provide treatment, depending on the outcome of the risk assessment (Follow up will be provided by H4WDD)

• Perform audits relating to needlestick/sharps injuries and exposure to body fluids

**Emergency Department (ED) – ED will:**
• provide advice about universal precautions, preventing needlestick/exposure incidents and action to be taken if employee experiences such an incident.

• perform immediate first aid if not already performed and assess the risk of significant exposure to the recipient and obtain a blood sample from the recipient

• Provide treatment, depending on the outcome of the risk assessment

6. Reporting of Needlestick/Sharps Injury Incidents

All the initial information / assessment sheets and pathology forms are included in a needle stick injury pack which should be available in every clinical area in the Trust (supplied by IPCT).

All Needlestick/sharps injuries should be reported on the DATIX incident database. The report can be made by the recipient or their line manager but must be recorded on the same day as the incident.

An incident involving exposure to blood or body fluids of a patient known to be infected with a BBV will be reported to the Health and Safety Executive (HSE) under Reporting of Injuries, Diseases or Dangerous Occurrences Regulations 1995 (RIDDOR) by the Trust Health and Safety Adviser.

All exposures to a source with confirmed HIV, HCV or HBV and cases where a HCW started PEP should be reported to the Health Protection Agency’s (HPA) national surveillance scheme by H4WDD.

7. Management of Needlestick/Sharps Injury Incidents (including prophylaxis)

Immediate Action

• Immediate first aid must be administered to the Recipient as detailed below:

• The site of exposure, e.g. wound or non-intact skin, should be washed liberally with soap and water but without scrubbing.

• Antiseptics and skin washes should not be used – there is no evidence of their efficacy, and their effect on local defences is unknown.

• Free bleeding of puncture wounds should be encouraged gently but wounds should not be sucked.

• Exposed mucous membranes, including conjunctivae, should be irrigated copiously with water, before and after removing any contact lenses.

• To ensure immediate assessment, treatment and support is provided to the employee or member of the public, it is vital for all parties to co-operate and liaise effectively.
All employees initially telephone H4WDD within working hours where immediate telephone risk assessment will be performed by the duty nurse who will advise on need for further appointment / intervention. The employee should attend H4WDD with a copy of donor risk assessment if requested to do so. Outside normal working hours the employee should attend ED (16:30 – 08:30) with a copy of the donor risk assessment, however if donor risk assessment is going to be delayed ensure member of staff does not delay attending H4WDD or ED.

8. Risk Assessment and Follow up

Risk assessment of Donor including Screening for BBV

The following actions should be completed when screening a donor for BBV:

- The donor risk assessment is to be completed by senior member of staff responsible for care of donor or in the community setting the testing and management of the donor or person from whom the contamination has occurred, needs to be arranged via a GP

- The donor should be informed about the reason for testing, the difficulties of the exposed employee’s situation in terms of the benefits and the problems associated with PEP - Further details and a copy of the donor risk assessment can be found at appendix E and the suggested wording for requesting consent for BBV screening is included at appendix F

- If the known donor is at high risk, and you are not confident to carry out a pre-test discussion, ask a senior colleague or obtain advice from the sexual health team or health4WDork department

- Inform the donor about the incident and the reason for requesting consent for testing a blood sample

- Obtain written consent for, and carry out blood screening of the donor for HIV antibodies, hepatitis B surface antigen and hepatitis C antibodies (2 x5ml gold topped blood collection tubes) - Occasionally a patient is unable to give consent. Consent cannot be given by a third party like a next of kin. It may now be illegal to test without consent, depending on the interpretation of the Human Tissue Act 2004. If the patient refuses consent, if it would be detrimental for the patient to be approached, or there are other reasons why the testing is not done, this should be recorded and the recipient informed

- Samples must be marked urgent / needlestick incident – donor bloods when sending to the laboratory - If the incident involves an employee please ensure results are copied to the health4WDork department

- It is the responsibility of the donor’s medical team to give results to the donor

Result Negative
Give result to the known donor patient.
If the donor has been at risk, consider the window period and need for retesting of the donor, and the need for the exposed member of staff to continue PEP. Seek advice from the sexual health team.

**Result Positive**
A positive result is never given until a confirmatory test has been performed on a separate blood sample, to exclude laboratory or administrative error. Arrange for support by sexual health team.

**Risk Assessment of Recipient**
The following actions should be completed for a recipient of a needlestick/sharps injury or body fluid exposure.

- Risk assess whether significant exposure has occurred taking into account result of donor risk assessment - Further information can be obtained at appendices B, C & D and a copy of the risk assessment form is located at appendix G
- The hepatitis B vaccination status is documented if known
- A 5ml gold top blood sample will be taken from the recipient for testing with consent – serum save and Hep B surface antibody level (if not already known) indicated on the microbiology request system clearly stating contamination injury screen, and giving Hep B vaccination history
- If risk assessment concludes significant exposure and a known / high risk source of HIV – start HIV PEP without delay. During working hours the individual will be referred to sexual health or ED to ensure commencement within 1 hour of the incident occurring and out of hours ED will commence treatment with HIV PEP (Appendix K & L), the healthH4WDork department will arrange for follow up of HIV PEP via the sexual health team
- If significant exposure and a known /high risk source of HBV or insufficient evidence of Hep B immunity then refer to HBV PEP table for appropriate intervention. This is present at appendix H. Hepatitis B immunoglobulin (HBIG) should be given as soon as possible (within 12 hours) to non-immune individuals following significant exposure without waiting for donor results - If Hep B vaccination is required this should be given within 24 hours
- Information relating to tetanus prone wounds and their management can be found at appendix I
- Advise importance of reporting incident on Datix if not already performed

**Follow up of Recipient (H4WD, Sexual Health, Gastro-enterology)**
ED should fax forms found at appendix E & G to H4WD to ensure employee is followed up or contact the GP/sexual health team to arrange follow up if injury/exposure involves a member of public

Depending on the circumstances, follow-up may include further prophylaxis with antiviral agents (H4WD/sexual health) and/or hepatitis B vaccine / hepatitis B
immunoglobulin and/or serological testing for evidence of BBV infection. For employees this is performed by H4WD. Further details can be found in appendices H & M.

For a known non-responder to hepatitis B vaccine (who has required hepatitis B immunoglobulin (HBIG) following the incident) a second dose of HBIG should be administered one month after the first unless the source is shown to be HBsAg negative.

Serological follow-up of recipient varies according to the BBV status of the donor (if known). Most commonly serological follow-up of the recipient is unremarkable and the recipient is reassured that there is no evidence of BBV infection after the 6 month post-incident test results are shown to be negative.

If there is evidence of development of HIV, individual will be referred to the sexual health team.

If there is evidence of development of hepatic pathology, individual will be referred to gastro-enterology.

