## Policy: ICP1

### Infection Prevention & Control Policy Guidelines

<table>
<thead>
<tr>
<th>Version:</th>
<th>ICP1/07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratified by:</td>
<td>Trust Management Team</td>
</tr>
<tr>
<td>Date ratified:</td>
<td>15&lt;sup&gt;th&lt;/sup&gt; April 2015</td>
</tr>
<tr>
<td>Title of originator/author:</td>
<td>Infection Control Nurse Specialist</td>
</tr>
<tr>
<td>Title of responsible Director</td>
<td>Director of Nursing and Patient Experience</td>
</tr>
<tr>
<td>Governance Committee</td>
<td>Infection Control &amp; Patient Environment Group</td>
</tr>
<tr>
<td>Date issued:</td>
<td>21&lt;sup&gt;st&lt;/sup&gt; April 2015</td>
</tr>
<tr>
<td>Review date:</td>
<td>April 2018</td>
</tr>
<tr>
<td>Target audience:</td>
<td>All staff Trust wide</td>
</tr>
<tr>
<td>Disclosure Status (B)</td>
<td>B Can be disclosed to patients and the public</td>
</tr>
</tbody>
</table>

### Embedded Documents

<table>
<thead>
<tr>
<th>EIA</th>
<th>![ICP1 EIA.doc](ICP1 EIA.doc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation Plan</td>
<td>![ICP1 implementation](ICP1 implementation)</td>
</tr>
</tbody>
</table>

### Other Related Procedure or Documents
### Equality & Diversity Statement

The Trust strives to ensure its policies are accessible, appropriate and inclusive for all. Therefore all relevant policies will be required to undergo an Equality Impact Assessment and will only be approved once this process has been completed.

### Sustainable Development Statement

The Trust aims to ensure its policies consider and minimise the sustainable development impacts of its activities. All relevant policies are therefore required to undergo a Sustainable Development Impact Assessment to ensure that the financial, environmental and social implications have been considered. Policies will only be approved once this process has been completed.
## ICP 1 - Infection Prevention & Control Policy and Guidelines

### Version Control Sheet

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Title of Author</th>
<th>Status</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICP1/01</td>
<td>October 2005</td>
<td>Director of Nursing</td>
<td>New Policy</td>
<td>New Policy titled - Introduction</td>
</tr>
<tr>
<td>ICP1/02</td>
<td>9th November 2007</td>
<td>Director of Nursing and the Infection Control Nurse Specialist</td>
<td>Revised Policy</td>
<td>Revision made to policy</td>
</tr>
<tr>
<td>ICP1/03</td>
<td>30th January 2009</td>
<td>Deputy Director of Nursing and the Infection Control Nurse Specialist</td>
<td>Revised Policy issued</td>
<td>Substantial revision, including name change – <strong>Infection Prevention &amp; Control Policy and Guidelines</strong> - to policy in Nov 2008 and approved at Jan 09 CSSG meeting. <em>In Oct 09 minor changes made to reflect new Health and Social Care Act 2008</em></td>
</tr>
<tr>
<td>ICP1/05</td>
<td>30th July 2010</td>
<td>Deputy Director of Nursing and Infection Control Nurse Specialist</td>
<td>Revised Policy issued</td>
<td>Policy Presented to Policy Review Group 20th July 2010 – approved.</td>
</tr>
<tr>
<td>ICP1/06</td>
<td>May 2012 November 2013</td>
<td>Infection Control Nurse Specialist</td>
<td>Revised Policy issued</td>
<td>Substantial revision, procedures added Minor amendments made on page 26 under Legionnaires Disease. Re-issued 06.11.13</td>
</tr>
<tr>
<td>ICP1/07</td>
<td>March 2014</td>
<td>Infection Control Nurse Specialist</td>
<td>Revised Policy issued</td>
<td>Presented to June TMT for approval.</td>
</tr>
<tr>
<td>ICP1/07</td>
<td>March 2015</td>
<td>Infection Control Nurse Specialist</td>
<td>Legislative changes made to section 14 – Transportation of Specimens, also to Appendix 2. Trustwide consultation ending 25.02.15</td>
<td></td>
</tr>
<tr>
<td>Contents</td>
<td>Page No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>---------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1  Flowchart</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2  Introduction (includes purpose)</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3  Scope</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4  Definitions</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5  Duties</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1 Chief Executive and Trust Board</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2 Director of Nursing &amp; Patient Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.3 All Line Managers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.4 Trust Infection Control Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.5 All Trust Staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6  Systems &amp; Recording</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7  Infection Control Assurance Framework</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8  Infection Prevention and Control Policies and Procedures</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.1 Core Clinical policies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.2 Guidelines for Individual Infections</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.3 Environmental Policies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.4 Decontamination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.5 High Standards of Hygiene</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.6 Research and Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9  Information Available to Service Users and the Public</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Surveillance</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Transfer of Service Users</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Process for Monitoring the Effectiveness of this Policy</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Health Care Workers</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.1 Occupational Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 A-Z of Infectious Diseases</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.1 Other Related Procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Training</td>
<td>46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Monitoring</td>
<td>46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Fraud Statement (if required)</td>
<td>47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 References</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 Supporting documents</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 Glossary of Terms/Acronyms</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 Appendices</td>
<td>51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appendix 1 - Indicative List of Category A Infectious Micro-organisms ADR 2015</td>
<td>52</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.0 Infection control policy flowchart

Suspect/confirmed case of infection

Report to Infection Control

No
Collect and review information
Ensure protocols are followed
Monitor

Notifiable infection

Yes
Collect and review information
Inform DIPC, ICD, PHE, Occupational Health
Outbreak Meeting
Ensure protocols are followed
Monitor
2.0 Introduction

2.1.1 Successful management to prevent and control infections is recognised by the Trust as a significant factor in the quality and safety of the care of service users and those in the local healthcare community. The health and safety of staff is also of paramount importance.

2.1.2 The Chief Executive and the Trust Board are responsible for Infection Prevention and Control within the Trust. The Board seeks full compliance against the framework of the Health and Social Care Act 2008 Code of Practice for the Prevention of Healthcare Associated Infections and this policy provides an assurance framework.

2.1.3 The arrangements in this policy are to encourage and support Clinical Directorates in their responsibility for infection prevention and control in their service users.

2.1.4 The tenets of this policy are that:
- There is support by the Trust Board for the Infection Prevention and Control (IPC) Programme
- Trust wide targets are established within the IPC programme
- Infection prevention and control is a Directorate responsibility
- All staff take responsibility for Infection Prevention and Control
- Directorates participate in the Trust Infection Prevention and Control audit programme to reflect the commitment to control and prevent infections
- Any risk identified, e.g. through risk assessment, clinical audits or incident reporting is entered onto the Directorate risk register or if appropriate escalated to the Corporate Risk register and monitored.
- Directorates develop action plans to address any deficits highlighted during the audit process
- Resource staff have protected time for IPC activities

2.2 Background

2.2.1 The prevention and appropriate management of infection is of paramount importance to the quality and safety of the care of service users, visitors and staff. It is therefore, important that all staff take appropriate actions during the discharge of their duties to assess the potential risks of infection to reduce these risks whenever possible.

2.2.2 Service users may develop infections outside the hospital; these are referred to as community-acquired infections. The majority of these infections are not preventable. However, these service users may represent the source of the spread of infection to other service users or staff. Infections acquired after admission are referred to as either hospital acquired or healthcare associated infection.

2.2.3 Micro-organisms can spread between service users and staff and have the potential to contaminate the environment. Whilst environmental contamination is not a significant factor in all hospital acquired infections, there are some bacteria and viruses that do contribute to hospital acquired infections occurring as a direct result of environmental contamination. Healthcare environments need to be clean and
safe systems of environmental control measures must be implemented to minimise the potential of cross infection occurring.


2.3.1 In 2008 (The Health Act and the Code of Practice for the Prevention and Control of Healthcare Associated Infections) Health and Social Care Act (sometimes referred to as the Hygiene Code) was introduced. The Health and Social Care Act provides an assurance framework that ensures appropriate systems are in place to ensure service users are cared for in a clean environment and where the risks of healthcare associated infections are kept as low as possible. The requirements of the Health Act have been taken into account with the development of this policy.

2.3.2 Infection Prevention and Control is an important part of an effective Risk Management programme to improve the quality of patient care and the occupational health of staff. In addition to the need to prevent avoidable infection which arises from ethical considerations, there are legal duties to take appropriate steps to protect service users, staff and visitors from harm.

2.3.3 The Trust promotes the Control of Infection within all healthcare facilities and the Infection Prevention and Control Team acts as a resource for both staff and service users within Trust facilities. In order to achieve this the Trust accepts that the implementation of an effective Infection Control operational policy will enable it to work towards reducing risks to all persons who are likely to be affected by the Trust’s activities.

3.0 Scope

3.1 Implementing Infection Prevention and Control measures is an overall concern and, therefore, this Policy applies to all Trust employees, visitors, service users and others and the duty extends to bank, agency and temporary staff and forms part of the Trust’s approach to Health and Safety.

3.2 Aim

3.2.1 The aim of this policy is to ensure a cultural shift towards the Infection Prevention and Control within the Trust and commits the Trust to ensuring that there are effective arrangements for Infection Prevention and Control.

3.2.2 The arrangements will put in place an effective Infection Prevention and Control programme with defined objectives, provide for regular review and ensure that any managerial action to assist that programme is taken.

3.3 Reporting to Public Health England (PHE)

3.3.1 The Trust will ensure that it complies with directives from the Department of Health, with regard to reporting Healthcare Associated Infections (HCAI) to Public Health England.
4.0 Definitions

4.1 Infection control refers to policies and procedures used to minimize the risk of spreading infections, especially in hospitals and human or animal health care facilities.

4.2 Infection control is the discipline concerned with preventing nosocomial healthcare-associated infection, a practical (rather than academic) sub-discipline of epidemiology. It is an essential, though often under-recognized and under-supported, part of the infrastructure of health care. Infection control and hospital epidemiology are akin to public health, practiced within the confines of a particular health-care delivery system rather than directed at society as a whole.

5.0 Duties

5.1 The Chief Executive and Trust Board

5.1.1 They have a collective responsibility for Infection Prevention and Control within the Trust, the Trust Infection Control Group is accountable to the Chief Executive. The Trust accepts this policy as an agreement for its collective responsibility to support the measures to prevent and control the risks of healthcare associated infections.

5.2 The Director of Nursing and Patient Experience is the Director of Infection Prevention and Control [DIPC]

5.2.1 The Director of Nursing and Patient Experience is the Trust lead for Infection Prevention and Control, he/she is accountable and reports directly to the Trust Board. The DIPC is responsible for the Infection Prevention and Control Team and for ensuring that appropriate arrangements are in place for Occupational Health to prevent and manage occupational risks of infection. The DIPC oversees the effective implementation of Infection Prevention and Control policies, assesses the impact of new guidance/directives and provides quarterly reports of healthcare associated infections and an annual report on Infection Prevention and Control to the Trust Board.

5.3 CSU Directors and Clinical Directors

5.3.1 CSU Directors and Clinical Directors will ensure that the results of audits and surveillance are reported at Directorate meetings and are used to inform Directorate planning. In the event of an infection control risk being identified following an assessment, audit or inspection Clinical Directors and Service Directors are responsible for ensuring remedial action is taken, if required, to minimise risk, following assessment, audits or inspections and provide information on the risk and actions taken in line with the Trusts Risk Management policy and strategy.

