Lincolnshire Partnership
NHS Foundation Trust

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Lincolnshire Partnership NHS Foundation Trust (LPFT)

Title of Policy

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Author:	**Infection Prevention and Control Nurse Specialist**
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Committee, Group or Individual Monitoring the Document	**Patient Safety and Experience Committee**
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This policy details safe and effective decontamination methods for patient equipment to minimise the risk of transmission of infection.

LINCOLNSHIRE PARTNERSHIP NHS TRUST

DECONTAMINATION OF PATIENT EQUIPMENT

ISSUE 2

CONTENTS

1.0 INTRODUCTION

1.1 It has been demonstrated that patient equipment may serve as a reservoir for the transmission of infectious agents to susceptible hosts.

1.2 In order to ensure safe systems of work and to prevent transmission of infectious agents, it is essential that the decontamination of patient equipment is carried out in accordance with the requirements of, The Health and Safety at Work Act (1974) and The Health and Social Care Act 2008 Code of Practice on the prevention and control of infections (2015) particularly Criterion 2. This states that a registered provider should:

"Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections."

1.3 Guidance for compliance with Criterion 2 also states that a registered provider should ensure that:

"*There are effective arrangements for the appropriate cleaning of equipment that is used at the point of care, for example hoists, beds and commodes – these should be incorporated within appropriate cleaning, disinfection and decontamination policies"*

2.0 POLICY PRINCIPLES

2.1 The purpose of this document is to provide guidance on effective decontamination processes for reusable patient equipment within Lincolnshire Partnership NHS Trust (LPFT).

2.2 The aim of the policy / procedure is to:

- Identify the correct methods of cleaning and decontamination of patient equipment
- Reduce the risk of cross infection by preventing the transfer of organisms from equipment to patients
- To outline the roles and responsibilities of all staff with regard to cleaning and decontamination

2.3 This document takes into account national cleaning standards PAS 5748 Specification for the planning, application and measurement of cleanliness services in hospitals (2014).

2.4 Preventing and controlling infection is an essential and integral part of clinical practice. A wide range of chemicals can be used to destroy microorganisms. These include disinfectants for inanimate surfaces and antiseptic agents for use on the body. No chemical is completely effective, for example, some do not destroy viruses or bacterial spores, organic matter inactivates some, and certain agents are toxic to human tissue

2.5 Patient equipment is also referred to as a 'medical device', for the purpose of this policy all medical devices will be referred to as patient equipment.

3.0 RESPONSIBILITIES.

Responsibilities are as set out in the overarching IPC policy 7a except:

3.1 Every healthcare organisation should have a nominated decontamination lead with responsibility for decontamination, either at Board level or someone who has line management responsibility to a senior responsible person at that level.

3.2 The decontamination lead should have responsibility for ensuring that policies exist and that they take account of best practice and national guidance. They should consider guidance under the following headings:

• Decontamination of the environment – including cleaning and disinfection of the fabric, fixtures and fittings of a building (walls, floors, ceilings and bathroom facilities) or vehicle;

• Decontamination of linen – including correct classification and sorting of used linen (e.g. soiled and fouled linen, infectious linen, heat labile linen) and disinfection of linen;

• Decontamination of equipment – including cleaning and disinfection of items that come into contact with the patient or service user, but are not invasive devices (eg beds, commodes, mattresses, hoists and slings, examination couches);

• Reusable medical devices should be reprocessed if necessary at one of the following three levels:

- sterile (at point of use);
- sterilised (i.e. having been through the sterilisation process);
- clean (i.e. free of visible contamination)

3.3 The Trust must ensure that it designates leads for environmental cleaning and decontamination of equipment used for diagnosis and treatment (a single individual may be designated for both areas).

3.4 The designated lead for cleaning involves directors of nursing, matrons and the infection prevention team or persons of similar standing in all aspects of cleaning services, from contract negotiation and service planning to delivery at ward and clinical level. In other settings, the designated lead for cleaning will need to access appropriate advice on all aspects of cleaning services.

3.5 Matrons or persons of a similar standing have personal responsibility and accountability for maintaining a safe and clean care environment.