### 9. Stakeholders Engaged During Consultation

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<td>07.09.2012</td>
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<tr>
<td>Clinical Director, Unscheduled Care</td>
<td>07.09.2012</td>
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<tr>
<td>Trust Safeguarding Lead</td>
<td>20.09.2012</td>
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<td>Lead Infection Prevention and Control Nurse and Lead health4Work nurse</td>
</tr>
</tbody>
</table>

### 11. Training

Individuals in the Trust should receive needlestick / sharps incident/ exposure to body fluids training to ensure they are aware of their responsibilities. Training will be delivered as outlined in the Trust training needs analysis and will be conducting in line with the Trust Learning and Development Policy.

It is the line manager’s responsibility to provide local induction which must include reference to this policy and appropriate action to be taken in the event of a needlestick / sharps incident/ exposure to body fluids.

ED and H4WD staff must be assessed as competent for their role regarding management of needlestick and body fluid exposure incidents.

### 12. Monitoring Compliance with the Document

Compliance with the policy will be monitored in the following ways:

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<td>Audit of minimum of 20% of inoculation incidents</td>
<td>Annual</td>
<td>Health, Safety and Risk Committee</td>
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<td>b) inoculation incident reporting</td>
<td>Consultant in occupational health</td>
<td>Audit of minimum of 20% of inoculation incidents</td>
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<td>c) process for the management of an inoculation incident (including prophylaxis)</td>
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<td>Audit of minimum of 20% of inoculation incidents</td>
<td>Annual</td>
<td>Health, Safety and Risk Committee</td>
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</table>

13. References

References
Health Protection Agency (2008) United Kingdom Surveillance of Significant Occupational Exposures to Bloodborne Viruses in Healthcare Workers
NHS Employers (2011) Needlestick Injury
Health Protection Agency National Surveillance of Occupational Exposure to Bloodborne viruses

Legislation
Health and Social Care Act 2008

Guidance from other organisations

14. Associated Documentation
Health Clearance Policy
Learning & Development Policy
Managing Health & Attendance Policy
Risk Assessments and Management of Health and Safety Policy
Reporting, Managing and Learning from Incidents Policy

15. Contributors

<p>| Contributor Job Title | Contributor Name |</p>
<table>
<thead>
<tr>
<th>Consultant in Occupational Health</th>
<th>Dr J Spenceley</th>
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<tr>
<td>Director of Infection Prevention &amp; Control</td>
<td>Dr M Dryden</td>
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Appendix A – Equality Impact Assessment

PART 1
To be completed by the document owner

**Document Title:** Prevention & Management of Needlestick/Sharps Injuries and Exposure to Body Fluids policy

<table>
<thead>
<tr>
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<th>Yes/No</th>
<th>Comments</th>
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<tbody>
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<tr>
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<td>Disability</td>
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<td>Sex</td>
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<tr>
<td>Marriage &amp; civil partnership</td>
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<tr>
<td>Pregnancy and maternity</td>
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<tr>
<td>2. If you have identified any potential detrimental impact, do you consider this to be valid, justifiable and lawful? If so, please explain your reasoning.</td>
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<td></td>
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<td>3. If you have answered ‘no’ to question 2, has the policy been amended to remove or reduce any potential detriment?</td>
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<td></td>
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<tr>
<td>• If you answer ‘yes’, please summarise the changes made</td>
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<tr>
<td>• If you answer ‘no’. please explain why not</td>
<td></td>
<td></td>
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<tr>
<td>4. Based on the answers to questions 1 – 3 do you consider that a detailed equality analysis is needed?</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

**NAME:** Dr J Spenceley

**JOB TITLE:** Consultant in Occupational Health

**DATE:** 10th October 2012
PART 2
To be completed by the Trust’s Equality and Diversity Lead

Brief Summary of potential impact of this document and whether sufficient consideration has been given to the Equality Duty

The application of this policy for the Prevention & Management of Needlestick/Sharps Injuries and Exposure to Body Fluids is completely clinically based and ensuring prompt testing and if necessary treatment would be the priority, however the Trust would endeavour to continue to meet patient’s individual needs as far as is practicable. Should a donors test return as positive, then for some of the conditions, it will be important to provide the test results to the patient in a suitably professional manner ensuring no judgement on an individual’s lifestyle is communicated via body language, words used etc.

<table>
<thead>
<tr>
<th></th>
<th>Yes/No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Is this document recommended for publication without amendment?</td>
<td>Yes</td>
</tr>
<tr>
<td>2.</td>
<td>Is this document recommended for publication but with recommended amendments? Please specify.</td>
<td>Na</td>
</tr>
<tr>
<td>3.</td>
<td>Is this document not recommended for publication without amendments being made? Please specify?</td>
<td>Na</td>
</tr>
<tr>
<td>4.</td>
<td>Is it recommended that this document requires a more detailed equality analysis to be undertaken prior to publication?</td>
<td>No</td>
</tr>
<tr>
<td>5.</td>
<td>Specify with which, if any, individuals and groups you have consulted in reaching your decision.</td>
<td>None</td>
</tr>
</tbody>
</table>

NAME: Nicky Smith
JOB TITLE: Equality & Diversity Lead
DATE: 10th October 2012

Note 1
Under the terms of the Equality Act 2010’s public sector Equality Duty, the Trust has a legal responsibility to think about the following three aims of the Equality Duty as part of our decision making and policy development.

- Eliminate unlawful discrimination, harassment and victimisation;
- Advance equality of opportunity between people who share a protected characteristic and people who do not share it; and
- Foster good relations between people who share a protected characteristic and people who do not share it.
Appendix B - Management of Needlestick/Sharps injury / Exposure to Body Fluids Flowchart

**Significant Fluids**
- Blood
- Internal body fluids
- Semen
- Vaginal Secretions
- Saliva (dentists only)
- NOT urine / faeces

**Significant Route**
- Percutaneous
- Broken Skin
- Mucous Membrane

**Needlestick/sharps injury or exposure to body fluids**

**Immediate First Aid**

**If incident involves employee – report to manager and complete DATIX**

**Risk Assessment of recipient, donor and mechanism of injury**

**If donor is assessed as low risk & exposure type is low risk, BBV screening of donor still advisable but no treatment for recipient indicated**

**If donor is known to be HIV +ve or hep B +ve or is assessed as high risk, treatment should be commenced ASAP**

**Issue 5 day HIV PEP with patient information leaflet.**
- Provide hepatitis B prophylaxis as advised in appendix H

**If employee, ensure follow up with H4WD (tel 01962 824326/ fax 01962 825147)**
- If member of public, advise follow up with GP

**If employee, ensure follow up with H4WD (tel 01962 824326/ fax 01962 825147)**
- If member of public, ensure follow up with GP & GUM (if HIV prophylaxis prescribed)
Appendix C - Exposure Types & Risk of Transmission

**Percutaneous exposure:** penetrating injury from a Needle stick or other contaminated sharp object e.g. a bone or contaminated wire or line, which causes bleeding, or visible skin puncture. A bite can carry significant risk if there was blood in oral cavity.

