The Newcastle upon Tyne Hospitals NHS Foundation Trust

Infection Prevention and Control Guidelines for the Management of Patients with Bloodborne Viral Infections

Version No.: 4.2
Effective From: 28 June 2016
Expiry Date: 28 June 2019
Date Ratified: 12 May 2016
Ratified By: Infection Prevention and Control Committee

1 Introduction

NOTE: As it will never be possible to identify all individuals with these infections prospectively the blood and body fluids of ALL patients must be considered as potentially infective. (See Standard Precautions Policy).

2 Scope

This document gives guidance on the management of patients with blood borne viral infections from the infection prevention and control perspective. There is considerable overlap with other trust guidelines and policies. These should be referred to in conjunction with these guidelines where indicated. Trust guidelines can be found at http://intranet/Policies/policies.asp.

Includes: Hepatitis B Virus (HBV)
Hepatitis C Virus (HCV)
Hepatitis D Virus (HDV)
Human Immunodeficiency Virus (HIV)
Miscellaneous blood-borne Viruses

Does not include: Creutzfeldt-Jakob Disease (CJD) and variant CJD (vCJD)
See: ‘Guidelines for the Control of Transmissible Spongiform Encephalopathies (TSEs) in hospital patients’

Viral Haemorrhagic Fever
See: ‘Viral Haemorrhagic Fever: guidance for admitting physicians’

Guidance on haemodialysis
See: ‘Guidelines for the prevention of blood borne virus transmission in the haemodialysis service’.

3 Aims

The aim of this policy is to ensure that patients with blood borne virus infections are appropriately managed to prevent transmission of infection to patients and staff. In particular the policy aims to raise awareness that all patients are potentially infectious and that standard precautions and other policies should be followed regardless of infection status.
4 Duties (Roles and responsibilities)

- The Chief Executive has overall responsibility for the implementation, monitoring and review of this policy
- This responsibility is delegated to the Director of Infection Prevention and Control (DIPC).
- The Infection Prevention and Control Committee (IPCC) will review the policy and any new evidence base within the time frame set out in the policy
- It is the responsibility of the Trust to ensure that policies, education, training and procedures are in place to minimize the risk of transmission/infection
- It is the responsibility of the Trust/line managers and service heads to ensure that policies, procedures and access to education and training are made available to all staff
- It is the responsibility of all staff to ensure that they understand and implement this policy and attend training sessions as specified in their role
- Sisters/Charge Nurses/Managers should ensure that adequate supplies of Personal Protective Equipment (PPE) are readily available for staff use.

5 Definitions

Hepatitis B Virus (HBV)
Hepatitis C Virus (HCV)
Hepatitis D Virus (HDV)
Human Immunodeficiency Virus (HIV)

6 Infection Prevention and Control in the management of patients with blood borne viral infections

6.1 Background

6.1.1 HBV

HBV infection is the most readily transmitted of the viruses covered in this guidance. The main routes of transmission in the UK are via sexual intercourse and intravenous drug use. The virus can also be transmitted mother to child at birth. Transmission has been documented via tattooing, body piercing and acupuncture and via contaminated razors or toothbrushes. In the healthcare setting it can be transmitted during exposure-prone surgical and dental procedure and transmission has also occurred on renal dialysis units and in relation to re-use of diabetic lances and monitoring equipment. Transmission of infection is preventable by adherence to Standard Precautions

Acute infection can be asymptomatic or may result in the symptoms and signs of acute or fulminant hepatitis. In endemic HBV areas (e.g. Africa and South East Asia) where the commonest route of infection is mother to child, 90% of children infected at birth go on to develop chronic hepatitis. This level reduces to 1-5% in immunocompetent individuals infected as adults. Chronic HBV infection is defined as the presence of HBV surface antigen in the blood for more than 6 months.
Chronic HBV infection can be asymptomatic but may progress to hepatitis, cirrhosis, hepatic failure, the need for liver transplant or hepatocellular carcinoma. Current treatment options do not normally result in cure, but can suppress the virus and prevent or delay the onset of liver damage. **HBV is infectious at all stages of infection.**

HBV infection can be prevented by vaccination. This is not currently part of the national vaccination schedule in the UK and therefore the majority of patients will be susceptible to infection. Although all healthcare workers should be offered vaccine, 10-15% of health care workers do not respond to vaccine and remain susceptible. After a known exposure the risk of infection can be reduced by the use of hepatitis B immunoglobulin and/or vaccine.