3.6 The nurse or other person in charge of any patient or resident area has direct responsibility for ensuring that cleanliness standards are maintained throughout that shift

3.7 It is the responsibility of member of clinical staff to effectively decontaminate all items they have used directly to provide care between every episode of use on a patient.

3.8 Each departmental Head/Manager is responsible and accountable for ensuring adequate cleaning schedules are in place covering the equipment used in their area. All staff must be clear as to their role and responsibilities in relation to the decontamination of reusable medical devices. If unclear, advice must be sought from line managers or the IPC Nurse Specialist and the Estates and Waste Advisor.

4.0 DEFINITION OF TERMS

4.1 Medical Device

The Health and Social Care Act (2008) refers to medical devices as:
"All products, except medicines, used in healthcare for diagnosis, prevention, monitoring or treatment. The range of products is very wide and includes, for example, contact lenses, condoms, heart valves, hospital beds, radiotherapy machines, resuscitators, surgical instruments, syringes, wheelchairs and walking frames".

4.2 Contamination.

Defined as the soiling of inanimate objects or living material with harmful, potentially infectious substances. In the clinical situation this is most likely to be organic matter (e.g. blood, faeces etc.) but may also include inorganic substances such as dust. Such contamination may be transferred to a susceptible host (person).

4.3 Decontamination.

A process which removes or destroys contamination thus preventing micro-organisms or other contaminants reaching a susceptible host (person) in sufficient quantities to cause infection or other harmful response.

The three stages of decontamination are:	
Cleaning All items must be cleaned thoroughly before proceeding to disinfection or sterilisation as any remaining organic matter will inactivate these processes	• Physical removal of contaminants which does not necessarily destroy microorganisms • The reduction in microbial contamination cannot be quantified, but thorough cleaning will remove up to 80% of micro-organisms.
Disinfection	• A process which reduces the number of viable micro-organisms but is not necessarily effective against bacterial spores or some viruses.
Sterilisation	• A process used to render an object free from viable micro-organisms, including bacterial spores and viruses

5.0 RISK MANAGEMENT

5.1 Any member of staff undertaking the decontamination of reusable patient equipment should be aware of the principles of decontamination and the risk assessment process they need to undertake when deciding on the most appropriate method and substance to use.

Staff must also be aware of the manufacturer's recommendations when decontaminating equipment, if they choose not to follow the recommendations they may take on product liability and not decontaminate the equipment effectively leading to an increased risk of cross infection.

5.2 This guidance **should not** be used by staff if:

- **The equipment is single use** (see section 6.2)
- They are unsure of the manufacturer's guidelines on decontamination
- They are unsure of the hazards posed by the decontamination process in relation to Control of Substances Hazardous to Health Regulations 2002 (COSHH)
- They do not have the facilities or personal protective equipment available to undertake decontamination safely.

5.3 Risk Assessment Tool

- The safe decontamination of patient equipment is an essential part of routine Infection Prevention and Control. The method of decontamination selected should consider the risk of the item acting as a source of infection and the decontamination processes it will tolerate.

- The Medicines Healthcare Products Regulatory Agency (MHRA), formally the Medical Devices Agency, has produced a risk assessment tool that categorises the risk the instrument/equipment being used poses to an individual based on the area of the body on/in which it has been used. The risk assessment tool is as follows:

Risk	Application	Recommendation
High	Items in close contact with a break in the skin or mucous membrane or introduced into sterile body area, e.g. surgical instruments	• Equipment / instruments must be cleaned and sterilised after each patient use. • These instruments **must** be sterile at point of use
Intermediate	Items in contact with intact skin, mucous membranes or body fluids, particularly after use on infected patients or prior to use on immunocompromised patients, e.g. speculums	• Equipment / instruments must be cleaned and sterilised between uses • But these items need not be sterile at point of use.
Low	Items in contact with healthy skin or mucous membranes or not in contact with patient e.g. thermometer, environmental surfaces.	• Cleaning with general-purpose detergent. • Rinsing and drying may be required prior to contact with skin • Chemical disinfection may also be appropriate

- Before undertaking any reprocessing staff should use the above risk assessment tool to determine the required, cleaning, disinfection and sterilising process needed.
- Manufacturer's guidance must always be followed when decontaminating any equipment/instruments.