**Mucocutaneous exposure:** contamination of the conjunctiva or contamination of a mucous membrane. If skin is not intact and exposure was to blood; it should be regarded as a percutaneous exposure.

High risk body fluids include:

- Blood
- Any body fluid visibly blood stained
- Exudative / other tissue fluid from burns / skin lesions
- Unfixed tissues and organs
- Semen
- Vaginal secretions
- Synovial fluid
- Cerebrospinal fluid
- Peritoneal fluid
- Pleural fluid
- Pericardial fluid
- Amniotic Fluid
- Saliva with visible blood
- Human breast milk

**Significant exposure:**
Is that from which virus transmission may result. Percutaneous exposures carry a much higher risk of transmission than mucocutaneous exposures. Exposure to blood is more serious than exposure to other body fluids. HBV, HCV and HIV do not cross-intact skin. Exposure to non blood stained saliva, urine, vomit and faeces, to sterile or uncontaminated sharp objects poses no risk.

The main risk factors for transmission of BBVs to HCWs after occupational exposure are: deep injuries sustained with a hollow-bore needle that had been placed in the source patient’s vein or artery

Nearly three-quarters of reported injuries between 2000-2007 were percutaneous injuries. Average estimated seroconversion risks from published studies and reports are:

- 0.3% for percutaneous exposure to HIV-infected blood
- 0.1% for mucocutaneous exposure to HIV-infected blood
- 0.5-1.8% for percutaneous exposure to HCV infected blood with detectable RNA
- 30% for percutaneous exposure for exposure of a non-immune individual to an HBeAg+ve donor.

There is currently no evidence on the risk of transmission for HBV and HCV following mucocutaneous exposure.
Devices causing sharps injuries are numerous including hollow bore needles, solid needles, and ‘other’ sharps, such as scalpels and dental probes.

Even though numerically most occupational exposures involve nursing professionals (48%), reported data suggest that for the first time in 2007 a higher proportion of significant occupational exposures to BBVs were reported by the medical and dental professions (46% compared with 44% amongst nursing staff). Reported exposure injuries in professions allied to medicine and in ancillary staff (porters, security and housekeeping staff) were much lower, (9%). It is however discouraging that 50 of these exposure injuries involved ancillary staff, who were not directly involved in patient care and most were from inappropriately discarded needles.

There have been 14 documented cases of seroconversion of HCWs to HCV (1997-2007) and 5 to HIV (none to HIV since 1999).

In the case of HCV, there is currently no vaccine or chemoprophylaxis. As a minimum, appropriate testing at correct time intervals is important in facilitating early detection of HCV infections, and prompt referral for specialist advice. It has been shown that HCWs who have recently seroconverted and are started on early treatment within six months of acquiring their infection are more likely to go on to clear the virus and not progress to chronic HCV.
## Appendix D - Summary of Risk Factors for Infection with each BBV

<table>
<thead>
<tr>
<th>HBV</th>
<th>HCV</th>
<th>HIV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intravenous drug addict (IVDA)</td>
<td>IVDA</td>
<td>From Sub-Saharan Africa</td>
</tr>
<tr>
<td>Homosexual man</td>
<td>Recipient of unscreened blood products before 1991</td>
<td>Homosexual man</td>
</tr>
<tr>
<td>Infected mother or sexual partner</td>
<td>Recipient of untreated plasma products before 1985</td>
<td>IVDA</td>
</tr>
<tr>
<td></td>
<td>Exposure to infected person</td>
<td>Infected mother or sexual partner</td>
</tr>
<tr>
<td></td>
<td>Working as HCW in area of high prevalence (e.g. Egypt)</td>
<td></td>
</tr>
</tbody>
</table>
Appendix E - Checklist for Contamination Injuries

(please take with you to Health4WDork or ED or alternatively fax the form to Health4WDork 01962 825147)

Recipient of Injury

Name: ........................................ Area Of Work: ........................................

DOB: ........................................ Where Incident Occurred........................................

Date/Time of Incident: ......................... Date/Time of reporting:.........................

Contact tel. number: .................................

Gloves/PPE worn: YES/NO circle as appropriate

Brief Description of the incident

……………………………………………………………………………………………………………………………………………………………………

……………………………………………………………………………………………………………………………………………………………………

Is the injury:

- Blood or other high-risk body fluid? Y/N
- Percutaneous or Mucocutaneous? Delete as appropriate
- Was there visible blood on the device? Y/N
- Was it a hollow bore needle? Y/N
- Has an accident form been completed Y/N

Donor (Patient)

Patient’s Name (if known): ........................................

DOB: .........................

Hospital No: .................................

Reason for admission: .................................

Patient’s consultant: .................................

Name of doctor undertaking risk assessment: .................................

Risk Assessment by donor patient’s Doctor
Check the source patient’s records, is the source patient:

- From a country with a high prevalence of blood borne viral diseases? Y/N
  If yes please specify country?

- Blood product / Organ recipient? Y/N

- IV drug user? Y/N

- Suffering from acute liver disease? Y/N

- Known to have or being treated for a blood borne viral disease? Y/N
  If yes please state details

Has the source patient given informed consent for blood to be taken for hepatitis B antigen, hepatitis C antibody and HIV? Y/N

Has blood been taken from the source patient for the above tests? Y/N
Appendix F - Information for Patients and Families

INFORMATION FOR PATIENTS/FAMILIES IN THE EVENT OF A STAFF BLOOD/BODY FLUID CONTAMINATION INCIDENT

This leaflet explains what will happen when a member of staff comes into contact with your body fluids in such a way that there is a risk of transmitting infection. Body fluids include saliva, urine and faeces but this leaflet is mainly concerned with blood.

Introduction
Accidents will happen. On very rare occasions, a member of staff may injure themselves in such a way it is possible that your body fluids could enter their body. This usually happens because of a needle stick injury, where the member of staff pricks themselves with a needle. This is obviously distressing for the member of staff, and so the Hospital has a specific policy to help them deal with it.
It is the hospital policy that after an accident of this sort, we will ask you to agree to have a blood sample taken. This will then be tested for various diseases that can be passed from one person to another through body fluids. These conditions and diseases are called ‘blood borne viruses’.
As part of our assessment of the seriousness of the situation we will be asking you some detailed personal questions. These will include:
A blood transfusion history, a sexual history, a drug history and your country of origin and where you are currently living.

How will the blood be taken and how much?
A new sample is often needed. A doctor or nurse will take the blood sample using a cannula, Hickman line, implant port or PICC if you already have one. A small amount of blood will be taken.