5.3.2 Clinical Directors and Service Directors also have responsibility for the allocation of appropriate funds for the correction of any hazardous/ineffective procedures within departments and ensuring that Infection control advice is sought at the earliest
stages of service change and development.

5.4 The Head of Operations Estates and Facilities

5.4.1 The Head of Operations Estates and Facilities must ensure joint working with the infection prevention and control leads within the Trust, in relation to service development and provision of clean and clinically effective environments.

5.5 All Line Managers

5.5.1 They have a responsibility to provide adequate resources in terms of capacity and finance for both the Prevention and Control of Infection. They also have a responsibility to ensure that their staff attend the relevant training as advertised by the Trust’s Learning and Development Centre. Line managers will ensure that the responsibilities for Prevention and Control of Infection, which are reflected in all staff members’ job descriptions, are incorporated into annual appraisal.

5.6 The Trust Infection Control Group [TICG]

5.6.1 This group supports the Infection Control Team and commissions all Infection Prevention and Control Policies and protocols. The group is responsible for the review and sharing of lessons from root cause analysis of Infection Control related incidents.

5.6.2 The Infection Control Team (ICT) consists of two Infection Control Doctors, one based at Wexham Park Hospital and one based at Ealing General Hospital and an Infection Control Nurse specialist.

5.6.3 The ICT will support the development and implementation of Trust Infection Control Policies and protocols. The team will be responsible for producing an annual Infection Control programme in consultation with the Trust Infection Control Group. The group will initiate, develop and lead in delivering Infection Control education for staff and service users and will be involved in the relevant programmes and groups designed to improve the quality of services to service users. The ICT will offer support and education to service users and family members about Infection Control precautions as required and will provide expert advice to all Trust staff when caring for service users with communicable conditions. The team will be responsible for liaising with relevant clinical and non-clinical staff and liaise with appropriate external agencies, i.e. PHE, Acute Trusts, CCG, DH etc and will ensure Link Nurses meet on a regular basis with the team.

5.6.4 The team will be responsible for the development and leading the Trust Infection Control Audit Programme and will ensure that information is available to service users and the public with regard to the Trust’s processes and management of preventing and controlling health care acquired infections, via leaflets, posters and information on the Trust’s intra/internet site.

5.7 All Trust Staff

5.7.1 They are personally accountable for their actions and responsible for ensuring that they comply with the agreed policy, understanding their legal duty to take reasonable care of their own health, safety and security and of other persons who
may be affected by their actions, and for reporting untoward incidents and areas of concern.

5.7.2 All staff are responsible for identifying infectious conditions and circumstances that may lead to outbreaks of infection which require specific controls to protect themselves, their service users or others. They are responsible for notifying the Infection Control Team of such circumstances and it is the responsibility of such workers to ensure that, during the course of their daily work, they utilise the safe Infection Control working systems developed both locally and nationally.

6.0 Systems and recording

Positive results

<table>
<thead>
<tr>
<th>Where recorded</th>
<th>RiO – progress notes, ICD10 code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who records</td>
<td>Nurse / doctor on ward</td>
</tr>
</tbody>
</table>

Notification

<table>
<thead>
<tr>
<th>Phone / e-mail to DIPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone / e-mail to Infection Control Doctor</td>
</tr>
<tr>
<td>Phone / e-mail to Public Health England – Only if a Notifiable Infection</td>
</tr>
<tr>
<td>Phone / e-mail Occupational Health</td>
</tr>
<tr>
<td>Who notifies</td>
</tr>
</tbody>
</table>

Contract tracing (depending on outbreak)

<table>
<thead>
<tr>
<th>Where recorded</th>
<th>RiO – progress notes for patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who records</td>
<td>Nurse</td>
</tr>
</tbody>
</table>

Action plan

<table>
<thead>
<tr>
<th>Teleconference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who discusses</td>
</tr>
<tr>
<td>Who arranges</td>
</tr>
</tbody>
</table>

7.0 Infection control assurance framework

7.1 The Board supports the provision of adequate resources to secure effective prevention and control of healthcare associated infections.

7.2. The Board will ensure that Mandatory Infection Control Training Programmes are resourced and that Directorates are accountable for ensuring all staff involved in the direct and indirect care of service users, attend appropriate training sessions.

7.3 The Board will receive an annual report outlining an effective audit programme that monitors compliance with key policies. The Board receives an annual report from the designated Director outlining key issues relating to Decontamination of the environment to ensure the National Minimum Standards of Cleanliness are met, and equipment to ensure compliance with National Standards for Decontamination are met.
7.4 The Director of Infection Prevention and Control [DIPC] has the authority to challenge inappropriate clinical hygiene practice and will bring significant risk issues to the attention of The Patients Safety and Safe Guarding Committee and The Quality Assurance Committee. The DIPC will ensure where appropriate that any significant/high risk is escalated onto the Trusts Corporate Risk Register. Any issues of non-compliance with the Health and Social Care Act (2008) will be reported through the Infection Prevention and Control reporting processes.

7.5 The DIPC will ensure that rates of healthcare associated infections within the Trust are available to members of the public.

7.6 The Infection Control Group approves and recommends the effective implementation of Trust wide protocols and initiatives and all Infection Control Policies. The group approves the Trust wide Infection Control programme and promotes the education of all healthcare workers relating to Infection Control.

7.7 The Infection Control Team (ICT) will ensure performance is measured against Standards for Better Health and the Health and Social Care Act (2008) Code of Practice for the Prevention and Control of Healthcare Associated Infections. The team will liaise with Trust Estates and Facilities to ensure infection control advice is sought at the earliest stages of service development.

7.8 The team, with Service Managers, will identify and control outbreaks of infection and when appropriate will initiate the formation of an Outbreak Control Group as required and will provide a written outbreak summary to the Infection Control Group, the DIPC and the Chief Executive.

7.9 Directorate Clinical Directors and Service Directors will ensure the effective implementation of Infection Control policies and protocols within their direct area of responsibility and have a responsibility to ensure that all staff receive, induction training and attend ongoing Infection Prevention and Control training in line with Trust requirements. All training must be recorded on the Trust reporting system.

8.0 Infection prevention and control policies and procedures

8.1 Core clinical policies

Core clinical policies, listed below, can be accessed separately on the Trust Intranet.

ICP2 Hospital Infection Outbreak Contingency Plan
ICP5 Hand Hygiene
ICP6 Inoculation and Sharps Injuries
ICP7 Blood Borne Viruses
ICP9 Tuberculosis
ICP10 Waste Policy
ICP12 Meticillin Resistant Staphylococcus Aureus (MRSA)
ICP14 Cleaning and Decontamination Policy
ICP16 Hospital cleanliness
8.2 Guidelines for individual infections (Listed below from A to Z with hyperlinks)

Guidelines for the care of service users with individual infections, listed below, can be found within this policy

Acinetobacter
Athletes Foot
Campylobacter Enteritis
Chicken Pox and Shingles
Creutzfeldt Jacob Disease
Cryptosporidium
Escherichia Coli (E-Coli)
German Measles
Glandular Fever
Hepatitis A
Impetigo
Infestations
Gastroenteritis Viral and Food Borne
Legionnaires Disease
Meningitis
Mumps
Ringworm
Salmonella
Severe Acute Respiratory Syndrome (SARS)
Transmissible Spongiform Encephalopathy (TSE)

Other Related Guidelines
Pets
Opening, Transfer or Closure of Wards
Handling and Transportation of Specimens
Isolation

8.3 Environmental Policies

The Trust will develop premises and facilities to meet best practice guidance (HTM/HBN). The ICT will be consulted for policy development and services relating to:

- Cleaning services.
- Building and refurbishment, including air handling systems.
- Waste Management.
- Food services and food hygiene.

8.4 Decontamination

Within the Trust, the majority of equipment/medical devices used are single use only. Any reusable medical devices are decontaminated in line with Trust protocol.
The decontamination programme currently utilised demonstrates that:

- Decontamination of reusable medical devices takes place in appropriate dedicated facilities.
- There is a monitoring system in place to ensure that decontamination processes are fit for purpose and are in accordance with the required standard (please refer to ICP14)

8.4.1 The Joint Patient Environmental Group and Infection Control Group ensure that adverse events/issues relating to decontamination are reported to Patient Safety and Safeguarding Meeting

8.5 High Standards of Hygiene

8.5.1 The Trust recognises the importance of high standards of cleanliness within the clinical environment and the requirement to implement an effective audit programme to demonstrate that high standards of cleanliness are achieved.

8.5.2 Ward Managers will work with facilities staff to develop best practice and report via local monthly Infection Control Meetings and the Trust Quarterly Infection Control Group on the standard of cleanliness within their clinical areas.

8.5.3 Directorates will support the cleanliness programme to ensure that service users are cared for in a clean safe environment.

8.6 Research and Development

8.6.1 The Trust recognises that quality research and development is essential to underpin effective actions that will minimise the risk of Healthcare Associated Infections for service users. The Trust will support the participation in research programmes that meet ethical requirements.

9.0 Information available to service users and the public

9.1 The Trust's quarterly prevention and infection control reports are available on the Trusts website and the Trust has patient information leaflets which provide information and guidance on preventing and controlling hospital acquired infection.

10.0 Surveillance

10.1 The Trust recognises that information on healthcare associated infections and antimicrobial resistance is essential to measure progress against performance targets. Surveillance is carried out at local level, the results of surveillance are used to inform Directorate and Trust planning.
10.2 The IPCT ensures that there is full participation with national mandatory surveillance schemes as required by the Department of Health. Results are reported to the Trust and Executive Boards and to the Infection Control Group and are available in the public domain.

11.0 Transfer of service users

11.1 When transferring service users to another care setting, it is vital to inform the receiving clinical ward if they have an infection. All service users who are diagnosed with an infection transferred are reviewed at the Trust Quarterly Infection Control Group.

12.0 Process for monitoring the effectiveness of this policy

12.1 Ongoing Surveillance, the infection prevention and control audit programme and the Trusts infection prevention and control action plan will monitor the effectiveness of the application of this policy as will the external and internal reporting of processes for hospital acquired infections.

13.0 Health care workers

13.1 Occupational Health

13.1.1 The Occupational Health Department has a key role in helping management and staff in fulfilling their responsibilities under the Health and Safety at Work Act 1974. The Infection Control Team and Occupational Health Department have a joint responsibility for minimising the risk to service users from staff-borne illnesses.

13.1.2 The Occupational Health service makes available a programme of appropriate vaccination and offers updating of vaccinations for all NHS staff. Final responsibility however, lies with the individual to keep their vaccinations and immunisations up to date.

13.2.3 The Occupational Health Department in conjunction with the Infection Prevention and Control Team are responsible for ensuring staff are offered the appropriate prophylaxis and follow up following inoculation injuries and occupational exposure to viruses.

13.2.4 Where there are outbreaks of infections amongst staff the Infection Control Team and the Occupational Health Department liaise on the appropriate way of dealing with such occurrences.

14.0 A-Z of Infectious diseases

14.1 In this section information is given regarding infections, and advice on how to prevent the spread of infection. A doctor will have diagnosed most of the diseases
and managers are requested to inform the Infection Control Team of any staff or patient who has been diagnosed as having an infectious illness.

ACINETOBACTER
This is a type of bacteria which normally lives in the environment in soil and water and can sometimes be found on the skin of healthy people who carry it harmlessly. There are at least 30 different species of Acinetobacter and a few of these particularly Acinetobacter baumannii cause infections in hospital patients who are already very ill. These hospital adapted strains are sometimes resistant to many antibiotics and the infections that they cause can be very difficult to treat, and cause pneumonia, wound infections, septicaemia and meningitis.