- It is essential to ensure that the manufacturer states the method of decontamination for any new equipment/instrumentation purchased as this may impact on the eventual purchasing decisions that are made.

6.0 DECONTAMINATION OF PATIENT EQUIPMENT

6.1 Re-Usable Medical Devices

- A reusable medical device can be used on more than one episode but should undergo some form of decontamination process between each use.
- The decontamination may consist of cleaning, disinfection, sterilisation, or a combination of these processes.
- Refer to Risk Assessment (above) and manufacturers' guidance.
- Where the manufacturer states a maximum number of times a device may be safely decontaminated, a record of each reprocessing episode should be kept with the device.

6.2 Single Use Medical Devices

- Single-use medical devices are those which have been designated single use only by the manufacturer and should never be reused (MDA DB 2000(04).
- The reuse of single use medical devices can affect their safety, performance and effectiveness, exposing patients and staff to unnecessary risk.
- The following is the European Standard symbol, used on packaging, to show where medical devices are intended for single use only.

- A device designated as 'single-use' must not be reused. It should only be used on an individual patient during a single procedure and then discarded. It is not intended to be reprocessed and used again, even on the same patient.
- The reuse of single-use devices can affect their safety, performance and effectiveness, exposing patients and staff to unnecessary risk.
- The reuse of single-use devices has legal implications:
  - anyone who reprocesses* or reuses a device intended by the manufacturer for use on a single occasion, bears full responsibility for its safety and effectiveness;
  - anyone who reprocesses* a single-use device and passes it to a separate legal entity for use, has the same legal obligations under the Medical Devices Regulations as the original manufacturer of the device

*Reprocess : To make good the device for reuse by any or a combination of the following processes: • cleaning • disinfection/decontamination • sterilization • refurbishment • repackaging.

Medicines and Healthcare Products Regulatory Agency Guidance. December 2013.

6.3 Standard Precautions

- When undertaking any type of decontamination, all staff must wear appropriate personal protective equipment (PPE), and perform thorough hand hygiene before and after

6.4 Cleaning Schedules

- Minimum cleaning frequencies are required for each piece of equipment to ensure a minimum standard of cleanliness. This should be agreed locally based upon a risk assessment process and documented in a cleaning schedule.
- Evidence of cleaning may be requested as part of Care Quality Commission inspections, IPC audits, and Root Course Analysis investigations.
- It is recommended that evidence such as a signature list is maintained to provide assurances of cleaning.
- Staff should also consider a system of labelling equipment after cleaning has taken place in order to provide visible assurances and evidence of cleaning such as the use of indicator tape designated to provide such assurance e.g. 'Green is Clean'.

6.5 Decontamination Processes

The method of decontamination used must:

- Be appropriate to the level of contamination of the item,
- Give acceptable decontamination
- Not damage the article or any of its components within.

Refer to the manufacturers guidelines, the Medical Devices guidance or contact the IPC Nurse Specialist for advice.

6.5.1 **Cleaning**:

- The physical removal of any contamination such as dirt, blood and faeces and will remove organic contamination but does not necessarily destroy microorganisms; approximately 80% of microorganisms will be removed.

- Cleaning is the most important part of the decontamination process and must be carried out following a standard procedure such as the NHS Method to a high standard prior to any further stages of the decontamination process.

- Manufacturers guidance on decontamination must be adhered to

- Perform Hand Hygiene before and after any decontamination process (Hand Hygiene Policy)

- A risk assessment must be made for the use of personal protective equipment (PPE)(Appendix 2)

- All cleaning products must be stored safely (Ref COSHH Policy)

- If the equipment can be immersed in water ensure the item is cleaned under the water to reduce splashing

- Once the equipment has been cleaned it is important to dry thoroughly to prevent any organisms from multiplying

- Use disposable cloths

- The use of a detergent is essential for effective cleaning either as a detergent solution diluted with water, as per manufacturer's instructions or disposable detergent wipes.