What tests will be carried out?
The laboratory staff will test the blood sample for Hepatitis B and C and Human Immunodeficiency Virus (HIV), which can be passed on by blood and other bodily fluids. By asking you to agree to this testing, we are not implying that you have any of these diseases. It is only to protect and reassure our staff.

What are the implications of these tests?
It is very rare for these tests to find any trace of these diseases. If the test results are negative, that will be the end of the matter as the information will remain confidential within your clinical records and will not be passed on to your GP or anyone else. In the rare circumstance that the tests show one of these diseases, the results will be given to you by specialists who deal with these diseases. They will be able to offer advice, information and support about options for more tests and treatment. In many cases, there are effective methods of treating these diseases.
If you have any questions after reading this information please discuss with the doctor or nurse who took the blood sample.
EXAMPLE OF STANDARD WORDING FOR APPROACHING DONOR/SOURCE TO GAIN CONSENT

“Unfortunately one of the members of staff has had an accidental injury where your blood (or specify relevant body fluid) has been ‘involved’. I am here to ask if you would let me take a blood sample for testing for the viral infections, which can be transmitted to staff in this way. This is something that we ask for routinely whenever a patient’s blood (or specify relevant body fluid) is involved in such an accident. We need your agreement to do this and would appreciate your help.

The purpose of the testing is to reassure staff where the results are negative. This may allow them to stop taking precautionary medication, which often causes unpleasant side effects. In the unlikely event that a test is positive you will receive specialist advice and management including treatment if required. The staff member may also be offered additional treatment.

The tests are for hepatitis B, hepatitis C and HIV. The test results should be available within a few days (but may take several weeks if extra investigations are required for clarification) and will normally be given to you by a member of the medical staff. The results are confidential, but they will appear in your health record and the affected staff member will also be informed.

Do you have any concerns? A common concern is whether having these tests done will affect any existing life insurance policies or future life insurance applications. The Association of British Insurers has issued guidance stating; ‘Existing life insurance policies will not be affected in any way by taking an HIV test, even if the result is positive.’ For new life insurance applications, companies should only enquire about positive test results, not whether a test has been performed. A positive test result may affect the outcome of a life insurance policy application. Do I have your permission to take a blood sample for hepatitis B, C and HIV testing? I should remind you that you can refuse to have some or all of these tests performed and that if you do choose not to be tested it will not affect your future care and regardless of the results from your recent blood tests your Trust consultant will contact you. If the results are positive a meeting will be arranged to explain them to you.”

CONSENT FROM DONOR FOR HIV, HBV AND HCV BLOOD TEST

WARD: ____________________________________________
DEPT: __________________________________________
LOCATION: _______________________________________
Name (print): ________________________________
Signature of Donor: _____________________________
Date of Birth: _________________________________

Give my consent to my blood being tested for HIV, Hepatitis B and Hepatitis C. (delete as appropriate). I have had the implications of these tests thoroughly discussed with me by:

Member of clinical team (print): ______________________________
Signature of clinician: ________________________________
Date: ______________________________________________

This form stays in the patient’s notes.
## Appendix G - Health4 Work/ED Incident Assessment Form - Recipient

### 1. PERSONAL DETAILS - RECIPIENT

<table>
<thead>
<tr>
<th>DONOR</th>
<th>Known Yes / No</th>
<th>Unknown Yes / No</th>
</tr>
</thead>
</table>

- Name: .................. Hosp No..................
- DOB: ..................Home Tel No: ..................
- Home Address: ..................................
- Work Area: .................. Contact No: .............
- Site: Basingstoke or Winchester
- Hep B Imm Status (if known) ..................
- Date of last hep B vaccination: ..................
- Blood sent for Hep 'B'
- antibody titre & storage: □ Yes □ No
- Has employee informed their manager: □ Yes □ No

### 2. PERSONAL DETAILS - DONOR

<table>
<thead>
<tr>
<th>DONOR</th>
<th>Known Yes / No</th>
<th>Unknown Yes / No</th>
</tr>
</thead>
</table>

- Name: .................. Hosp No..................
- DOB: ..................Contact No: ..................
- Address/Ward: ..................................
- From high risk country □ Yes □ No
- Blood product/organ recipient □ Yes □ No
- IV drug user □ Yes □ No
- Acute liver disease? □ Yes □ No
- Bisexual/homosexual man □ Yes □ No
- Sex with prostitutes from high risk areas □ Yes □ No
- Sexual contact with partner in high risk group □ Yes □ No
- Hep B Status (+ve/-ve/unknown) ..................
- Hep C Status (+ve/-ve/unknown) ..................
- HIV Status (+ve/-ve/unknown) ..................
- Donor screened for: Hep B, Hep C and HIV □ Yes □ No

### SECTION TWO – RISK ASSESSMENT

- Date of Occurrence: ..................
- Time of Occurrence: ..................
- Place of Incident occurred: ..................
- Description of Incident: ..................

- Gloves worn Yes / No
- PPE used Yes / No
- First Aid Performed Yes/No

### INFECTION RISK ACTION

- Low risk injuries, known / unknown status of source blood:
  - Low risk of BBV
  - HIV PEP not indicated
- Exposure of skin, superficial percutaneous injury
- Old needle /other sharp (eg from waste bag, beach or public toilet)

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>Risk of Transmission from Infected Blood</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin exposure</td>
<td>Offer Hep B immunization according to Hep B status of recipient</td>
<td></td>
</tr>
<tr>
<td>Needle exposure</td>
<td>Increased risk of transmission from infected blood</td>
<td></td>
</tr>
<tr>
<td>Increased risk fluids</td>
<td>Offer HIV PEP</td>
<td></td>
</tr>
</tbody>
</table>

**High risk injuries, known / unknown status of source blood:**

- Deep injury
- Visible blood on the device which caused the injury
- Injury with a needle which had been placed in donor’s artery / vein
- Hollow bore needle

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>Risk of Transmission from Infected Blood</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin exposure</td>
<td>Offer Hep B immunization according to Hep B status of recipient</td>
<td></td>
</tr>
<tr>
<td>Needle exposure</td>
<td>Increased risk of transmission from infected blood</td>
<td></td>
</tr>
<tr>
<td>Increased risk fluids</td>
<td>Offer HIV PEP</td>
<td></td>
</tr>
</tbody>
</table>

**Known HIV infected blood:**

- Percutaneous injury (needles, instruments, bone)
- Exposure of broken skin (abrasions, cuts, eczema)
- Exposure of mucous membranes including the eyes and mouth
- Exposure of intact skin