Transmission:
Person to person spread.

Standard Precautions:
Good hand hygiene

Prevention:
Environmental cleaning
Disposal of exposed medical equipment.

ATHLETE’S FOOT (TINEA)
Athlete's foot is a skin disease caused by a fungus, usually occurring between the toes. The correct name is *tinea pedis*. The feet can provide a warm, dark, and humid environment which encourages fungal growth.

Transmission
Athlete's foot is usually caught where bare feet come into contact with the fungus. The warmth and dampness of changing rooms encourages fungal growth. Infection can also spread through contaminated bed sheets and clothing.

How infectious is athlete's foot
Athlete's foot is quite infectious.

What are the symptoms
A person with athlete's foot has an itchy, scaly, dry rash on the bottom and sides of his or her feet and between the toes. There can be inflammation and blisters on the bottom of the feet. The blisters can lead to the cracking of the skin exposing raw tissue causing pain and swelling. An infection of the toenails can occur at the same time. The toenails become crumbly and are hard to cut. The fungus can spread if the infection is scratched and other body parts are then touched. The initial stage of infection usually only lasts 1-10 days, but a persistent, untreated infection can persist for months or years.

How serious is it
Normally it is only a mild infection. The blisters can lead to cracking skin which sometimes allows bacterial infections of
the feet.

**Can you prevent it**
Good foot hygiene is the best way to prevent infection. You should:

- Wash your feet daily and dry them carefully, especially between the toes.
- Reduce foot perspiration by using talcum powder.
- Avoid tight footwear, especially in summer.
- Wear cotton socks that keep your feet dry and change them frequently, especially if you tend to sweat heavily.

**Treatment**
The Feet must be washed frequently. All areas between the toes must be dried thoroughly and then kept dry by dusting foot powder in socks. Many cases need use nothing more than this.

In more severe cases lotions and creams that kill fungi are prescribed by doctors. The whole course of medication must be taken otherwise the rash may disappear while the infection remains.

Early treatment is better as once infection has spread to the toenails it becomes harder to deal with.

**CAMPYLOBACTER ENTERITIS**
Is the commonest cause of bacterial food poisoning in the UK. Most cases are associated with the consumption of contaminated poultry, though it has occasionally been linked to unpasteurised milk and untreated water.

Campylobacter is an acute illness, the incubation period is usually three to four days, but can be up to ten days. This is followed by 24 hours of fever, headache, and prostration. The main illness consists of diarrhoea which is watery and may be bloody. Vomiting may occur at the onset and abdominal pain is constant.

Diagnosis is by sending a stool sample for culture to the microbiology laboratory.

**Infective Material**
Contaminated poultry. Unpasteurised milk and untreated water. Faecal matter.

**Incubation**
Usually 3 to 4 days, occasionally 1 to 10 days.

**Duration**
Can be infectious until treated with a course of antibiotics and until 48 hours after diarrhoea has ceased. Can be ill and weak for a number of weeks.

**Precautions**
Follow Standard Precautions
Wear gloves and apron when in contact with any body fluids, and when collecting specimens. Wash hands thoroughly.

See guidelines to be followed for outbreaks of Diarrhoea and Vomiting

**CHICKEN POX & SHINGLES**
Both chickenpox and shingles are caused by the Varicella zoster virus.

Chickenpox is one of the most common and contagious diseases of childhood and is also one of the mildest. The disease is seldom severe and complications are rare. For some patients the disease has special hazards e.g. children with leukaemia, patients with
reduced immunity, pregnant women and the newly born whose mothers get chickenpox shortly before or after delivery.

Shingles is a reactivation of chickenpox and cannot be caught. The virus remains at the end of nerves after a bout of chickenpox and, when immunity is reduced, can reactivate.

As Varicella is highly infectious in susceptible persons, then infectious patients should be isolated in a side room. As this may be an issue with some patients, then the Infection Control Team should be contacted for more information.

Only staff that are immune should look after the patient. Gloves and aprons should be worn for hands-on care and handwashing should be performed before leaving the room.

Staff and Pregnant Contacts of Positive Patients
If staff are not immune and have come into contact with the positive person, they should contact the Occupational Health department who can perform a blood test, as 60% of people who have not had an obvious bout of chickenpox, are actually immune.

If they are not immune, then they will need to stay off work between days 10 and 21.

Pregnant women are at risk if they are not immune and have been in contact with the positive patient in the first 20 weeks of pregnancy or the last 3. They should contact Occupational Health, their midwife or GP. Again a blood test can be performed to confirm if they are immune.

If pregnant women are not immune and are in the risk period of the pregnancy, then they will require immunoglobulin.

CHICKENPOX
People who have previously had chickenpox are usually not susceptible to becoming infected again unless they have a reduced immunity.

Incubation, from contact to first symptoms, is usually 14 to 21 days although people may be infectious for four days before symptoms appear and for approximately 6 days afterwards.

Chickenpox characteristically appears in ‘crops’ and appears on the trunk and face to start with and later on the limbs. Each lesion is oval and develops a crust before they heal. There may also be pyrexia during the first 2 or 3 days of the rash.

Chickenpox can be highly infectious as it is transmitted via the respiratory route and susceptible people are liable to pick it up if they are exposed.

SHINGLES
Shingles is a reactivation of chickenpox and cannot occur unless the person has had chickenpox in the past. It is more common in the elderly, although it can occur at any age.

It is transmissible to susceptible people, although as it is not respiratory born, but transmitted by the contact route, it is a lot less infectious. Patients are infectious for about 5-7 days from the onset of rash.

Vesicles appear along the route of nerve ganglia where the virus has been dormant. The
rash can be intensely painful and analgesia should be given.

**VARICELLA ZOSTER IMMUNOGLOBULIN**
This should only be given to people who are at a high risk of side effects if they develop a Varicella infection. It can reduce the risk of an infection occurring if given within 10 days of exposure, although it has best effect if given within 72 hours. The immunoglobulin is only available through the Health Protection Agency at Colindale and needs to be discussed with the local Health Protection Unit.

**Varicella Zoster Immunisation**
There is a vaccine for Varicella and should be given to susceptible health care workers who have no contraindication. This can protect both the health care worker and patients.

The vaccination schedule is two doses, 8 weeks apart for people over 13 years or a single dose for children from over 1 year.

Contraindications include:
- Immunocompromised patients
- Pregnancy
- Hypersensitivity reaction to neomycin or gelatine
- Hypersensitivity to previous dose

**CREUTZFELDT-JACOB DISEASE – CJD/NEW VARIANT CJD/PRIONS**
CJD refers to human spongiform encephalopathies, degenerative brain diseases which are invariably fatal. They cause characteristic spongiform changes in the brain on pathological examination. The causative agent is remarkably resistant to conventional sterilisation and disinfection techniques. It is thought that CJD is caused by infectious proteins known as ‘prions’ which are rogue forms of a normal protein found in the brain.

CJD has a long incubation period which is known to be up to 25 years or more in some types of the disease.

**There are different types of CJD:**
**Sporadic or Classical CJD**
This is currently the most common form. There are around 50 cases a year. It is very unusual in people aged under 40 years. The cause of classical CJD is unknown.

**Variant CJD (vCJD)**
Only recently recognised. 100 cases in total in the UK. It affects young people. Duration of the illness approximately 14 months. Early stages of illness patients experience a personality change and psychiatric symptoms such as depression. It is thought to be causally related to exposure to the agent that causes bovine spongiform encephalopathy in cattle.

**Iatrogenic CJD**
Associated with treatments administered in the 1970’s using human pituitary derived growth hormone and human dura mater grafts. A few cases have also been associated with corneal grafts and a few with contaminated instruments used in brain surgery.

**Familial Prion Disease**
Rare types of CJD that are familial. This disease is characterized by the degeneration of the nervous system and is invariably fatal. CJD has been transmitted from person to person by medical procedures, as the infective agents cannot be inactivated by normal
sterilisation procedures. Single use medical devices must be used. Causes a pre-senile dementia, illness begins with clumsiness, ataxia, tremor, and progresses to intellectual and motor impairment, leading to death. The illness has a short duration after the onset of progressive symptoms, but varies according to the type of CJD, 3-4 months in classical CJD, 14 months in vCJD and 2-5 years in inherited forms.

**Transmission**
Diet, Medical Devices, Transplant of organs especially corneal grafts.

**Diagnosis**
Test for a protein '14-3-3' found in CSF. Detection of this protein supports the diagnosis of CJD.

**CRYPTOSPORIDIUM**
A parasite which causes diarrhoea. It can be contracted from food, milk, contact with farm and domestic animals, swimming pools and contaminated water. It is unpleasant, but self-limiting diarrhoea with a sudden onset of gastrointestinal and sometimes 'flu like' symptoms coupled with watery diarrhoea. Abdominal cramps, vomiting and loss of appetite are common, and the symptoms last for two to three weeks.

**Transmission**
Food, milk, contaminated water. Contact with farm and domestic animals, swimming pools and faecal oral route.

**Incubation**
Three to six days.

**Duration**
Two to three weeks, Infectious for duration of diarrhoea.

**Precautions**
Follow Standard Precautions
Wear gloves and aprons.
Hand hygiene.
Boil water.

**NB Causes outbreaks**
See guidelines to be followed on outbreaks of diarrhoea and vomiting

**ESCHERICHIA COLI (E COLI 0157)**
E coli is a bacterial disease of the gastrointestinal tract. This organism ferments a wide range of sugars, and it is transmitted by contaminated food and water.

**Transmission**
Food borne and person to person

**Infective Material**
Contaminated food or water.

**Incubation Period**
One to five days.
**Sudden Onset**  
Diarrhoea and vomiting.  
Moderate fever.

**Precautions**  
Follow Standard Precautions  
Gloves and apron  
Wash hands thoroughly

**NB Causes outbreaks**  
See guidelines to be followed for outbreaks of diarrhoea and vomiting

---

**GERMAN MEASLES (RUBELLA)**  
Rubella is a systemic viral infection. Although it is highly infectious it causes a trivial disease, but it can affect the developing foetus causing tissue damage and developmental defects. The clinical features include a mild sore throat and mild conjunctivitis or gritty feeling in the eyes, and then a rash appears on the third day.

**Transmission**  
By air droplet or by direct person to person contact.

**Incubation**  
17 to 18 days.

**Infectivity**  
One week before onset of the rash and to at least 4 days following the onset of the rash.

**Precautions**  
Follow Standard Precautions. Pregnant women who have been exposed to/in contact with an infected patient or health care staff must contact Occupational Health and or the Infection Control Team.

**Treatment of Linen**  
All linen and clothing to be treated as infectious.

---

**GLANDULAR FEVER (INFECTIONOUS MONONUCLEOSIS)**  
Glandular fever (Infectious mononucleosis) is a virus infection causing, fever, enlarged and tender glands. It frequently causes a prolonged period of tiredness and debility.

**Symptoms**  
Glandular fever often starts with headache, and tiredness. The major symptoms then develop, and may last seven to twenty one days including tender enlargement lymphadenopathy, about 10% develop a faint red rash on the trunk and limbs. Occasionally hepatitis and jaundice and splenomegaly occur. After the initial symptoms have passed, most people continue to feel tired all the time, and are easily exhausted. This is frequently accompanied by depression.
Causes
The commonest cause of glandular fever is Epstein-Barr virus (EBV) another virus causing glandular fever like illness is Cytomegalovirus.

Incubation period
4 to 7 weeks; it is thought to spread in a similar way to many other viruses, from saliva.