NB. When a piece of equipment is used for more than one patient, it must be cleaned following each and every episode of use and prior to being put into storage.

6.5.2 **Disinfection**:

- A process which reduces the number of viable microorganisms but will not necessarily inactivate some bacterial spores and viruses.

- Disinfectants are governed by the Control of Substances Hazardous to Health (COSHH) regulations (1999). These regulations require that staff using chemical products have appropriate information about the product in order to use it safely and correctly.

- The range of disinfectants should be limited to those of proven value such as those containing Sodium Hypochlorite 1% or Sodium Dichloroisocyanurate (NaDCC) e.g. Chlorclean, Milton and Haz Tabs.

- Alcohol preparations are also an effective disinfectant, most commonly used is Isopropyl alcohol 70%

- Do not dilute a disinfectant by guesswork, always follow the manufacturers instructions

- Perform hand hygiene before and after any decontamination process (Hand Hygiene Policy)

- A risk assessment must be made for the use of personal protective equipment (PPE). As a minimum, gloves and aprons should be worn. If there is a danger of splashing, eye protection should be worn.(appendix 2)

- It is important that the solution reaches all surfaces

- Pay attention to optimum exposure times and ensure that the disinfectant is left on the surfaces for the recommended length of time before rinsing and drying a per instructions.

- Discard disinfectant solution after use, clean the container and store it dry.

6.5.3 **Sterilisation:**

- The complete removal of all organisms including bacterial spores and viruses.

- The process of sterilisation is a specialised process that only takes place in a Central Sterilising Services Department (CSSD) or external contracted provider.

6.6 Pre-prepared wipes**:**

Pre-prepared wipes are a convenient and quick means of cleaning and/or disinfection. The main purpose of wipes is to remove contamination from surfaces, but additionally some

wipes provide antimicrobial activity by the inclusion of a disinfectant (Universal/ Sanitising Wipes).The following key points should be considered and managed so that wipe products maintain their effectiveness and are used properly:

- Follow manufacturer's instructions for storage guidance (where to store, how to store and length of storage life)
- Ensure stock rotation and undertake regular checks for wipes in packets/ containers to make sure these have not dried out or expired
- Consider the need to clean wipe containers/packets depending on risk of contamination of external container surfaces
- Ensure wipes are only used for their intended purpose according to local policies or guidance – for example detergent or disinfectant wipes specifically for use on the environment should not be used for decontamination of skin
- Ensure that wipes are disposed of according in correct waste streams appropriate to the level of contamination.

6.7 General points:

- All equipment must be cleaned prior to storage
- The use of indicator tape to give assurance of cleaning is recommended.
- The use of this tape will be assessed during audit processes
- All loan equipment must be cleaned prior to its return
- Any equipment requiring repair or servicing off site must be cleaned and indicator tape to give assurance of cleaning is recommended
- Equipment must be put away after use and not left out on work surfaces and tops of cupboards as this hinders environmental cleaning and allows for airborne contamination.
- If equipment is found in a dirty condition within shared clinical environments, staff have a responsibility to report this to an appropriate person such as the Ward Manager/ Team Coordinator/ Housekeeping Supervisor. If there is not an appropriate response, report to the IPC Nurse Specialist/ Estates and Facilities Advisor/ Matron.

7.0 TARGET AUDIENCE

All staff who are required to use medical devices and other items of equipment as part of their daily duties in patient care

8.0 TRAINING

8.1 The IPC Nurse Specialist can offer additional training on request which will include information contained in his policy.