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>Risk of Transmission from Infected Blood</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin exposure</td>
<td>1 in 300</td>
<td>Advise HIV PEP. Follow up H4WDD / GUM</td>
</tr>
<tr>
<td>Needle exposure</td>
<td>Less than 1 in 1000</td>
<td>Offer HIV PEP. F.U H4WDD / GUM</td>
</tr>
<tr>
<td>Increased risk fluids</td>
<td>Offer HIV PEP. F.U H4WDD / GUM</td>
<td></td>
</tr>
<tr>
<td>High risk body fluids (other than blood):</td>
<td></td>
<td>Offer HIV PEP</td>
</tr>
</tbody>
</table>

**Known Hepatitis B infected blood:**

- Percutaneous injury (needles, instruments, bone)
- Other injury

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>Risk of Transmission from Infected Blood</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin exposure</td>
<td>1 in 3</td>
<td>Offer Hep B immunisation according to Hep B status of recipient</td>
</tr>
<tr>
<td>Needle exposure</td>
<td>Risk not quantified</td>
<td>Arrange H4WDD follow up</td>
</tr>
<tr>
<td>Increased risk fluids</td>
<td>Risk not quantified</td>
<td></td>
</tr>
</tbody>
</table>

**Known Hepatitis C infected blood:**

- Percutaneous injury (needles, instruments, bone)
- Other injury

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>Risk of Transmission from Infected Blood</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin exposure</td>
<td>1 in 30</td>
<td>Hep C PEP not available</td>
</tr>
<tr>
<td>Needle exposure</td>
<td>Risk not quantified</td>
<td>Arrange follow up with H4WDD</td>
</tr>
<tr>
<td>Increased risk fluids</td>
<td>Risk not quantified</td>
<td></td>
</tr>
</tbody>
</table>

**High risk body fluids (other than blood):**

- Semen, vaginal secretions, peritoneal, synovial, cerebrospinal, pericardial, pleural and amniotic fluid

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>Risk of Transmission from Infected Blood</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin exposure</td>
<td>Risk not quantified</td>
<td>Offer HIV PEP</td>
</tr>
<tr>
<td>Needle exposure</td>
<td>Risk not quantified</td>
<td>Arrange follow up with H4WDD/GUM Offer Hep B immunisation according to</td>
</tr>
</tbody>
</table>

---

Health4Work Follow up Form – v.1
Authorised by: Policy Approval Group
29/10/12

Page 27 of 42 Date:
**Low risk body fluids:**
- Urine, vomit, saliva and faeces are low-risk body fluids unless they are visibly blood stained

<table>
<thead>
<tr>
<th>Hep B status of recipient. Arrange follow up H4WDD / GUM.</th>
<th>No known risk</th>
<th>PEP not indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recipient counselled on BBV Risk</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION THREE – ACTION TO BE TAKEN (RECIPIENT)**

<table>
<thead>
<tr>
<th>1. Appropriate First Aid measures taken.</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Employee has reported to Health4WDork Department or Emergency Dept immediately.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Manager has completed donor Incident Assessment Form and arranged testing of the donor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Health4WDork Department / Emergency Department have assessed BBV risks to recipient following incident.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Blood samples taken from recipient in SML gold top vacutainer bottle and sent to laboratory for urgent Hepatitis B antibody status and storage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Treatment given: Hepatitis B – None/Booster/Accelerated Hep B Immunisation/Hep B Immunoglobulin HIV - None/PEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Advice and management of incident discussed with recipient.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Contact details given for Health4WDork department/ EAP if requires further support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. E.D Action:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Contact Health4WDork at the earliest opportunity. Phone 01962 824326</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Copy of clinical record for employee sent to Health4WDork (ED staff should fax this completed form to Health4WDork urgently Fax No 5147)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• GUM clinic referral (if appropriate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. DATIX completed by employee</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>11. Health4WDork department have provided follow up appointments</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(To be completed by Health4WDork or ED Staff only)

Signed: .................................................. Date: ......
## Appendix H – Hepatitis B Exposure Guidance

All significant exposures should be treated as if capable of transmitting Hepatitis B. The table below gives advice on the use of both Hepatitis B vaccine and Hepatitis B immunoglobulin (HBIG) in the various circumstances that might arise.

<table>
<thead>
<tr>
<th>Significant Exposure</th>
<th>Non-Significant Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-Exposure</strong></td>
<td><strong>HBsAg positive source</strong></td>
</tr>
<tr>
<td>HBV status of person exposed</td>
<td>≤1 dose HB vaccine pre-exposure</td>
</tr>
<tr>
<td>≥2 doses HB vaccine pre-exposure (Anti HBs not known)</td>
<td>1 dose of HB vaccine followed by 2nd dose one month later</td>
</tr>
<tr>
<td>Known responder to HB vaccine (Anti HBs &gt; 10 miu/ml)</td>
<td>Consider booster dose of HB vaccine.</td>
</tr>
<tr>
<td>Known non-responder to HB vaccine (Anti HBs &lt; 10 miu/ml) 2 to 4 months post immunisation</td>
<td>HBIG X 1 consider booster dose of HB vaccine. A second dose of HBIG should be given at one month</td>
</tr>
</tbody>
</table>

* An accelerated course of vaccine consists of doses spaced at 0, 1 and 2 months. A booster dose is given at 12 months to those at continuing risk of exposure to HBV.
**Appendix I - Protection against Tetanus Guidance**

Tetanus prone wounds include:
- Puncture type injury
- Wounds or burns requiring surgical intervention that is delayed for >6 hours
- Wounds or burns with devitalised tissue or in a patient with systemic sepsis
- Wounds containing foreign bodies
- Compound fractures

### Tetanus Immunisation Following Injuries

<table>
<thead>
<tr>
<th>Immunisation Status</th>
<th>Clean Wound</th>
<th>Tetanus Prone Wound (see definition)</th>
<th>Tetanus Prone Wound (see definition)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine</td>
<td>Vaccine</td>
<td>Vaccine</td>
<td>Human tetanus immunoglobulin#</td>
</tr>
<tr>
<td>Fully immunised i.e. has received a total of 5 doses of tetanus vaccine at appropriate intervals</td>
<td>None required</td>
<td>None required</td>
<td>Only if high risk##</td>
</tr>
<tr>
<td>Primary immunisation complete, boosters incomplete but up to date</td>
<td>None required (unless next dose due soon and convenient to give now)</td>
<td>None required (unless next dose due soon and convenient to give now)</td>
<td>Only if high risk##</td>
</tr>
<tr>
<td>Primary immunisation incomplete or boosters not up to date</td>
<td>A reinforcing dose of vaccine and further doses as required to complete the recommended schedule (to ensure future immunity)</td>
<td>A reinforcing dose of vaccine and further doses as required to complete the recommended schedule (to ensure future immunity)</td>
<td>Yes: one dose of human tetanus immunoglobulin in a different site</td>
</tr>
<tr>
<td>Not immunised or immunisation status not known or uncertain</td>
<td>An immediate dose of vaccine followed, if records confirm this is needed, by completion of a full 5 dose course to ensure future immunity</td>
<td>An immediate dose of vaccine followed, if records confirm this is needed, by completion of a full 5 dose course to ensure future immunity</td>
<td>Yes: one dose of human tetanus immunoglobulin in a different site</td>
</tr>
</tbody>
</table>