6.1.2 HCV

The main route of HCV transmission in the UK is via intravenous drug abuse. In the healthcare setting it can be transmitted during exposure-prone surgical and dental procedure. In contrast to HBV, HCV is only rarely transmitted in other ways (e.g. sexual intercourse or during childbirth). In the past infection has been transmitted by infected blood or blood products, however screening of donations has now made this a highly unlikely route in the UK. Again transmission of infection is preventable by adherence to Standard Precautions.

Acute infection is usually asymptomatic, with up to 80% of individuals developing chronic HCV infection (as shown by the detection of viral RNA in the blood by PCR assay). Chronic HCV infection remains asymptomatic for many years, but as with HBV many progress to hepatitis, cirrhosis, hepatic failure, the need for liver transplant or to hepatocellular carcinoma. There is no vaccine; however recent advances in the treatment of Hepatitis C virus infection mean that clearance of virus is possible in the majority of patients following a prolonged course of antiviral therapy.

6.1.3 HIV

HIV infection can occur via the inoculation of contaminated blood. Worldwide it is a sexually transmitted infection with up to 10% occurring mother to child at birth. Infection is also transmitted via intravenous drug abuse. In the past infection has been transmitted by infected blood or blood products, however screening of donations has now made this a highly unlikely route in the UK.

Initial infection is usually asymptomatic but may produce a self-limiting glandular fever-like illness. At a later stage, features such as night sweats, diarrhoea and persistently enlarged lymph nodes may develop. Untreated, infection progresses to the Acquired immunodeficiency Syndrome (AIDS) which is characterised by opportunistic infections. Currently there is no cure for HIV infection, however highly effective
treatment with combinations of antiviral drugs can control the infection, prevent progression to AIDS and significantly reduce the risk of transmission.

6.1.4 HDV

HDV infection occurs only in the presence of HBV infection. Transmission is via the same routes as for HBV, from an HBV/HDV coinfected individual. It is acquired either at the same time as acute HBV infection, or as a superinfection in an individual with chronic HBV. The presence of HDV can exacerbate the symptoms/signs of chronic HBV. Prevalence varies widely but high levels are found in southern Europe, the Middle East, Japan, Taiwan and parts of Africa and South America. There is no specific vaccine, although infection can be prevented by HBV vaccination.

6.1.5 Miscellaneous blood-borne viruses

In recent years a number of blood-borne viruses have been identified i.e. GBV and TT virus. As yet infection with these viruses has not been linked to disease and it is unlikely that a patient's status for these viruses will be known. It is almost certain that other blood-borne viruses exist which have yet to be identified.

Additionally a number of other viruses that are not primarily transmitted via the blood-borne route can be present in the blood during infection. For example hepatitis E virus is normally acquired in the UK via ingestion of undercooked pork products, but can more rarely be transmitted via blood transfusion or via infected donor organs.

These points again emphasise the importance of Standard Precautions for all patients regardless of infection status.

6.2 Care of Patients in hospital known to be infected with blood borne viruses.

As all patients must be assumed to be potentially infected the following general policies equally apply to patients with and without confirmed blood borne viral infections.

See related policies: Infection Control: Standard Precautions, Hospital Isolation Policy, Needlestick Injuries: Code of Practise, Disinfection Policy, Waste Management Policy, Hospital Laundry Policy

6.2.1 Patients who are bleeding, have undergone surgery, or are at high risk of sudden bleeding (e.g. significant oesophageal varices) should be cared for in single room accommodation with en-suite facilities/own commode regardless of infection status. Further precautions/isolation
may be required as the result of other concomitant transmissible infections (see Isolation Policy).