Infectivity
Glandular fever may be infectious for weeks to months, but just over half of the population has developed immunity while young, with a milder form of the condition.

Treatment
There is no specific treatment for glandular fever.

HEPATITIS A (HAV)
This is caused by an entero-virus which is found in the gut. Hepatitis A Virus is excreted in faeces. It is caught by eating a virus that someone else has passed.

Transmission
Is by faecal or oral contamination.

Infective Materials
Faeces and urine.

Incubation Period
Two to six weeks.

Duration of Infectivity
The patient is infectious for 2 weeks before the onset of Jaundice and for 7 days after developing the Jaundice.

Prevention
Close contacts may be offered Immunoglobulin vaccine. Hand hygiene is paramount for staff and the patient.

Precautions
Follow Standard Precautions.
Wear gloves and apron.
Wash hands thoroughly.

IMPETIGO
A contagious skin infection caused by direct inoculation of group A streptococci or Staphylococcus aureus into superficial cutaneous abrasions or compromised skin. It is most commonly seen in children, usually located on the face, especially about the nose and mouth. The characteristic features are the presence of discrete fragile vesicles surrounded by an erythematous border that become pustular and rupture to discharge a thin, amber coloured seropurulent fluid that dries and forms a thick yellowish crust, the pustules may spread peripherally with central healing, evolving into annular, circinate or gyrate patterns.
Transmission
Direct contact with pus from lesions. Hand to hand contact.

Incubation
4 to 10 days, but can occur several months after colonisation.

Infectivity
Whilst lesions remain moist or until 48 hours after commencing antibiotics

Precautions
Follow Standard Precautions. Towels should not be shared. Staff should wear gloves when in contact with infected person, and when dealing with infected towels and linen.

Treatment
Antibiotics

INFESTATIONS
Lice are small, greyish-white flat-backed insects. They feed on blood. Intense itching may develop a few weeks after infestation. With time, this can lead to lethargy, restlessness, depression and inattention at school or work. Secondary infection of the skin such as impetigo often results due to severe scratching. In endemic areas body lice can spread typhus and trench fever.

Head Lice
The following principles of control should always be adhered to:

- Definite diagnosis by detecting a living, moving louse. The only reliable method is by “detection combing”.
- Wear Gloves and apron.
- Start with the teeth of the detection comb touching the skin of the scalp at the top of the head. Draw the comb carefully towards the edge of the hair.
- Look carefully at the teeth of comb in a good light.
- Repeat this from the top of the head to the edge of the hair in all directions, working round the head.
- It takes approximately 10-15 minutes to search properly a single head of hair.
- If head lice are present they will be found on the teeth of the comb.
- Head lice are little insects with moving legs. They are often not much bigger than a pinhead but may be as large as a sesame seed.
- Clean the comb under a tap. A nail brush helps to do this.
- If no lice can be found after careful combing of the hair from the roots, there is no need to apply treatment.
- Close contacts of an infested person should be carefully checked, in particular, other members of the family, friends and anybody with whom there has been close contact.
- Once the infestation has been confirmed, treatment should be started.

Treatment
- The pharmacist should be contacted re: appropriate treatment
- Seek medical advice before treating children under the age of 6 months.
- The instructions within the packaging should be followed unless instructed otherwise by medical staff.
- To prevent lice emerging from any eggs that have survived treatment, a second application should take place after 7 days.
- The use of conditioner and fine combing after shampooing often proves effective in reducing head lice.

Public Lice Diagnosis:
- The patient complains of irritation. Eggs may be seen attached to pubic hair at the junction with the skin.
- The condition is typically transmitted by direct contact.
- The pharmacist should be contacted to advise on the preferred treatment.

Treatment
- The directions included with the treatment must be followed. The lotion should be applied to the infested and adjacent areas. In hairy individuals treatment should cover the thighs, trunk and axillary regions.
- A second application after 7 days is advisable. Sexual contacts need to be treated simultaneously. After treatment infested persons and sexual partners should use clean underclothing, pyjamas, sheets, towels etc.
- Contaminated articles should be machine-washed and heat dried or ironed.

Body Lice
- Discuss treatment with the pharmacist and follow directions.
- Wear gloves and apron when applying treatment.
- Infested clothing may be incinerated, tumble dried for 20 minutes in excess of 65°, boiled or dry-cleaned.
- Frequent change of clothing is the best method of getting rid of them. If clothes are left unworn for 5 days all lice die.

What Else Should be Done
- The entire family or others who have had contact with an infected person should be inspected and treated if necessary.
- For those with history of head lice the entire family's hair should be checked at least once a week. Hair should be brushed daily with a fine toothed comb.
- If signs of infestation are seen treatment should be started.

Infested patients on the Ward
- Isolation of infested patients is not necessary.
- Gloves and aprons are used when applying the lotion and when attending to patients with secondary skin conditions.
- Laundry used by patients with body lice is treated as infected linen.
- No special precautions are necessary for rubbish disposal.
- No terminal cleaning is necessary.
Scabies Treatment

- It is important to treat all close contacts. They can remain asymptomatic for as long as 8 weeks after infestation and so can spread the infection unknowingly.
- All the skin from the neck downward should have the treatment applied including between toes and fingers, under breasts and between buttocks. The lotion should be left on for 8-12 hours, after which a cool bath or shower should be taken. The itch may persist for up to 2 weeks or occasionally longer.
- Once treatment has commenced the person may return to work.
- Members of staff who suspect they have become infected with scabies should report to the Occupational Health Department or GP so that a diagnosis can be made and treatment can be arranged. If necessary referral to the Dermatology Department will be arranged.
- It is advisable to repeat the treatment after 1 week.

Treatment of Bedding and Clothing
- Bedding and clothing should be washed separately on a 65 degree plus wash

Types of Human Lice

Head Lice
- They are found on the hair and skin of the scalp, particularly behind the ears and back of the neck. They lay small, whitish yellow eggs near the root of the hair. Later, these eggs become white and are obvious (nits).
- They thrive well on clean hair.

Body Lice
- They live on clothing particularly underwear, seams and linings. They survive only if the same clothes are worn frequently or continually. Commonly found in cold countries or where people have only one set of clothing.

Pubic Lice
- They are found on coarse, widely spread hair of the pubic and peri-anal regions. In hairy persons they may also be found on thighs, trunk and, occasionally, on beards and moustaches.

Transmission

Head Lice
- By contact with an infested head. They live close to the scalp, as they need the warmth and food it provides. They cannot be spread by combs, hats, pillows, etc. Head lice can live for about 7 days and their eggs for about 10 days, away from a host.

Body Lice
- By close personal contact with infested clothing or bedding.

Pubic Lice
- Usually by contact, but not necessary sexual.
Scabies
- The causative agent of scabies is a mite, Sarcoptes scabiei, which invades the outer layers of the skin.
- The female burrows for a period of 30 days, laying 2-3 eggs per day. The larvae hatch in 3-5 days producing a new burrow. On average an infested person has approximately 12 mites.
- The classical sites of the infestation are between the fingers, wrists, axillary areas, female breasts (particularly the skin of the nipples), peri-umbilical area, penis, scrotum and buttocks. In infants the access of the body affected also include the face, scalp, palms and soles.
- Immunosuppression including HIV and AIDS, alcoholism and Downs’s syndrome can lead to massive infestation with extensive crusting of the skin. This is known as crusted or Norwegian scabies. Transmission is by direct contact, commonly within families, between children and sexual partners. The incubation period is from 6-8 weeks.
- Spread from bedding and clothing is unlikely. Spread of “Norwegian” scabies to staff and patients in hospital wards, especially geriatric wards has been reported.
- It is generally accepted that it is necessary to demonstrate at least the classical burrows, or mite and eggs.

Clinical Suspicion
- Severe itching.
- Typical distributions of symmetrical rush.
- Presence of itching in close contacts.

Burrow Ink Test
- Underside of ink pen rubbed over lesion is quickly wiped off leaving ink tracks in burrows as zigzag line.

Microscopy
- Scrapings are made of the infected areas. Before scrapings are made it is best to examine the skin surface with a hand lens so as to find the minute burrows of the mite. The material obtained should be placed on a microscopic slide, covered with another slide and sent to the laboratory.

Resistance
Resistance is due to a genetic change within the insect that is inherited. In order to avoid the development of resistance:
- Do not use lotions or shampoos to prevent infestations. Use them only for treatment.
- Always use lotion and not shampoos to ensure that there are no survivors to treatment.

GASTROENTERITIS VIRAL & FOOD BORNE
All cases of gastroenteritis should be regarded as infectious although many infective and non-infective agents cause diarrhoea and vomiting. A liquid stool is liable to contaminate hands and the environment causing the spread of faecal organisms.

Agents causing gastroenteritis may infect an individual without causing symptoms or be excreted for long periods after recovery from illness. Under these circumstances transmission is unlikely, provided that good personal hygiene is practised. Three or more infected persons associated in place and/or time constitutes an outbreak.
All cases of Gastroenteritis should be considered as infectious; therefore the patient should be nursed in a single room using standard precautions and transmission precautions as indicated by a risk assessment. The following should be adhered to:

Any client who has diarrhoea and vomiting the following should apply:

- Infection Control should be informed
- Isolate the patient
- A faecal specimen should be obtained and on the form the Doctor should indicate Norovirus or what they want the specimen tested for i.e. C. Difficile
- A toilet should be identified for all patients affected to utilise unless they have en-suite facilities
- Encourages fluids to prevent dehydration
- All staff when dealing with symptomatic patients especially when handling food should maintain standard precautions
- Staff should be utilising personal protective equipment (gloves, aprons, masks)
- Staff and patients should be more diligent with hand hygiene and alcohol hand gel should be used on visibly clean hands although hand washing is essential
- All staff to wash hands with soap and water before and after contact with an affected patient or environment, after removing gloves and apron
- Encourage patients to wash their hands especially when handling food, discourage relatives from sending food in
- Contaminated linen should be sent as infected linen
- Liaise with facilities department at earliest opportunity to ensure additional environmental decontamination of toilet areas etc.
- Consider use of antiemetics for patients with vomiting
- IR1 form needs to be completed
- Staff who are working on the affected ward are not to do a shift anywhere else in the Trust after working in the affected ward

- If 3 or more clients affected then the ward would be closed which would mean no patients leaving the ward, no visitors to the ward, minimal staff movement. All areas should be informed if this decision is made. The ward would have to be clear of symptoms for 48 hours prior to the ward re-opening, before re-opening the ward would have to undergo a terminal clean

- If staff have diarrhoea and vomiting, they should be send home immediately and advised to produce a faecal specimen to their GP, stating that they need the sample to be tested for Norovirus, if they contact the ward stating they have diarrhoea and vomiting they should take a faecal specimen to their GP stating that they need the sample to be tested for Norovirus.

In both instances they should be 48 hours symptom free before returning to work.

**Enteric Precautions**

Thorough hand washing with liquid soap and warm running water and drying hands properly is the most important factor in preventing the spread of gastrointestinal infections.

In hospital, soiled clothing and bed linen should be sent to the Laundry as infected linen.

**Disinfection**

Toilet seats, flush handles, wash hand basin taps and toilet door handles should be cleaned and disinfected daily or more often depending on how often they are used.
An approved chlorine solution should be used.

Bedpans should be washed in the bedpan washers only. Alternatively, disposable bedpans can be used and put in a macerator or disposed of in an orange infectious waste bag.