# Where IM tetanus immunoglobulin is in short supply, consider the use of a tetanus-containing vaccine and antimicrobial treatment or prophylaxis (contact consultant microbiologist for advice).##

High risk is regarded as heavy contamination with material likely to contain tetanus spores and/or extensive devitalised tissue.
Appendix J – Guidelines for the use of HIV Post-Exposure Prophylaxis for Needlestick Injuries

Based on National Guidance: Clinical Effectiveness Group (British Association for Sexual Health and HIV) Issued February 2011

**Situations when Post-Exposure Prophylaxis is considered (IV, grade C)**

<table>
<thead>
<tr>
<th>Source HIV status</th>
<th>HIV positive Viral load detectable</th>
<th>HIV positive Viral load undetectable</th>
<th>Unknown high prevalence group/area*</th>
<th>Unknown low prevalence group/area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing of injecting equipment</td>
<td>Recommended</td>
<td>Not recommended</td>
<td>Consider</td>
<td>Not recommended</td>
</tr>
<tr>
<td>Human bite</td>
<td>Not recommended**</td>
<td>Not recommended</td>
<td>Not recommended</td>
<td>Not recommended</td>
</tr>
<tr>
<td>Needle-stick from a discarded needle in the community</td>
<td>Not recommended</td>
<td>Not recommended</td>
<td>Not recommended</td>
<td>Not recommended</td>
</tr>
</tbody>
</table>

* High prevalence groups within this recommendation are those where there is a significant likelihood of the source being HIV positive. Within the UK at present, this is likely to be men who have sex with men (MSM) and individuals who have immigrated to the UK from areas of high HIV prevalence (particularly Sub-Saharan Africa).

** This may be considered in exceptional circumstances where an HIV+ individual with a detectable viral load with blood in the mouth bites another individual where the teeth have broken the skin.
Appendix K - Information for Physician Prescribing HIV Antiretroviral Prophylaxis

The current guidelines from the Department of Health recommend the post-exposure prophylaxis (PEP) regime including 2 NRTI drugs and 1 NNRTI or PI for 4 weeks duration.

5 day PEP packs will be available, in Emergency Department and the sexual health clinic consisting of the following:

- **5 x Truvada® tablets** (Tenofovir disoproxil 245 mg plus Emtricitabine 200mg per tablet) .
  Take ONE tablet once daily (can be taken with one of the Kaletra doses AM or PM)
  Take with or without food. Nausea may be reduced by taking after a meal.
  The short term side effects of these medicines are mainly gastrointestinal and include nausea and vomiting.

- **20 x Kaletra® tablets** [lopinavir 200 mg plus ritonavir 50 mg per tablet]
  Take TWO tablets TWICE a day (approx. every 12 hours).
  Take with or without food. Side effects associated with Kaletra® include diarrhoea, nausea and vomiting and abdominal pain. The incidence of diarrhoea is reduced if loperamide is taken concurrently.

The pack also contains:

- **30 x Loperamide 2mg capsules**
  Take ONE to TWO capsules up to FOUR times a day if you notice any diarrhoea.

- **30 x Domperidone 10mg tablets**
  Take ONE tablet up to THREE times a day if you have any significant nausea.

Treatment should be started as soon as possible following risk assessment, ideally within one hour, but certainly within 72 hours, but it can be considered up to 2 weeks after exposure depending on circumstances. Individuals presenting after 72 hours should be referred to GUM for further assessment. Treatment is normally continued for 4 weeks. A patient information leaflet should be provided (appendix K)

The patient should attend the sexual health clinic before 5 days treatment runs out for review regarding continuation of PEP for the rest of the total duration.

Antiretroviral drugs are not licensed for PEP, so must be prescribed on a named person basis.

Have you checked?

The level of risk from exposure – is PEP warranted?

PEP is recommended if significant exposure has occurred through blood or high risk fluids from a donor either known to be HIV infected or considered to be at a high risk of infection where the result of an HIV test has not or cannot be obtained. The aim of the treatment is to inhibit HIV from...
reproducing before it can enter cells and establish infection in the body. Evidence that PEP prevents HIV infection is based on biological plausibility – i.e. it is reasonable to assume PEP could work based on what the drugs achieve with HIV affected individuals.

**Significant exposure** = percutaneous exposure (injury from a needle stick or other contaminated sharp object e.g. a bony spicule, a bite which causes bleeding or other visible skin puncture)

Mucocutaneous exposure to blood or high-risk body fluids (i.e. contamination of non-intact skin, e.g. abrasions, cuts or eczema, contamination of the conjunctiva or contamination of a mucous membrane).

**High risk fluids** = Blood, amniotic fluid, vaginal secretions, semen, human breast milk, cerebrospinal fluid, peritoneal fluid, pleural fluid, pericardial fluid, synovial fluid, unfixed tissues and organs or saliva with visible blood present.

Percutaneous exposure is of higher risk than mucocutaneous exposure, and exposure to blood is more serious than exposure to other body fluids. HBV, HCV and HIV do not cross intact skin. Exposure to saliva, urine, vomit and faeces, (providing they are not blood stained) or to sterile or uncontaminated sharp objects poses no risk.

**Advisable Base-line Investigations:**
FBC, U&E’S, LFT’s, glucose

**Is the health care worker pregnant or breastfeeding?**
Pregnancy is not an absolute contra-indication to the use of PEP. If after a risk assessment has been carried out, PEP is indicated, an urgent pregnancy test should be arranged. Expert opinion should be sought whenever possible before initiating PEP to pregnant woman. Information may be available from the sexual health team via normal contact mechanisms.

**Are they on oral contraceptives?**
Kaletra® accelerates the metabolism and clearance of the oral contraceptive pill. In the first instance, sexual intercourse should be avoided. If not, then a barrier method of contraception should be used.

**Do they have any other medical conditions?**
- Renal impairment – contraindicated with Truvada
- Liver impairment- use of Kaletra® in severe hepatic impairment is contraindicated. Kaletra® is metabolised and eliminated principally by the liver. Treatment may have to be discontinued in worsening liver disease.
- Diabetes- Hyperglycaemia has been reported in patients taking protease inhibitors, including Kaletra®.
- Haemophiliac patients- possibility of increased bleeding.
• Lipid elevations – treatment with Kaletra® has sometimes resulted in marked increase in levels of cholesterol and triglycerides. There is no long term consequence of taking this for 4 weeks.