6.2.2 Patients who are adequately self-caring and do not meet the criteria in 6.2.1 do not require isolation. They may be admitted to the open ward and allowed the same activity as other patients without restrictions regarding the use of bathroom facilities, crockery or cutlery. Standard Precautions should be taken to avoid sharing of personal hygiene equipment such as razors and tooth brushes. Non-invasive investigations such as Chest X-Ray and ECG can be carried out without additional precautions.

6.2.4 During venipuncture and other ward based invasive procedures normal protocols should be followed. See the ‘Infection Control: Standard Precautions’ and ‘Needlestick Injuries: Code of Practice’ policies.

6.2.5 In the event of a needle-stick or splash injury to a member of staff or another patient urgent action is required. A senior member of staff MUST be informed. Any potential exposure incident from a source patient known, or suspected, to be infected with a bloodborne virus should be discussed urgently with the doctor on-call for Infectious Diseases. In the case of staff exposure the trust ‘Needlestick injuries: code of practice’ should also be followed. Needlestick injuries should be reported to Occupational Health or out of hours to RVI A&E or EAU Freeman Hospital. The incident must also be reported to the Clinical Governance and Risk Department (CGARD) via the Trust Datix Web System.

6.2.6 Patients will be given both verbal and where required written information about their condition and treatment. Where required communication support such as interpreters will be provided to explain information.

6.3 Surgery

See: Policy for infection control practice in the operating theatre.

The blood and body fluids of ALL patients must be considered as potentially infective. Screening should not be carried out pre-operatively except where clinically indicated.

6.4 Care of patients in community settings

All staff must adhere to Trust Standard Precautions and Hand Hygiene Policy. Patients cared for in their own home do not require additional IPC precautions.

Community staff can offer advice to patients/carers/relatives on cleaning the environment within their own home. Further advice can be sought from the Infection Prevention and Control nurse when required. N.B. Cleaning agents
containing chlorine must not be used on patient's furniture or furnishings. These items should be cleaned using warm soapy water and disposable cloths.

Community staff involved in the care of a patient at home must undertake a risk assessment in cases where waste is felt to constitute a potential infectious risk (for example where it contains a significant quantity of blood). Documents to assist with risk assessment and the process for collecting clinical waste from patient homes is available on the IPC intranet site.

6.5 Procedure after Death

See: Policy on the use of Cadaver Bags

7 Training

All staff working on Trust premises, including Trust employed staff, agency and locum staff are responsible for accessing IPC Policies in order to assist in the management of their patients.

Training on standard precautions is incorporated into the Trusts induction and statutory and mandatory e-learning training programmes. It is the responsibility of the departmental/service lead to ensure that training is offered to all relevant staff in relation to the Standard precautions for IPC and care of patients with blood borne virus infections.

8 Equality and Diversity

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

9 Monitoring Compliance

The organisation continually strives to achieve 100% compliance with this guideline and its intended outcomes. Where this is not met an action plan will be formulated and reviewed until completion. The recommendations in this policy primarily aim to reinforce standard precautions in the management of all patients, including those known to have blood borne virus infections. The monitoring arrangements for the Standard Precautions Policy therefore apply. Where evidence is found that any additional precautions as per this policy have not been followed, this will be investigated and an action plan formulated.
<table>
<thead>
<tr>
<th>Standards</th>
<th>Monitoring and audit</th>
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<tbody>
<tr>
<td>Method</td>
<td>By</td>
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<tr>
<td>Acute setting</td>
<td>within the framework of the Clinical Assurance Tool (CAT)</td>
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<tr>
<td>Hand hygiene and Bare below the Elbow (BBE)</td>
<td>Link practitioners, ward/service managers</td>
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<tr>
<td>Personal protective equipment</td>
<td>IPCC</td>
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<tr>
<td>Frequency</td>
<td>Monthly</td>
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<tr>
<td>Community setting</td>
<td>within the framework of the Essential Steps Audit Tool</td>
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<tr>
<td>Hand hygiene and BBE</td>
<td>Link practitioners/ with support from Infection Prevention and Control team if required</td>
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<tr>
<td>Personal protective equipment</td>
<td>IPCC</td>
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<tr>
<td>Sharps management</td>
<td>If this is a review of incidents or complaints, etc. it should be continuous</td>
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<td></td>
<td>• Continuously</td>
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<td>• Annually</td>
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10  Consultation and review