**LEGIONNAIRES DISEASE**

Legionnaires Disease was originally recognised in 1976 amongst members attending an American Legion Convention. It is a form of atypical pneumonia, which can vary in severity. The causative bacterium is *Legionella pneumophila*. It is commonly found in soil and water. Air conditioning systems and buildings with complicated pipe-work have been identified as sources of infection. The natural habitat of Legionellae is water, lakes, rivers in a temperature of 20°C – 45°C.

It is important that cooling towers and associated water systems are routinely inspected. A programme should be in place for control of scaling, corrosion and fouling.

Legionellosis is normally contracted by inhaling Legionellae bacteria. It may also be contracted by susceptible individuals following the ingestion of contaminated water. Person to person spread has not been documented. Legionnaires Disease in most cases is sporadic, but outbreaks have occurred in hospitals. About 200 cases are reported each year in England.

Initial symptoms include high fever, chills, headache and muscle pain. Patients may develop a dry cough and most have difficulty with breathing. About one third of patients with the infection develop diarrhoea or vomiting. About 50% become confused or delirious. Legionnaire’s disease can be treated effectively with the appropriate antibiotic.

**Incubation Period**

- The incubation period is between 2 - 10 days. Not everyone who has been exposed will develop the disease. Some individuals may only present with mild “flu-like” symptoms.
- The infection can be fatal in 12% of reported cases but can be higher in more susceptible groups of the population e.g. those over 45 years old, smokers, diabetics, people with cancer or chronic respiratory or kidney disease.
- Diagnosis is by a combination of tests. The organism may be cultured from sputum, bronchial washings or lung tissue. Blood tests can show the presence of antibodies and urine to measure specific antigens.

The symptoms of Legionnaire’s disease include:

- High fever
- Severe headache
- Shortness of breath
- Worsening cough
- Muscle aches and pains
- Some people may develop diarrhoea and vomiting, confusion, kidney or liver damage

A definitive diagnosis is obtained by taking a blood test for Legionellae antibodies. A chest x-ray may show shadowing in a lower lobe, but other cause for this should be
investigated.

Patients who develop Legionnaire’s disease will probably require treatment in an acute hospital and WLMHT’s policy on safeguarding patients in an acute hospital must be complied with.

If the patient is not transferred to an acute hospital; there is no need for isolation as there is no person-to-person spread of the disease.

On the Broadmoor site, the patient will be transferred to the Health Care Ward for treatment.

Any staff developing any of the above symptoms should contact The Occupational Health Department.

To prevent legionella bacteria building up in sufficient numbers to cause infection all water outlets i.e., showers, baths, sinks etc. should be flushed twice a week for 3 minutes in all clinical and non-clinical areas. If legionella bacteria is found in any water outlets from routine screening then these areas would immediately go onto daily flushing of all water outlets for 3 minutes until the system is clear.

**Outbreak Management**

Once a possible outbreak has been recognized, the ICD is the person primarily responsible for action within the Trust.

The Infection Control Team and the Estates Manager will take immediate steps to collect information from wards, including any water samples for testing. Depending on the result, the team will determine whether an outbreak is occurring, and if so, to provide an assessment of its severity and initiate some immediate measures.

If an outbreak exists the team will determine whether the outbreak is likely to be of limited extent, it is necessary to call an OCG, the outbreak is likely to be of a major importance and a MOOG should be convened, the outbreak seems to be confined to the Trust and whether there may be implications for the community.

All outbreaks must have a summary report written at the conclusion of the outbreak. This is to be sent to the Chief Executive, the CCDC, and Trust Infection Control Committee.
MENINGITIS
Meningitis is inflammation of the protective membranes covering the brain and spinal cord, known collectively as the meninges. The inflammation may be caused by infection with viruses, bacteria, or other microorganisms, and less commonly by certain drugs. Meningitis can be life-threatening because of the inflammation’s proximity to the brain and spinal cord; therefore the condition is classified as a medical emergency.

The usual incubation period is from 2-3 days but infection can occur up to 10 days after contact.
If there is any possibility that a patient is suffering from meningitis, they must immediately be referred to the nearest A&E department. Immediate treatment before transfer may be required after discussion with the A&E department.

The local Consultant in Communicable Disease Control at the local Health Protection Unit must be notified by telephone as soon as possible after known or presumptive diagnosis. Include the Consultant’s name, family name and address and information on any relevant contacts. Also whether contacts have received chemoprophylaxis. Written notification must follow in the usual way.

If patients are treated within the mental health Trust, they should be isolated until they have completed two days of treatment.

**Treatment of contacts**

Contacts of meningitis are defined as people who have been in close proximity with the unwell patient for at least 6 hours within the previous seven days. People sharing a room/bay are close contacts, but decisions must be made on other staff/patients that may be at risk. Most staff are not considered close contacts unless they have performed mouth-to-mouth resuscitation. The Health Protection Unit can help with this.

“Kissing contacts”, people who have kissed mouth to mouth, i.e. exchanged saliva, are also considered close contacts and will require prophylaxis.

Appropriate treatment for close contacts should be discussed with either the A&E department or the Health Protection Unit.

General signs of meningitis include: headache, irritability, fever and neck stiffness. Photophobia, dislike of lights, can also be present.

There is a sudden onset of fever and headache, which rapidly (within hours) progresses to drowsiness and signs of meningitis. A haemorrhagic skin rash, which does not disappear with pressure, is often present associated with an accompanying septicaemia.

Diagnosis is by confirmation of the presence of the organism in the blood, or CSF or the non-blanching skin rash. It is important to save an immediate serum specimen for DNA detection and typing.

**BACTERIAL MENINGITIS**

Incubation Period – 2-10 days

This is a medical emergency, delay between suspicion of the diagnosis and treatment can increase both morbidity and mortality. Despite antibiotic treatment, overall mortality is still around 7%.

Bacterial Meningitis can occur at any age but is most commonly seen in children and young adults. The organism can be carried asymptomatically in the nose and throat and is spread from person to person by respiratory droplets. Outbreaks of disease may occur in groups of young in close communities (e.g., boarding schools, colleges and higher education institutions).
Common Causative Organisms

Neisseria Meningitis (Meningococcus)
The most common case, peaks in young children and young adults. Cross infection in hospitals and infections of staff contacts rarely occur. There are several sub groups, group B & C are the commonest. The incidence of subgroup C has declined due to the introduction of meningococcal vaccine C.

Viral Meningitis
More common than bacterial meningitis, but less severe. Diagnosis should fittest exclude bacterial meningitis.

Although the viruses which cause these diseases tend to be highly infectious because they are shed in respiratory secretions and/or faeces, they rarely cause detectable cross infection resulting in meningitis. This is because close contacts will have a mild respiratory infection and will not have meningitis. Viruses can be transmitted by the faecal-oral, the respiratory route or by direct or close contact.

Common Organisms
Enterviruses
- Echoviruses which are most common in late summer. A different serotype predominated each year.
- Coxsackie virus

Other viruses such as
- Herpes simplex (particularly type 2)
- Varicella Zoster
- Mumps (often with encephalitis) can cause meningitis, sometimes alone but usually as part of the classic syndrome caused by each of these.

Neisseria Meningitis (Meningococcus)

Management
Start antibiotics immediately – even before organism is known.
Isolate for 24 hours
Visitors need not wear protective clothing, but should be instructed to wash their hands on leaving the room.
Consider prophylactic antibiotics for family contacts
Specimens required
Informed Infection Control
Inform the Consultant in Communicable Disease (CCDC)

Antibiotic Prophylaxis
Antibiotic prophylaxis may be advised for close family contacts of patients with meningococcal disease and siblings of those with Haemophilus Influenzae. Throat or per nasal swabs should be taken beforehand to establish whether carriage is present or not.
Antibiotic prophylaxis should be started without waiting for results
Antibiotic prophylaxis is not usually offered to staff looking after patients with meningitis. The risk of acquiring meningitis is negligible.
Chemoprophylaxis is now recommended for healthcare workers whose mouth or nose has been directly and heavily exposed to respiratory droplets/secretions from a case of meningococcal disease. Wearing a surgical face mask is encouraged to reduce the risk of exposure.
Viral Meningitis

**Management**
Isolate the patient
Inform Infection Control Team
Notify the Health Protection Agency (HPA)
Infection Control Team to inform CCDC and to ensure rapid diagnosis
Visitors need not wear protective clothing, but should be instructed to wash their hands on leaving the room
Specimens: faecal, throat swab, CSF to be sent to Microbiology for Virus isolation.

**MUMPS**
Mumps is an acute viral illness transmitted by direct contact with saliva or droplets from the saliva of an infected person. Humans are the only known host of the mumps virus. Mumps is a notifiable disease. Symptoms begin with a headache and fever for a day or two before the disease is characterised by swelling of the parotid glands which may be unilateral or bilateral. Complications of symptomatic mumps include oophoritis, orchitis, aseptic meningitis and deafness. Cases may have no salivary gland involvement but develop symptoms elsewhere (orchitis, meningitis). Despite common belief there is no firm evidence that orchitis causes sterility. Other symptoms may include pancreatitis, neuritis, arthritis, mastitis, nephritis, thyroiditis and pericarditis. Mumps was the commonest cause of viral meningitis in children prior to 1988, when vaccine was introduced.

**Transmission**
By direct contact with saliva.

**Incubation**
14 to 21 days.

**Infectivity**
For 5 days prior to parotid swelling and 12 to 25 days after exposure.

**Treatment**
No specific treatment for mumps, treatment given to alleviate symptoms.

**NOROVIRUS (ALSO KNOWN AS NORWALK VIRUS)**
Norovirus is the most common cause of infectious gastroenteritis, which often effects semi closed environments such as hospitals, nursing homes, schools and cruise ships. Norovirus has multiple genotypes and continually mutates and new genotypes emerge which creates problems for diagnosis. The reservoir is the gastrointestinal tract of man and person-to-person transmission is by the faecal oral route. There is also a risk of infection from virus in aerosols of projectile vomit. Environmental contamination, especially of toilets; gloves should be used by cleaners. Contaminated food and water, especially bivalve mollusc (e.g. mussels). Infectivity lasts for 48 hours after resolution of symptoms. The infective dose is extremely low.

**Transmission**
Aerosol spread and direct contact, faecal oral route.

**Incubation**
24 to 48 hours.

**Symptoms**
Sudden onset of projectile vomiting and/or watery diarrhoea, nausea, abdominal cramps, fever or headache. Lasts for 12-60 hours.

**Infectivity**
Highly infectious.

**Diagnosis**
Only specimens of watery diarrhoea to be sent to pathology lab and request for Norovirus testing. Only the earliest specimens obtained contain sufficient virus that is sensitive to testing, and a negative test does not exclude Norovirus infection.

**Precautions**
Follow Standard Precautions.
Wear gloves and apron.
Wash hands thoroughly.

**Environmental**
All curtains must be washed/dry and cleaned at the end of the outbreak. All carpets must be cleaned immediately after an episode of vomiting.

**RINGWORM**
A fungal skin infection sometimes referred to as ringworm. Typically a scaly, red-shaped ring on the skin. Commonly seen in children, but can also affect adults. Ringworm can be found on the scalp, body, groins, hands, feet and nails.

**Transmission**
From direct contact with infected human or animal.

**Treatment**
Anti fungal cream such as Clotrimazole or Miconazole.

**Prevention of Re-infection**
Treat the source.

**Rotavirus**
Rotaviruses are the most common viral causes of acute gastroenteritis.

**Transmission**
Person to person by faecal oral route and by environmental contamination.

**Incubation**
24 hours.

**Symptoms**
Abrupt onset of both diarrhoea and vomiting. Moderate to mild fever lasting 48 hours.

**Infectivity**
Highly infectious whilst vomiting.

**Precautions**
Follow Standard Precautions.
Wear gloves and aprons  
Wash hands thoroughly  
Environmental cleaning

**SALMONELLA**

There are approximately 2,200 different types of salmonella that infect animals and most of these are capable of causing salmonella in human. Poultry is the commonest source of infection.