**Are they taking any other medication including ‘over the counter medicines and herbal products?’**

• Lopinavir blood levels may be decreased by concurrent use of rifampicin
• Kaletra® may inhibit metabolism of quinidine, erythromycin, clarithromycin, simvastatin, lovastatin, sildenafil
• St Johns Wort decreases blood levels of Kaletra®, therefore concurrent use should be avoided.

If further advice is required during working hours contact sexual health department, or, out of hours - on call microbiologist via switchboard.
Appendix L - Post Exposure Prophylaxis (PEP) Information for Healthcare Workers Occupationally Exposed to HIV Infection

This pack contains a 5 day supply of medication which you should start taking immediately. PEP treatment should continue for 4 weeks. The remainder of the course will be prescribed for you, if indicated, following a further assessment by the Sexual Health Department.

Contents:

5 day PEP packs will be available, in Emergency Department and the sexual health clinic consisting of the following:

- **5 x Truvada® tablets** (Tenofovir disoproxil 245 mg plus Emtricitabine 200mg per tablet)
  Take ONE tablet once daily (can be taken with one of the Kaletra doses AM or PM)
  Take with or without food. Nausea may be reduced by taking after a meal.
  The short term side effects of these medicines are mainly gastrointestinal and include nausea and vomiting.

- **20 x Kaletra® tablets** [lopinavir 200 mg plus ritonavir 50 mg per tablet]
  Take TWO tablets TWICE a day (approx. every 12 hours).
  Take with or without food. Side effects associated with Kaletra® include diarrhoea, nausea and vomiting and abdominal pain. The incidence of diarrhoea is reduced if loperamide is taken concurrently.

The pack also contains:

- **30 x Loperamide 2mg capsules**
  Take ONE to TWO capsules upto FOUR times a day if you notice any diarrhoea.

- **30 x Domperidone 10mg tablets**
  Take ONE tablet upto THREE times a day if you have any significant nausea.

Treatment should be started as soon as possible following risk assessment, ideally within one hour. Treatment is normally continued for 4 weeks.

Drug Interactions
The medicines in this pack may interact with medication you are taking for other conditions. Please let the doctor know who prescribed the pack if you are taking any other medication.
- Lopinavir blood levels may be decreased by concurrent use of rifampicin
- Kaletra® may inhibit metabolism of quinidine, erythromycin, clarithromycin, simvastatin, lovastatin, sildenafil.
- St John’s Wort decreases blood levels of Kaletra®, therefore concurrent use should be avoided.

**Pre-existing medical conditions**
You may not be able to take these drugs if you have a kidney or a liver problem so you must let the doctor who prescribed the pack know about any medical problem you already have.

**Oral Contraceptives®**
Kaletra® can reduce the efficacy of the oral contraceptive pill. In the first instance you should refrain from sexual intercourse to protect your partner. If, however, you do not, then a barrier method of contraception must be used.

**Pregnancy**
Please inform the doctor who prescribed this pack for you if you are, or think you may be pregnant

**Breastfeeding**
Breastfeeding is relatively contra-indicated whilst taking PEP. Please inform the doctor if you are breastfeeding.

When will I know if the treatment has been effective?
Follow up blood testing is performed at 6 weeks, 3 months & 6 months. Negative tests at all stages would be regarded as reliable evidence of effectiveness of treatment.
## Appendix M - Health4Work Follow up Form

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor R.A form completed &amp; received</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recipient R.A form completed &amp; received</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donor / source blood test results</td>
<td>+ve</td>
<td>-ve</td>
</tr>
<tr>
<td>HIV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HBsAg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recipient counselled:</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Risk / statistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OH follow up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infection control precautions – safe sex / blood donation, etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recipient HBV PEP</td>
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<td></td>
</tr>
<tr>
<td>Recipient HIV PEP</td>
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<td></td>
</tr>
<tr>
<td>Referral to GUM/ OHP/ GI</td>
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<td></td>
</tr>
<tr>
<td>Recipient Blood Tests Required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 Weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Weeks</td>
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<tr>
<td>24 Weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recipient informed of all blood test results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RIDDOR Reportable?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPA National Surveillance System Report</td>
<td></td>
<td></td>
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<tr>
<td>Incident Closed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Recipient Follow-up testing

<table>
<thead>
<tr>
<th>HIV positive source&lt;sup&gt;a&lt;/sup&gt;</th>
<th>6 weeks post-incident</th>
<th>3 months post-incident</th>
<th>6 months post-incident</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV antibody testing (combined Ag/Ab assay) – if +ve for HIV PCR</td>
<td>HIV antibody testing (combined Ag/Ab assay)</td>
<td>HIV antibody testing (combined Ag/Ab assay)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HBV surface antigen positive source</th>
<th>-</th>
<th>HBsAg HB core antibody</th>
<th>HBsAg&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>HCV positive source&lt;sup&gt;c&lt;/sup&gt;</th>
<th>HCV PCR</th>
<th>HCV PCR HCV antibodies</th>
<th>HCV antibodies</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>BBV status of source unknown&lt;sup&gt;e&lt;/sup&gt;</th>
<th>HCV PCR&lt;sup&gt;d&lt;/sup&gt; HIV antibody testing (combined Ag/Ab assay) – if +ve for HIV PCR</th>
<th>HIV antibody testing(combined Ag/Ab assay) HBsAg HCV antibodies</th>
<th>HIV antibody testing(combined Ag/Ab assay) HBsAg&lt;sup&gt;b&lt;/sup&gt; HCV antibodies</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>BBV status of source negative</th>
<th>No testing unless symptoms or signs of acute disease.</th>
<th>No testing unless symptoms or signs of acute disease</th>
<th>No testing unless symptoms or signs of acute disease</th>
</tr>
</thead>
</table>

**Notes:**

a) Investigating the recipient for evidence of HIV infection may additionally be required if symptoms compatible with a seroconversion illness occurs at any time during follow-up (typically fever, rash, myalgia, fatigue, malaise or lymphadenopathy).

b) Hepatitis B surface antibody testing 14 months after the incident can be offered to those recipients who received an accelerated course of HB vaccine as post-exposure prophylaxis to assess their response to vaccination.

c) An incident involving a source who is HCV antibody positive but HCV PCR negative will require the same follow-up as for that from a HCV PCR positive source. The risk of transmission from a HCV PCR negative source will however be much lower.

d) Not generally indicated for exposure occurring outside of a healthcare setting.

e) Blood covered needle/sharp from unknown source.

