

Infection Control Policy and Procedure

Version 2

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1. Introduction and Aim

The aim of this policy is to ensure that patients/participants, YNiC staff and other persons are protected against the risk of healthcare-acquired infections (HCAIs) at the York NeuroImaging Centre facility, by the implementation of appropriate infection prevention and control measures.

2. Scope

This policy is to be followed by all YNiC and YDI employees.

3. Roles and Responsibilities

- 3.1. The Centre Director is responsible for ensuring that the Health and Social Care Act: Code of Practice for Infection Prevention and Control 2009, is applied to York NeuroImaging Centre facilities and services through appropriate management systems.
- 3.2. The Infection Prevention and Control Lead (IPCL) shall be the Registered Manager of the clinical service. In their absence any issues or incidents should be raised with the Director.
- 3.3. The IPCL is responsible for ensuring that:
 - All employees are aware of and understand this policy.
 - All employees receive training in infection prevention and hand hygiene.
 - Through correct implementation of this policy, the risk of transmission of infection is minimised.
 - The work environment for which they are responsible, is safe and clean thereby minimising the risk of transmission of infection.
- 3.4. All employees have a responsibility for ensuring that:
 - They understand and comply with this policy.
 - They receive training in infection prevention and hand hygiene.
 - Their work environment is safe and clean thereby minimising the risk of transmission of infection.
 - Their practices and standards of care minimise the risk of patients developing an HCAI.
 - Their line manager or the IPCL is informed immediately if practices or issues with the environment in which they work, may result in an increased risk of the transmission of infection to patients.
- 3.5. The IPCL will have responsibilities as stated in the Health and Social Care Act 2008: Code of practice for health and social care on the prevention and control of infections.

4. Infection Prevention and control

4.1 Policy

York NeuroImaging Centre will ensure that the risk of transmission of infection is minimised by:

- Providing and maintaining a clean and safe environment.
- Assessing risks from infection and take action to reduce them.
- Co-operating with other providers of healthcare to enable all to meet the Code of practice for infection control.
- Adhering to the policies and procedures applicable to infection prevention and control.
- Acting on clinical alerts as they are received.
- Ensuring as far as reasonably practicable, that all staff are free of and protected from exposure to communicable disease during the course of their work.
- Ensuring employees receive training in infection prevention and hand hygiene.

4.2 Assurance Framework

The following activities are undertaken to demonstrate infection prevention and control practices are assured.

- Daily compliance documentation is completed.
- Regular audit of hand hygiene practices.
- All infection prevention issues are immediately escalated to the appropriate manager.
- Actions taken when dealing with any occurrences of infection are fully documented.

4.3 Reporting pathway

- 4.3.1. Any infection control issue is raised with appropriate manager and/or escalated IPCL.
- 4.3.2. Where it is necessary to gain microbiology support, this will be sourced externally to York NeuroImaging Centre.
- 4.3.3. York NeuroImaging Centre is only responsible for care of the patient during the diagnostic imaging stage of their care pathway; therefore, surveillance of HCAI must be undertaken in conjunction with other care providers. This process will be documented as agreed with the primary healthcare provider and York NeuroImaging Centre will cooperate fully with any investigation.
- 4.3.4. Reporting into the HCAI National surveillance schemes will be the responsibility of the main provider of care in each case.

5. Hand Hygiene

5.1 Introduction

Effective hand hygiene is the single-most important practice in reducing the prevention of transmission of infection in healthcare.

5.2 General Guidelines

- 5.2.1. The times that hand hygiene should be practised are summarised in the World Health Organisation document '*Your 5 moments for Hand Hygiene*' (Appendix 1) and should be

performed following the methodology in Appendix 2.

5.2.2. Hand hygiene must still be performed even if gloves have been worn.

5.2.3. Hand washing is always necessary if hands are visibly soiled.

5.2.4. Where infection from a spore-forming organism is suspected / proven e.g. *Clostridium Difficile*, alcohol based rubs are not effective and soap and water will be used, to ensure effective cleaning.

5.2.5. Where infection from an micro-organism such as Norovirus is suspected or proven, alcohol based rubs are not effective and soap and water will be used, to ensure effective cleaning.