Infection from salmonella causes nausea, vomiting and fever. Diarrhoea starts after 24 hours and is watery and may become a greenish colour if diarrhoea persists.

**Transmission**

By ingestion of inadequately cooked food, or food that has been contaminated by a carrier. Also by direct person to person spread by the faecal oral route.

**Incubation**

18 to 36 hours. Diarrhoea follows within 24 hours.

**Infectivity**

Until 48 hours after diarrhoea has stopped, but can reactivate. A person can be a carrier.

**Precautions**

Follow Standard Precautions. Wear gloves and apron when in contact with any body fluids, and when collecting specimens. Wash hands thoroughly.

**SEVERE ACUTE RESPIRATORY SYNDROME (SARS)**

Severe Acute Respiratory Syndrome (SARS) is a term used to describe a serious respiratory illness. Its main symptoms are high fever (>38° C) with dry cough, shortness of breath or difficulty in breathing. Changes in chest X-rays indicative of pneumonia also occur. There is evidence of international spread from Hong Kong, China (Beijing, Shanxi, Inner Mongolia), Canada (Toronto), Taiwan, Vietnam (Hanoi) and Singapore.

SARS is spread via respiratory droplets and by direct and indirect contact with infected secretions; it may also be spread via the airborne route from aerosolised respiratory secretions. It is therefore essential that close attention be paid to infection control procedures, which can successfully prevent the spread of SARS within the hospital setting.

The main symptoms of SARS are:

- High fever (greater than 38 C or 100.4 F), combined with a dry cough
- Shortness of breath, or breathing difficulties

With other possible symptoms including:

- Headache
- Muscular stiffness
- Loss of appetite
- Malaise
- Confusion
- Rash
- Diarrhoea.

SARS seems to be spread through close contact with an infected person, with the incubation period estimated to be between two and seven days.
A patient suspected to be suffering from SARS should where possible be transferred to a specialist unit using all infection control precautions.

In A & E any patient who presents with a fever and has recently travelled abroad should be triaged in an assessment room. If the patient is found to be at risk of having been exposed to SARS they should be treated in a room with negative pressure ventilation.

If admitted to Ealing Hospital the patient must be cared for in a room with negative pressure ventilation on 8 south. (Negative pressure rooms on other wards are not acceptable)

**Protective Clothing**

- All staff carrying out care or who are in the patient’s room during aerosol generating procedures must wear an appropriate mask. Care must be taken to ensure that the mask fits the face adequately
- Non latex gloves which give viral protection should be worn and should have a long tight fitting cuff
- A fluid-repellent, long sleeved disposable gown should be worn
- Goggles or a visor must be worn as glasses do not provide adequate protection against droplets, sprays and splashes

**Wards & Departments**

- Standard Infection Control Precautions (Standard Precautions) must be used routinely by all healthcare practitioners in the care of all patients all the time.
- The patient must be cared for in a room, which has negative pressure ventilation, the door and windows of the room must be kept closed
- Staff must put on gloves, PFR95 face mask (Tecnol TB mask), eye protection and a gown before entering the patients room
- The number of staff entering the patient’s room must be kept to a minimum
- The names of any staff entering the room or having contact with the patient must be documented and retained
- The patient must not leave the room unless absolutely necessary
- PPE must be taken off and discarded into an orange infectious waste bag prior to leaving the patients room
- Hands must be washed prior to leaving the patients room
- All pathology samples must be labelled SARS, High Risk, transported as high risk and processed at containment level 3 in the laboratory

**Hand Hygiene**

Hand washing is the most important and economical means of preventing the spread of infection

- Hand hygiene is essential before and after all patient contact, after removal of protective clothing and after cleaning of the environment
- Alcohol hand rub may be used if hands are visibly clean
- Hand and wrist jewellery must not be worn (a plain band ring may be worn)

**Equipment**

- Dedicated equipment should be used in the patient’s room
- Single use equipment should be disposed of inside the room
• Multi patient use equipment should be avoided
• Ventilators must be protected with filters and closed suction used

**Linen/Waste**
• All used linen must be bagged inside the room in a red alginate bag and then a red linen bag when double bagged the outer bag must not touch the floor
• All waste must be disposed of as infectious waste

**Environmental Cleaning**
• The patient’s room must be “barrier” cleaned using a hypochlorite solution.
• The room or area in which a patient has been should be terminally (barrier) cleaned using hypochlorite solution when the patient has left it/is discharged

**Visitors**
• Anyone who is a contact of the patient and is symptomatic should stay at home and seek advice from their GP or NHS direct; they must not visit the hospital
• Visitors must be kept to an absolute minimum and must wear Personal Protective Equipment
• A list of visitors must be kept

**Transport of patients**
• The movement of the patient should be limited.
• The Infection Control Team must be consulted for advice prior to movement if is essential
• Standard precautions must be taken; the patient must wear a mask

**Action to be taken if a patient dies**
• Standard precautions must be continued after a patient has died.
• A cadaver (body) bag must be used where a patient is suspected or known to have been suffering from SARS.
• The mortuary must be contacted prior to transfer of the body

**Occupational Health**
• Any staff that has concerns over their own health should consult the Occupational Health Department who will give guidance on any isolation precautions
• Any staff that have visited areas highlighted in the introduction and have symptoms should contact the Occupational Health Department

**Staff**
• Staff must comply with infection control precautions as detailed above
• A record of staff caring for a patient with SARS must be kept
• The use of Bank staff should be avoided where possible
• Staff who have cared for a patient with SARS should avoid working in other areas of the hospital for 7 days following exposure (incubation period of SARS is 2-7 days)

**TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHY**
Transmissible Spongiform Encephalopathies (TSEs) are a group of diseases that include Creutzfeldt-Jacob disease (CJD), Gerstmann-Sträussler-Scheinker Syndrome (GSS), kuru and fatal familial insomnia. They are all transmitted by an “unconventional” infectious agent termed prions. Prions are smaller than viruses and can be very difficult to detect or
remove. The only way to ensure killing of the prion is to raise the temperature of the item to 1000°C

- There are a number of body fluids and substances that have been linked with the transfer of TSEs and these include: neural tissue including brain, spinal cord and their coverings, appendix, cornea, tonsils and adenoids, pituitary hormones and, recently, blood transfusions.

- Procedures Involving contact with any of the high risk substances are mainly going to be undertaken within the acute hospital setting.

**Signs and Symptoms**

- The incubation period for TSEs can be long, possibly 10 years or more. TSEs have an insidious onset with confusion, progressive dementia and jerking of limbs. There can also be a range of other neurological signs. As the disease progresses, the symptoms gradually become worse and eventually fatal.

- Definitive diagnosis of TSE is performed post-mortem as it is impossible to grow the prion with the laboratory. Diagnosis is more often only provisional before this time.

**Nursing the patient with TSE**

- The methods of transmission are mainly surgical and not performed within the mental health setting, with the possible exception of blood transfusions.

- There is no need to isolate patients who have a provisional diagnosis of TSE.

- As there is a risk of transmission through blood, staff should be aware and comply with all Standard Infection Control Precautions, ensuring that they reduce the risk of contact with blood and body fluids.

- If, for any reason, surgical instruments are used on a patient who may have a TSE and come into contact with risk tissues the sterile supplies department should be contacted and informed of the situation. The instruments will need to be labelled as per the directions from the sterile supplies department.

### 14.1 OTHER RELATED PROCEDURES

**PETS**

Pets can often enhance the quality of life for the ageing and the ill. Pet therapy has been advocated as being psychologically beneficial to long term hospitalised patients. However, it carries with it cross-infection risks. Individual instances of transmission of illness to humans, from animals are relatively rare but if this does occur, there is considerable potential to cause significant morbidity and mortality. This is particularly true of transmission of illness from domesticated dogs and cats. Due to the nature of the patients in mental health, a risk assessment must be performed before pets are brought into the environment.

**Wards**

**Fish**

Under these guidelines fish will not be allowed. Patients who currently have fish as pets
will not have them removed, when they die however, replacement will not be permitted. There are significant risks if proper control measures are not adhered to. Tropical fish may carry a form of TB. The tank must be cleaned every few months according to manufacturer’s instructions and hands washed thoroughly afterwards.

**Birds**
Under these guidelines birds will not be allowed. Patients who currently have birds as pets will not have them removed, when they die however, replacement will not be permitted. There is a risk of chlamydial infection causing psittacosis and pneumonia. This may be associated with sick or healthy looking pet birds i.e. parakeets, parrots, pigeons, turkey and duck farms. These birds can be carriers, and occasionally shed the infectious agent, intermittently. Infection is usually acquired by inhaling the agent from desiccated droppings and secretions of infected birds in an enclosed space. Household birds are a frequent source. The cage should be cleaned out in the sluice at least twice weekly and more frequently if required. An apron and gloves should be worn while cleaning and hands washed thoroughly afterwards.

**Visiting Dogs, Cats, Rabbits, Guinea Pigs**
These animals carry potentially pathogenic organisms in their saliva and stools as part of their normal flora. **SALMONELLA** of numerous types are pathogenic for both animals and humans. However, regular health checks by a vet and vaccination are easier with these species so that visits to the ward are permissible.

**Wild Animals, Hedgehogs, Farm Animals**
We would advise against these animals visiting the ward because of the likelihood of colonisation with enteric pathogens, such as **CAMPYLOBACTER causing campylobacter enteritis**. And there are also behavioural issues such as biting and scratching. In addition, they are unlikely to have been vaccinated.

**General Principles**
- Animals should be clean, well groomed, and free of parasites and in good health.
- Exclude any animals, which are aggressive or have tendency to bite.
- Sick animals should not be allowed in clinical areas of the hospital.
- Animals must be supervised at all times and suitably contained e.g. dogs should be kept on a leash. Smaller animals must be caged but may be taken out for supervised handling.
- Animals must be appropriately immunised and have regular health checks from a qualified vet. Staff should check with the individuals responsible for the animals that this is the case.
- Staff must promptly wash their hands after contact with animals. Patients should be offered a bowl of water and towel if unable to use a hand wash sink.
- Patients who are severely immunocompromised should not come into contact with animals.
- Patients with wounds may have contact with animals but their wounds must be completely and securely covered.
- Staff should check that individual patients do not have allergies to particular animals before visits.
- Animals must not be sat on beds. If smaller animals are to be placed on patients’ laps etc., they must be sat on a designated covering e.g. a towel. This must not be passed from patient to patient, but should be discarded or laundered, as appropriate.
• Animals must never be permitted in kitchens, treatment areas, etc. Ideally they should only go into the day room, if there is one available. Fish tanks may be located in bays, if desired, but bird cages must be in the day room.
• Animals should not visit patients with resistant organisms such as MRSA as they may become carriers themselves.
• If fouling of the floor occurs, faeces should be disposed of in an orange infectious waste bag and urine should be soaked up with paper towels, which should be discarded in an orange infectious waste bag. The floor surface should then be wiped with detergent and hot water and dried. Gloves and aprons should be worn. Carpets should be steam cleaned.