Name of OH Practitioner:______________________________________________________________

Signature of OH Practitioner:________________________________________________________

Date:__________________________________________
Appendix N - Guidance on Prevention of Sharps Injuries

Essentials of prevention during procedures:

- Risk assessment should be undertaken prior to each procedure with the aim of reducing or eliminating risk.
- Appropriate personal protective equipment must be worn. Where possible gloves should be worn especially if there are cuts or broken areas of skin. Gloves will not prevent an injury but they significantly reduce the risk of transmission of blood borne viruses (wiping effect).
- All sharps must be disposed of carefully at the point of use by the original user of the sharp, using a portable sharps bin designed specifically for this purpose.
- Sharps must not be passed directly from hand to hand and handling should be kept to a minimum.
- Needles must not be recapped, bent broken or disassembled after use.
- Used sharps must be discarded into a sharps container (conforming to UN3291 and BS 7320 standards) at the point of use by the user.
- The safety aperture in the sharps bin must be closed between uses.
- All sharps bins should be positioned out of the reach of children at a height that enables safe disposal by all members of staff.
- They should be secured to avoid spillage.
- Disposable needles and syringes must be disposed of as a single unit.

Essentials of disposal

- Bins must not be filled above the mark that indicates the bin is full.
- The sharps bin must be locked when ready for final disposal in accordance with the manufacturer’s instructions.
- To avoid the risk associated with overfilling, sharps containers must be removed from the clinical area when at the ‘fill line’.
- Used containers should be securely closed and labelled with the date and point of origin prior to sending for disposal.
- If a sharps bin is deemed faulty, does not lock or appears damaged, then it should be carefully placed inside a larger sharps bin for disposal.
- Sharps must NEVER be placed into clinical waste bags.
- Sharps bins must never be moved or transported with their safety aperture open.

Managers’ duties

- Sharps bins should be made available at all locations where sharps are used.
- Sharps bins should be correctly assembled in accordance with the manufacturer’s instructions and be the appropriate size for the sharps being discarded.
- Sharps bins should be stored out of public areas.
• Portable sharps bins should be stored ready for use, with the appropriate integrated sharps tray, in a cupboard out of the public areas.
• To ensure that there is a management pack in every treatment room in there are at all times (restock from Microbiology reception).

Do needle protection devices reduce avoidable injuries?

The rise in reported occupational exposure to BBV and pressure to the Health Protection Agency has led to the development of needle stick-prevention devices in many different product groups. The main aim of such devices is to minimise the risk of injury to HCWs during needle use and after disposal to the housekeeping or portering staff who are responsible for the collection of sharps disposal units.

A review by a national working group failed to identify any convincing evidence that needle stick prevention devices were responsible for any significant impact on injury rates. This was primarily due to the lack of well-designed, controlled intervention studies. More recent studies have shown significant reductions in injuries associated with the use of safety devices in cannulation, phlebotomy and injections. A review of needle stick injuries in Scotland suggested that 56% of injuries would ‘probably’ or ‘definitely’ have been prevented if a safety device had been used. However, there are barriers to the expected reduction in injuries, including staff resistance to using new devices, complexity of device operation or improper use, and poor training.

The EPIC guidelines recommend that trusts should:

• consider the use of needle stick prevention devices where there are clear indications that they will provide safe systems of working for healthcare practitioners.
• conduct a rigorous evaluation of needle stick-prevention devices to determine their effectiveness, acceptability to practitioners, impact on patient care and cost benefit prior to widespread introduction.

The trust is under obligation to adhere to these recommendations.
### Generic risk assessment for [please insert work area]

<table>
<thead>
<tr>
<th>RISK ASSESSMENT (subject)</th>
<th>ASSESSOR:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharps/Blood Borne Viruses</td>
<td>DATE:</td>
</tr>
<tr>
<td>DEPT/WARD</td>
<td>SIGNATURE</td>
</tr>
</tbody>
</table>

#### HAZARD: (please tick as relevant)
- [ ] Needles for IM injections
- [ ] Venepuncture needles
- [ ] IV cannulae
- [ ] Butterfly needles
- [ ] Other sharp instruments (Please list)

#### RISK OF BLOOD BORNE VIRUSES
It is difficult to estimate the level of infection risk to workers because there is under-reporting of needlestick injuries and health surveillance measures may not be in place. The World Health Organisation estimates about 3 million of the 35 million health care workers worldwide are exposed to blood-borne pathogens each year. The risk after exposure to infected blood has been estimated as:
- Hepatitis B (risk ~30%)
- Hepatitis C (risk ~10%)
- HIV (risk ~0.3%)

#### PEOPLE AT RISK: (Please list all staff groups who may be potentially exposed)

#### EXISTING CONTROLS: (All of the following should be in place)
- Basic measures to protect workers from blood-borne pathogens include:
  1. Hand washing after each patient contact and after contact with blood or body fluids.
  2. Appropriate PPE (Personal Protective Equipment) · disposable gloves should be worn whenever working with blood or body fluids.
  3. Disposable plastic aprons/impermeable gowns should be worn when splashing with blood or body fluids may occur.
  4. Eye protection (visors, goggles, or safety spectacles) should be worn when blood, body fluids or flying contaminated debris/tissue might splash into the face.
  5. Covering any cuts or abrasions with waterproof plasters.
  6. Immediate and safe disposal of sharps into appropriate, puncture proof sharps bins.
  7. Not overfilling sharps containers.
  8. Suitable placement of sharps bins for the safe and efficient disposal of sharps.
  10. Training in safe use of sharps, infection control, incident reporting.

#### EVALUATION OF RISK: (with the existing controls)

<table>
<thead>
<tr>
<th>Hazard rating</th>
<th>Probability</th>
<th>Risk Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. None</td>
<td>1. Rare</td>
<td>15 – 25 High Risk</td>
</tr>
<tr>
<td>2. Minor</td>
<td>2. Unlikely</td>
<td>9 – 12 Significant</td>
</tr>
<tr>
<td>3. Serious</td>
<td>3. Moderate</td>
<td>4 – 8 Moderate</td>
</tr>
<tr>
<td>4. Major</td>
<td>4. Likely</td>
<td>0 – 3 no risk</td>
</tr>
<tr>
<td>5. Catastrophic</td>
<td>5. Certain</td>
<td>Insert Risk rating</td>
</tr>
</tbody>
</table>

Multiply rating x probability = Score
### ACTIONS:
Risk rating 1 and 2 – you should proceed to a more detailed risk assessment of the process/procedure/task. Consider stopping task/procedure/process and using safer sharps devices if appropriate.

Risk rating 3 - providing the above control measure are in place, the risk of contracting a blood viruses is deemed to be moderate. You should ensure all staff have been offered vaccinations for hepatitis B and that all staff are aware of the incident reporting procedures for sharp injuries.

Risk rating 4 – deemed to be no risk and no further action is recommended.

**PLEASE LIST FURTHER ACTIONS AS RELEVANT:**

<table>
<thead>
<tr>
<th>TO BE ACTIONED BY:</th>
<th>REVIEW DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>