8.2 Training is also provided by the Estates and Facilities Advisor on request.

8.3 All members of staff have an individual responsibility to ensure that they access IPC mandatory training.

9.0 CHAMPION AND EXPERT WRITER.

9.1 The Champion for this policy is the Director of Nursing and Quality
9.2 The Expert Writer is the Infection Prevention and Control Nurse Specialist

10.0 CONSULTATION.

Consultation for version 1 occurred through:

- Infection Prevention and Control Committee
- Nursing Executive members
- Public Health England

Additional Consultation for the revised version:

- Head of Physical Healthcare, IPC, Medical Devices and Smoking Cessation.
- Acting Service Manager Older Adults Division.
- IPC link practitioners
- Matrons
- Physical Healthcare Practitioners

11.0 LEGISLATION, GUIDANCE AND REFERENCES.

- The Health and Social Care Act 2008 Code of Practice on the prevention and control of infections and related guidance (Revised 2015) (Department of Health) London.
- Department of Health. (2009). *Health Technical Memorandum 01-01: Decontamination of reusable medical devices.* London: Department of Health.
- Department of Health. (2014). *PAS 5748 Specification for the planning, application and measurement of cleanliness services in hospitals*. London: Department of Health.
- epic3: *National Evidence-Based Guidelines for Preventing Healthcare-Associated Infections in NHS Hospitals in England* H.P. Loveday, Journal of Hospital Infection 86S1 (2014) S1–S70
- Health and Safety Executive (1992) *Personal Protective Equipment at Work Regulations: Guidance on Regulations.* London: The Stationary Office
- Health and Safety at Work Act 1974
- Control of Substances Hazardous to Health (COSHH) Regulations 2002.
- Medical Devices Agency (August 2000) *Single Use Medical Devices: Implications and Consequences of Re-use*
- *Microbiology Advisory Committee to the Department of Health (2014) Sterilisation, Disinfection and Cleaning of Medical Equipment: Guidance on Decontamination Medical Devices Agency*
- Royal College of Nursing. (2011). *The Selection and use of disinfectant wipes.* London
- Royal College of Nursing. (2013). *Creating a safe environment for care*. Defining the relationship between cleaning and nursing staff. London
- Medicines and Healthcare Products Regulatory Agency Guidance. December 2013.
- Nottinghamshire Healthcare IPC Policy 18.01. Decontamination of Patient Equipment

12.0 MONITORING COMPLIANCE

Compliance of this policy is monitored by audits carried out by the IPC Nurse Specialist and IPC Link Practitioners

13.0 ASSOCIATED TRUST POLICIES

7a. Infection Prevention and Control
7b. Hand Hygiene
7c.Outbreak of Infection
7n.Correct Use of Personal Protective Equipment in the Healthcare Environment
Waste Management
Medical Devices