Litter Box Care
• Apron and gloves should always be worn when cleaning the litter box.
• A disposable liner should be fitted to the box for easy cleaning.
• Litter should be changed daily
• Litter should be sealed in a plastic bag and disposed of in accordance with local guidance.
• The litter should not be sited near food preparation, storage or eating areas.
• The litter box should be disinfected weekly by filling with boiling water which is allowed to stand for at least 5 minutes in order to kill toxoplasmosis eggs and other germs.
• Good general hygiene and hand washing are essential for risk reduction.

Opening, Transfer or Closure of wards
This guidance ensures that all infection control measures have been appropriately addressed prior to opening, transfer or following closure of wards and departments. The Infection Control Team should be informed of any closures, transfers or opening in advance in order that advice may be given on issues such as water safety, dust control, cleaning requirements and safe patient placement in relation to infection risks.

Responsibilities
The Infection Control Team (ICT) will ensure that any potential infection control problems have been appropriately addressed.

Domestic and Estates departments will address specific issues relevant to their departments but they also have a responsibility to inform the ICT of any changes associated with upgrading and refurbishment and to comply with any infection control advice given.

The Health and Safety Advisor ensures that aspects of health and safety are addressed with upgrading and refurbishment and to comply with any infection control advice given.

The Matron/Ward Manager notes advice given by the ICT, ensures that the action recommended is taken and infection control advice is complied with.

Closure or Emptying of a Ward
Following the closure / emptying of a ward, an inspection should be carried out to ensure that no residual risks remain in the environment. The Matron/Ward Manager, an Infection Control Nurse, a Domestic Manager and an Estates Department representative should carry out the inspection.

The Matron/Ward Manager will ensure that the inspection is carried out and any recommendations complied with.
It is important that when a ward is closed special attention is taken to the security aspects so that there can be no unauthorised access to the ward.

There should be regular monitoring of the water systems whilst the ward is closed to monitor the levels of *Legionella* in the water supply.

**Opening or Transfer of a Ward**

Prior to the opening/re-opening of a ward an inspection should be carried out to ensure any risks in the environment are addressed prior to occupation by patients. The Matron/Ward Manager, an Infection Control Nurse, a Domestic Manager and an Estates Department representative should carry out the inspection. The Matron/Ward Manager will ensure that the inspection is carried out and any recommendations complied with.

**Handling and Transportation of Specimens**

*Introduction*

Specimen collection, transportation and examination can create risks to staff involved in these procedures.

There are also legal requirements for the packaging of specimens and the marking and labelling of containers used to convey specimens when moved on the roads to ensure compliance with Dangerous Goods carriage regulations and protect all those involved in the transport chain e.g. drivers, unpackers.

Note that the responsibility for this correct packaging, marking and labelling lies with the consignor (sender) of the specimens therefore, even if the package is being supplied to the West London Mental Health NHS Trust by an acute NHS Trust, the West London Mental Health Trust must ensure that packages are correctly marked and labelled.

This legislation only applies to the movement of specimens when carried in motorised vehicles on public roads, it does not, therefore, apply, when specimens are moved on foot between the Trust’s site and the adjacent NHS Acute Trust site where the two Trusts are co-located on the same site.

**Legislation**

*The Health and Safety at Work Act 1974 and the Management of Health and Safety at Work Regulations 1999*

Puts a requirement of law on contractual services and the users of their services that “all employees have a legal duty to take care of themselves and others, to work safely, follow guidelines and ensure that others are not exposed to health and safety risks”.

“Employers and employees are accountable under this act to ensure the work place is free from hazard, and it imposes specific obligations to ensure the microbiological safety of the environment”.

*Control of Substances Hazardous to Health Regulations 2002*

“COSHH regulations set out the duty of employers to manage the risk of exposure to hazardous substances which are essential to prevent risks identified from potential sources of harm. This covers exposure to pathogenic microorganisms”.

Staff Collecting Samples

- Standard Infection Control Precautions must be adhered to at all times, appropriate protective clothing must be worn.
- Always use the correct container ensuring that it is closed properly, taking care not to contaminate the outside of the container.
- Label the container correctly with the patient's name, hospital number and/or date of birth.
- Place the container in a designated leak proof plastic bag. Insert suitable absorbent packaging. Sufficient absorbent material must be placed to ensure that, if the primary container is broken, the material will absorb all of the resulting spillage. This absorbent is not required where moving solid samples.

Examples of absorbent material that can be used:

- Paper towel
- Cellulose wadding
- Super-absorbent packaging pads

- Ensure the request form is filled in correctly the patient’s name, hospital number and/or date of birth, ward and consultant and placed with the specimen in the side pocket of the leak proof plastic bag.
- If the specimen is not adequately identified the specimen will not be processed.

Transporting Specimens

- All specimens must be transported in the special trays or boxes provided, with minimal handling. The trays or boxes must be disinfected each week or when contaminated.
- All specimens transported outside the trust should be sent through the pathology department to ensure adequate packaging.
- Specimen transport outside the hospital i.e. van service or taxi, must be transported in special secure transport boxes with fastening lids. Specimen bags containing the specimen tube must be secured in outer packaging transport boxes with suitable cushioning material.
- These transport boxes must be correctly marked and labelled as shown below. The transport boxes do not have to have met UN performance testing specifications. The Trust can use any relevant rigid container provided the Trust is confident that it is suitable for containing and protecting the specimens in the event of the container being dropped or similar (known as “self-certification”). The Trust may choose to use UN approved transport boxes which have met drop test standards of ADR 2015, although it does not have to use such drop tested packaging. UN approved packaging might include the red Daniel’s Transport boxes or the green Versapak bags although, as stated, there is no requirement to use UN approved packaging provided the outer package is correctly marked and labelled (as shown below).
- The box/container must be correctly marked and labelled to comply with ADR 2015 as follows: “UN3373” warning diamond contained within a diamond shape with minimum dimensions of 50 mm by 50 mm; the width of the line shall be at least 2 mm and the letters at least 6 mm high. The Proper shipping name “Biological Substance, Category B” must be marked adjacent to the diamond shaped mark in letters at least 6 mm high, as shown below.
BIOLOGICAL SUBSTANCE

- These specialist boxes with the above markings and labels do NOT have to be used where specimens are transported on foot or by bicycle on public roads (although health and safety for Trust staff and the wider public must be considered).
- These specialist boxes with the above markings and labelling do NOT have to be used where specimens are transported between a West London Mental Health NHS Trust site and an adjacent acute Trust site where the two Trust are co-located on the same site (although health and safety for Trust staff and the wider public must be considered).
- Moreover, patient confidentiality issues must be considered when transporting specimens on foot between West London Mental Health NHS Trust sites and adjacent Acute NHS Trust sites and clear bags with specimen tubes in might not be suitable to ensure patient confidentiality. Each box must have a warning label informing people that unauthorised personnel must not open the package, and giving an emergency contact number.
- These boxes must also be disinfected each week and when contaminated.
- If specimens are to be posted, packaging requirements must be adhered to including the use of absorbent materials for liquid specimens and the drop test, certificate of conformity, marking and labelling requirements as detailed above. These requirements are outlined in the Post Office Guide, which can be obtained from the Post Office.

Definitions of Hazard Categories of Specimens

Category A
An infectious substance which is carried in a form that, when exposure to it occurs, is capable of causing permanent disability, life threatening or fatal disease in otherwise healthy humans. Appendix 2 includes a list of Category A micro-organisms. It includes cultures of various micro-organisms together with micro-organisms causing Viral Haemorrhagic Fevers (VHF) e.g. Ebola, Marburg and Lassa Fever

Category B
An infectious substance not included within the Category A list. Category B infectious substances would include HIV, Hepatitis, E.Coli, Salmonella types, MRSA etc. and includes any micro-organisms commonly identified and transported for diagnosis by the Trust

Given the Trust’s patient group, it is highly unlikely that Trust staff will be taking Category A diagnostic specimens from their sites. If a patient was received or undergoing treatment at a Trust site and exhibited signs of a Category A infection, it would be likely that they would be taken to a suitable Acute NHS Trust hospital for treatment. As such the packaging, marking, labelling and consignment procedures for Category A specimens are not covered in this policy. If Trust staff were taking and consigning such specimens there are additional notification and security requirements that must be met. The Trust’s DGSA can provide further information and support.

Leaking Specimens
- Advice must be sought immediately from either the Infection Control Team or the Head of the Laboratory Department on clearing of the spillage, whilst ensuring the area is kept clear.
• Specimens which are leaking when received in the laboratory will not be processed.

Isolation

In the past infection control precautions focused on measures intended to prevent the spread of infection from patients known to have infectious diseases.

A range of infection control precautions to be used routinely in the care of all patients, whether they were known to have an infection or not was first recommended in the 1980’s. This approach, known as Universal Precautions, was developed in response to the emerging HIV epidemic and the problem of identifying patients who were infected. Universal Precautions were originally applied to all body fluids. Faeces, urine and sputum were later excluded unless they contained visible blood.

The introduction of Universal Precautions to protect against blood-borne viruses stimulated interest in the use of routine precautions for use to protect against all infections that were transmitted in body fluids and in the prevention of Hospital-acquired Infections. The system of body substance isolation was proposed; this advocated the use of Universal Precautions with all moist body substances in an effort to prevent the transmission of hospital pathogens.

The value of routine infection control precaution in protecting healthcare workers from blood-borne viruses and in minimising the risk of transmission of other pathogens is now recognised. Standard precautions recommended for use when caring for all patients combine Universal Precautions and body substance isolation and were described in the Guidelines for isolation precautions in hospitals (Garner, 1996) in the USA and the Epic guidelines (Pratt and others, 2001) in the U.K.

Guidelines on standard infection control practice

Standard infection control practice consists of standard precautions and transmission precautions.

Standard Infection Control Precautions are a single set of precautions to be used routinely by all healthcare practitioners in the care of all patients all the time.

Standard precautions are used where there is contact or possible contact with:

- Blood
- Body fluids
- Secretions and excretions except sweat
- Non intact skin
- Mucous membranes

Transmission precautions are additional precautions which are only required for a smaller group of patients known or suspected to be colonised or infected with high risk organisms spread through airborne-droplet, e.g. tuberculosis, and contact routes, e.g. MRSA, in hospital. These are used, in addition to standard precautions, following a risk assessment. Transmission precautions may include:

- A single room
- Restriction of patient movement
- Use of special waste disposal methods
- More frequent use of appropriate protective clothing
- Education of patients, visitors and staff to ensure required precautions are taken.
Standard precautions

Hand washing
Hand washing is the single most important and economic means of preventing the spread of infection; it must be performed between each patient contact, after removing gloves and after contact with body fluids.

Alcohol hand rub may be used in place of hand washing when hands are not visibly contaminated.

Skin should be intact; any breaks must be covered with waterproof dressing.

Personal Protective Equipment (PPE)
The wearing of protective clothing by both staff and visitors is recommended to, protect the skin and mucous membranes of the carer from exposure to body fluids and prevent contamination of clothing thereby reducing the opportunity for the spread of organisms from patients or fomites to other patients and their environments.

Gloves must be worn when contact with moist body fluid is expected and should be discarded after a procedure and between patients. Hands must always be washed after gloves are discarded to guard against contamination from unrecognised punctures and to remove any glove residue from the hands.

Aprons should be worn when contamination of clothing with moist body fluids may occur. As most contamination occurs on the front of the body an apron is usually sufficient, where gross contamination may occur (e.g. operating theatre) a water-repellent gown should be worn.

Masks and eye protection should be worn where there is a risk of splashing of body fluids into the face and eyes. Staff should wear close-fitting masks when caring for patients suspected or known to be suffering from pulmonary tuberculosis.

PPE should be removed before leaving the patient’s environment and hands then washed.