Consultation of this policy was undertaken by the IPCC. This policy will be reviewed every three years by the IPCC or as and when significant changes make earlier review necessary.

11  Implementation (including raising awareness)

This policy is available for staff to access via NUTH intranet.

12  References


13  Associated documentation

Trust policies
- Disinfection Policy
- Policy for infection control practice in the operating theatre
- Hospital Isolation Policy
• Hospital Laundry Policy
• Infection Control: Standard Precautions
• Needlestick Injuries: Code of Practice
• Policy on the use of Cadaver Bags
• Standard Precautions Policy
• Waste Management Policy
The Newcastle upon Tyne Hospitals NHS Foundation Trust

Equality Analysis Form A

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

PART 1

1. Assessment Date: 16/05/2016

2. Name of policy / strategy / service:
   Infection Prevention and Control Guidelines for the Management of Patients with Bloodborne Viral Infections

3. Name and designation of Author:
   Sheila Waugh, Consultant Virologist

4. Names & designations of those involved in the impact analysis screening process:
   Sheila Waugh, Consultant Virologist

5. Is this a: Policy X Strategy Service
   Is this: New Revised X
   Who is affected Employees X Service Users X Wider Community

6. What are the main aims, objectives of the policy, strategy, or service and the intended outcomes? (These can be cut and pasted from your policy)
   This document gives guidance on the management of patients with blood borne viral infections from the infection prevention and control perspective, and reinforces the fact that standard precautions and policies should be followed for all patients.

7. Does this policy, strategy, or service have any equality implications? Yes No X
   If No, state reasons and the information used to make this decision, please refer to paragraph 2.3 of the Equality Analysis Guidance before providing reasons:
   This policy endorses the use of standard precautions for all patients with no exceptions. It does not discriminate against any individual or group based upon their race, ethnicity, nationality, gender, culture, religion or belief, sexual orientation, age or disability.
### 8. Summary of evidence related to protected characteristics

<table>
<thead>
<tr>
<th>Protected Characteristic</th>
<th>Evidence, i.e. What evidence do you have that the Trust is meeting the needs of people in various protected Groups</th>
<th>Does evidence/engagement highlight areas of direct or indirect discrimination? If yes describe steps to be taken to address (by whom, completion date and review date)</th>
<th>Does the evidence highlight any areas to advance opportunities or foster good relations. If yes what steps will be taken? (by whom, completion date and review date)</th>
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<tbody>
<tr>
<td>Race / Ethnic origin (including gypsies and travellers)</td>
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<td>Sex (male/ female)</td>
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<td>Religion and Belief</td>
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<td>Sexual orientation including lesbian, gay and bisexual people</td>
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<td>Age</td>
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<td>Disability – learning difficulties, physical disability, sensory impairment and mental health. Consider the needs of carers in this section</td>
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<td>Gender Re-assignment</td>
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<td>Marriage and Civil Partnership</td>
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<td>Maternity / Pregnancy</td>
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### 9. Are there any gaps in the evidence outlined above? If ‘yes’ how will these be rectified?

- [ ]

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

Do you require further engagement?  
- Yes  
- No [X]

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

- No
PART 2

Name: Sheila Waugh

Date of completion: 16/05/2016

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