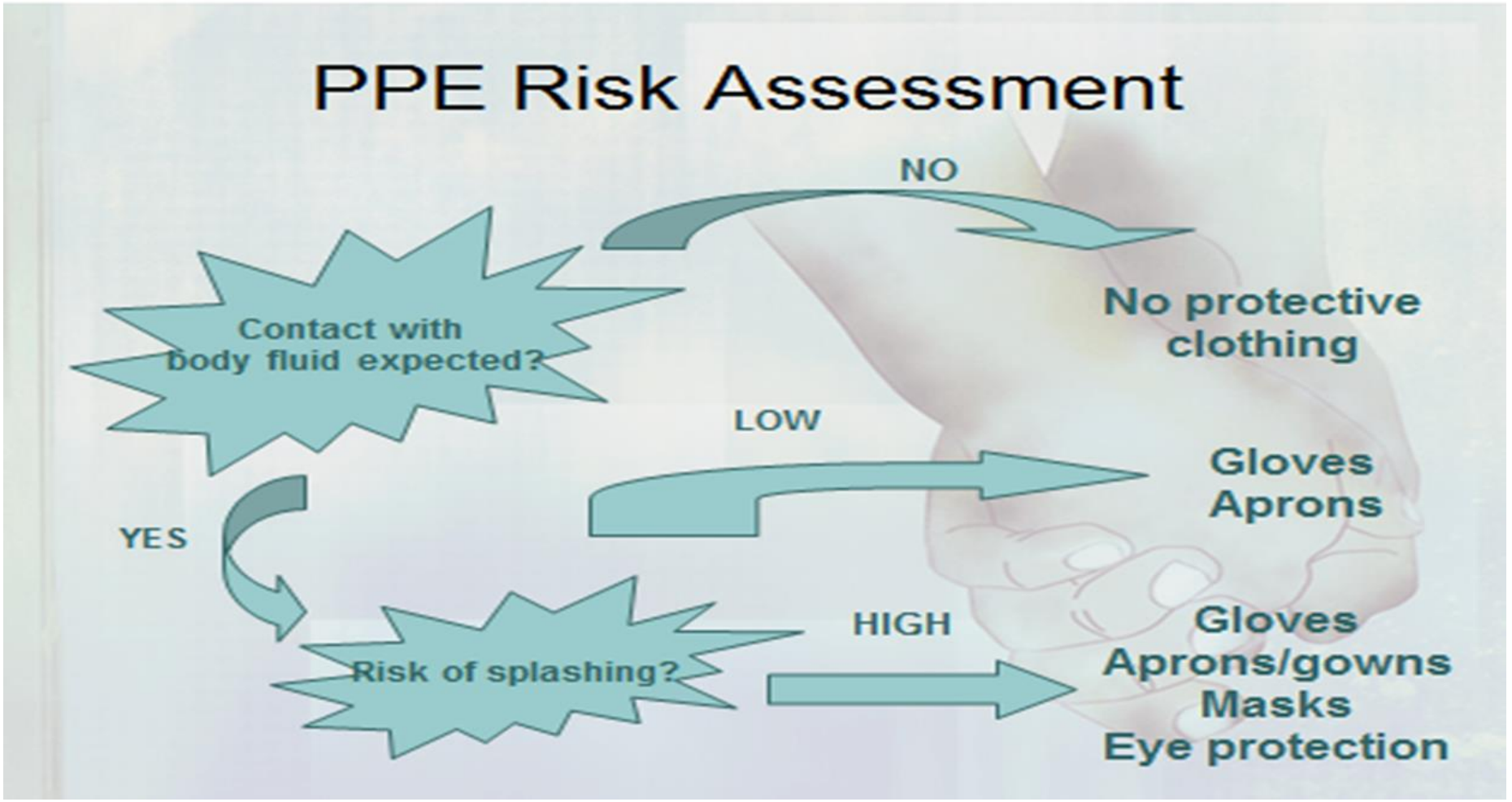
14.0 REVIEW DATE

This policy/procedure will be reviewed in 3 years or in light of organisational or legislative changes.

Record of changes

Date	Author	Policy/Procedure	Details of change(s).
July 2017	J. Lord	7 g	Minor formatting and title changes throughout Reference to new legislation Additional appendices

Appendix 2 Personal Protective Equipment Risk Assessment



Appendix 3 Equality Analysis Form

Name of Policy/ project/ service	**Infection Prevention and Control** **Decontamination of Patient Equipment**		
Aims of policy/ project/ service	**This policy details safe and effective decontamination methods for patient equipment to minimise the risk of transmission of infection.**		
Is this new or existing?	Existing		
Person(s) responsible	Jane Lord		
Key people involved	Jane Lord		
Who does it affect?	Service users □√	Staff □√	Wider Community □√

Is the policy/ project/ service likely to have an effect on any of the protected characteristic groups? (please tick)

	Positive	Negative	None	Is action possible to mitigate any negative impact?	Details of action planned (including dates or why action is not possible)
Age	√				
Disability	√				
Sex	√				
Gender Reassignment	√				
Sexual Orientation	√				
Race	√				
Religion and Belief	√				
Marriage and Civil Partnership	√				
Pregnancy and	√				

Maternity					
Carers	√				

Any other information that is relevant to the equality impact of the policy/ project/ service?

Detail any positive outcomes for any of the protected groups listed above

The policy will ensure best practice to prevent transmission of infectious disease

Result of Equality Analysis

Based on the information above- what is the outcome of the Equality analysis?

a) No change √ □	b) Adjust the activity □	c) Stop/remove the activity □
Detail any adjustments that are to be made and how these will be monitored		

Person who carried out this assessment	Jane Lord
Date assessment completed	19/07/2017
Name of responsible Director/General Manager	Anne-Maria Olphert
Date assessment was signed	
Date of next review	19/07/2020