Safe Handling of Sharps

Syringes and needles must be discarded as a unit and not separated.

Do not re-sheath needles.

Do not carry used sharps by hand or pass on to another person.

Discard sharps immediately after use into a Sharps container

Sharps containers should be available at the point of use, should be located in a safe position, must not be located on the floor and should be fully closed and locked when ¾ full.

Sharps containers must be CE marked and conform to BS7320 and UN3291.

Safe Disposal of Infectious Waste

Waste from hospitals, which may be toxic, hazardous or infectious, is described as infectious waste. Infectious waste must be properly segregated at the point of production and can go to alternative treatments such as autoclaving then landfill.

Infectious waste should be placed in UN approved orange plastic bag designated for infectious waste and then transferred by either clinical staff (Broadmoor) or porters.
(London end of the Trust) to the yellow clinical waste carts stored in refuse cupboards, or compounds. All carts must be kept locked and held in a secure area or otherwise chained or attached to trust buildings to prevent access and loss of the waste.

Bags must be sealed and tagged at the point of generation.

Sealed sharps bins should be placed in the Refuse cupboards at Broadmoor and at the London end of the Trust staff contact the porters for collection.

Safe Disposal of Linen
Soiled linen should be placed in a white plastic bag.

Infected linen must be double bagged in a soluble red alginate plastic bag. It must then be kept separate from the infectious waste.

Decontamination
Any equipment used must be decontaminated between patients; the method used should be sufficient to prevent the transmission of any pathogens.

Treatment of spills of blood or body fluids
Any spillage of blood or body fluid should be made safe prior to cleaning.

Protective clothing must be worn and the spill should be treated with chlorine releasing granules or, if large, soaked up using paper towels then the area cleaned with chlorine-releasing agent.

Crockery and Cutlery
No special precautions are required for crockery and cutlery and disposable equipment is unnecessary.

Cleaning should be carried out in a dishwasher, if unavailable thorough cleaning in hot (80ºC) water and detergent, rinsing under hot water then thorough drying with paper towels should be undertaken.

Environmental Cleaning
(See ICP16 Hospital Cleanliness Policy)

Transmission precautions (previously isolation)
These precautions are in addition to standard infection control precautions.

- The patient should be risk assessed and precautions used according to the route of transmission of any infection present, or thought to be present.
- Isolation in a single room is one of the useful approaches to prevent or minimize the risk of transmission of infection between patients. It is important to remember that rather than the patient, it is the micro-organism that requires isolation.
- Infection may be transmitted via contact with the patient or their environment, respiratory droplets or may be airborne.

Contact
Touching the patient’s skin, lesions, secretions etc may transmit infection. It is also possible that some micro-organisms survive in the immediate environment and be transmitted by contact with surfaces or equipment. e.g. MRSA, clostridium difficile, herpes simplex.
A single room is preferable but not essential.
Limit patient movement.

Gloves and aprons to be worn when in contact with infected/potentially infected material from patients or their immediate environment.
Hand wash on leaving room / after patient contact.

**Respiratory droplet**
Infections transmitted by contact with respiratory secretions including coughing and sneezing. Particles do not travel far or remain airborne; many of these infections are also spread by direct contact with infective material. E.g. mumps, whooping cough, meningococcal meningitis.

Single room.
Limit patient movement.
Gloves and aprons to be worn when in contact with infected/potentially infected material.
Hand wash on leaving room / after patient contact.

**Airborne**
Infection transmitted by inhalation of infected micro-organisms or droplet nuclei. These minute particles are expelled from the respiratory tract and may remain suspended in the air for some time. E.g. pulmonary tuberculosis, measles, chicken pox.

Single room with negative pressure ventilation can be used for TB patients.
Limit patient movement

Masks for TB patients.
Gloves and aprons to be worn when in contact with infected/potentially infected material.
Hand wash on leaving room / after patient contact.

**Crockery and Cutlery**
No special precautions are required for crockery and cutlery and disposable equipment is unnecessary.
Cleaning should be carried out in a dishwasher, if unavailable thorough cleaning in hot water and detergent, rinsing under water at 80°C then thorough drying with paper towels should be carried out.

**Environmental Cleaning**
An approved disinfectant must be used for routine daily cleaning and to clean a room on discharge of an infected patient.

**Patient Placement**
A single room is important when there is a risk of transmission where the patient:

- has poor hygiene habits
- contaminates the environment
- cannot assist in maintaining infection control precautions e.g. confused patients, children
- is suspected of carrying or has a highly transmissible micro-organism

The Infection Control Team will assist in any risk assessment on the need for single room isolation.

Patients infected with the same micro-organism may be placed together in the same bay (cohort nursed). It is essential that both health care staff and visitors maintain strict standard infection control precautions.

A single room with appropriate air handling/ventilation facilities may be necessary where there is a risk of transmission by the airborne route e.g. TB.

**Transport of Infected Patients**

The movement of patients who are infected with virulent or epidemiologically micro-organisms should be limited. When transport of the patient is necessary,

- appropriate barriers should be used to reduce the risk of transmission e.g. masks, impervious dressings.
- staff in the area to which the patient is taken must be informed that the patient requires transmission precautions in advance.
- patient should be made aware of ways in which they can assist in the reduction of the risk of transmission to others.

**Action to be taken when a patient dies**

Standard / transmission precautions must be continued after a patient has died.

A cadaver (body) bag must be used where a patient is suspected or has been suffering from a communicable, notifiable disease or when excess leakage of body fluids has or may occur.

**15.0 Training**

Infection Prevention and Control, forms part of the Trusts mandatory training programme and as such is included in induction and ongoing training programmes generated by the Trusts appraisal based Training Needs Analysis.

**16.0 Monitoring**

Please refer to the Monitoring plan appended at the end of this policy.

**17.0 Fraud statement (if required)**

No fraud statement is required for this policy.
18.0 References

A code of practice: The control of Legionellae by the safe operation of cooling systems
British Association for Chemical Specialities 1989 ISBN 0 9514950 0 3 (Some sections
update in 1995)

A guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations

Advisory Committee on Dangerous Pathogens. (2004) Categorisation of biological agents
according to hazard and categories of containment HSE

Advisory Committee on Dangerous Pathogens. (2003), Infection at work: Controlling the
Risk, HSE

British Standard Code of Practice for preservation of timber BS 5589: 1989

American Journal of Infection Control: 24, 24-52

Consulting employees on health and safety. A guide to the law INDG232 1996 HSE Books

Consensus statement on Diagnosis, investigation, treatment and prevention of acute

Control of Meningococcal Disease: guidance for Microbiologists in communicable disease
report vol 5, review No. 13, 8 Dec 1995.

Both of the above Codes of Practice give practical guidance on the day-to-day
management of evaporative cooling systems

Viewer&ArticleID=471

http://www.dh.gov.uk/en/Managingyourorganisation/Leadershipandmanagement/Healthcare
eenvironment/NHSDecontamination Programme/indexhtm

Health and Safety Executive (2002), Control of Substances Hazardous to Health
Regulations SI 2002/2677, Stationary Office

Health and safety in residential care homes HSG104 1993 HSE Books ISBN 0 7176
06732

Health and Social Care Act (2008) Code of Practice for the NHS on the prevention and
control of healthcare associated infections and related guidance
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuid
ance/DH_081927
Health Technical Memorandum 2040. The control of Legionellae in health care premises: A Code of Practice 1993 NHS Estates consists of 5 parts. This code of practice gives day-to-day guidance on the management of hot and cold water systems and other systems where there is a risk of proliferation of Legionellae bacteria. It also deals with engineering and design aspects of these systems.

Health Technical Memorandum 2027 Hot and cold water supply, storage and mains services 1995 NHS Estates, consists of 4 parts.


Minimising the risk of Legionnaires disease TM1 3 2000 The Chartered Institution of Building Services Engineers ISBN 1 903287 02 2


Safe hot water and surface temperatures NHS Estates 1998 ISBN 0 1132 21584

Selecting a Health and Safety Consultancy INDG1 33L 1992 HSE Books

Specification for the design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtitages BS 6700: 1997

Successful health and safety management HSG65 1997 HSE Books ISBN 0 7176 1267 7


The Carriage of Dangerous Goods and use of Transportable Pressure Equipment Regulations 2009 (CDG2009) and (Amendment) Regulations 2011 (CDG2011)
The control of Legionellosis: A recommended code of conduct for service providers. Water Management Society/British Association for Chemical Specialities, 1999


The World Health Organisation. www.who.int/csr/sars

The selection, use and maintenance of respiratory protective equipment (2nd edition) HSG53 1998 ISBN 0 7176 1537 5


Water fittings and materials directory Produced by the Water Regulations Advisory Service and published by the Water Research Centre ISBN 1 8726 9956

Water Supply Regulations Guide published by and available from Water Research Centre, Oakdale Gwent. This guide comprises the Regulations, the DETR guidance on the regulations and supplementary guidance by the Water Regulations Advisory Scheme


19.0 Supporting documents

The Health and Social Care Act 2008

20.0 Glossary of terms / acronyms

DIPC  Director of Infection Prevention and Control
ICT  Infection Control Team
TICG  Trust Infection Control Group
PHE  Public Health England
DH  Department of Health
CSU  Clinical Service Unit
IPCT  Infection Prevention control Team
NHSLA  National Health Service Litigation Authority
IC  Infection Control
IPC  Infection Prevention and Control
CCG  Clinical Commissioning Group
21.0 Appendices

Appendix 1 – Monitoring Template
Appendix 2 - Indicative List of Category A Infectious Micro-organisms ADR 2015
APPENDIX 1 Indicative List of Category A Infectious Micro-organisms ADR 2015

Bacillus anthracis (cultures only)
Brucella abortus (cultures only)
Brucella melitensis (cultures only)
Brucella suis (cultures only)
Burkholderia mallei - Pseudomonas mallei – Glanders (cultures only)
Burkholderia pseudomallei – Pseudomonas pseudomallei (cultures only)
Chlamydia psittaci - avian strains (cultures only)
Clostridium botulinum (cultures only)
Coccidioides immitis (cultures only)
Coxiella burnetii (cultures only)
Crimean-Congo haemorrhagic fever virus
Dengue virus (cultures only)
Eastern equine encephalitis virus (cultures only)
Escherichia coli, verotoxigenic (cultures only) a
Ebola virus
Flexal virus
Francisella tularensis (cultures only)
Guanarito virus
Hantaan virus
Hantavirus causing haemorrhagic fever with renal syndrome
Hendra virus
Hepatitis B virus (cultures only)
Herpes B virus (cultures only)
Human immunodeficiency virus (cultures only)
Highly pathogenic avian influenza virus (cultures only)
Japanese Encephalitis virus (cultures only)
Junin virus
Kyasanur Forest disease virus
Lassa virus
Machupo virus
Marburg virus
Monkeypox virus
Mycobacterium tuberculosis (cultures only) a
Nipah virus
Omsk haemorrhagic fever virus
Poliovirus (cultures only)
Rabies virus (cultures only)
Rickettsia prowazekii (cultures only)
Rickettsia rickettsii (cultures only)
Rift Valley fever virus (cultures only)
Russian spring-summer encephalitis virus (cultures only)
Sabia virus
Shigella dysenteriae type 1 (cultures only) a
Tick-borne encephalitis virus (cultures only)
Variola virus
Venezuelan equine encephalitis virus (cultures only)
West Nile virus (cultures only)
Yellow fever virus (cultures only)
Yersinia pestis (cultures only)

Nevertheless, when the cultures are intended for diagnostic or clinical purposes, they may be classified as infectious substances of Category B