5.2.6. All solutions for hand hygiene will be stored in a wall-mounted dispenser that can be easily cleaned, have single-use cartridges and 'topping-up' of bottles will never occur.

5.3 Social Hand Hygiene

This is performed to render the hands physically clean and remove microorganisms from social activity.

5.3.1. This must be performed before:

- Starting/ending a shift
- Eating or handling food or drink
- Touching a patient
- Entering/leaving a clinical area
- Must be performed after:
- Touching a patient
- Hands are visibly soiled
- Visiting the toilet
- Handling laundry
- Touching patient environment
- Removing gloves

5.3.2. Hand hygiene is normally performed with soap and water however where hands are not visibly soiled alcohol hand rub can be used.

5.4 Hygienic/Aseptic Hand Hygiene

5.4.1. To remove or destroy transient microorganisms, in order to reduce resident microorganisms when hygiene is particularly important.

5.4.2. Must be performed before:

- Clean/aseptic procedures
- Contact with immunocompromised patients

5.4.3. Must be performed after:

- Blood/body fluid contamination

- Invasive procedures

5.5 Hand Hygiene Facilities

5.5.1. The following hand washing facilities will ensure effective hand hygiene is performed:

- Facilities close to points of patient contact
- 'hands-free' tap systems to prevent recontamination of hands
- No plugs in sinks in order to prevent filling of sinks
- Mixer taps to provide correct temperature of water
- Tap sited so water does not directly empty down plug hole
- Availability of supplies one or more of the following will be supplied:
- Soap, alcohol hand gel and hand cream in wall mounted easy to use dispensers. Nozzles must always be clean
- Soft paper towels for hand drying

5.5.2. Alcohol hand rub will be supplied in wall mounted easy to use dispensers where possible. These will be placed at points of direct patient contact.

5.5.3. Hand towels – only paper and disposable will be used.

5.6 Standards of hand hygiene

5.6.1 Hand Care

- Hand cream is available to all staff and its use encouraged in order that skin does not become dry or cracked. This should be used before breaks and at the end of shifts.
- All cuts and abrasions must be covered.
- Any sensitization to skin care products must be reported to the member of staff's line manager.

5.6.2 Nail Care

Operator nails must be:

- Short and clean
- Free from nail polish
- No artificial/acrylic nails

5.6.3 Jewellery

Operators must not:

- Wear stoned rings (wedding bands are acceptable, care must be taken to clean thoroughly underneath)
- Wear watches or wrist jewellery of any kind, when providing direct care to a patient.

6. Maintain integrity of skin

- 6.1.1. All cuts to skin must be covered with a waterproof dressing.
- 6.1.2. Skin must be dried properly and hand cream regularly used.
- 6.1.3. Staff with active skin conditions must seek advice from their GP. If they require alternative hand cleaning products, they must contact their line manager.

7. Use of Personal Protective Equipment (PPE)

- 7.1.1. The purpose of PPE is to protect staff and reduce opportunities for transmission of micro-organisms. All staff must wear personal protective clothing and handle all body fluids and specimens with care. The choice of protective clothing depends on the risk of exposure to blood and body fluids during each particular procedure.
- 7.1.2. Personal protective clothing includes gloves, plastic aprons, masks and eye protection.
- 7.1.3. A variety of gloves are provided by York NeuroImaging Centre including those which are both latex and powder-free.
- 7.1.4. Appropriate PPE should be used whenever there is a significant likelihood of personal contamination.

8. Decontamination of equipment and reusable medical devices

- 8.1.1. All diagnostic imaging equipment will be cleaned daily using a suitable cleaning agent and disposable cloths, or with cleaning wipes for the purpose, paying particular attention to horizontal surfaces with which patients have had contact.
- 8.1.2. Imaging accessories will be decontaminated after each patient contact with a suitable cleaning agent (e.g. Ecolab Cliniwipes).
- 8.1.3. Contrast agent spillages must be removed immediately with detergent.
- 8.1.4. Blood Spills
 - Small areas of blood to be decontaminated immediately using 1,000 ppm solution of NaDCC (Presept) on a disposable cloth. The cloth will then be discarded into a clinical waste bin.
 - Large areas of blood to be decontaminated immediately, by covering spill with paper roll, soak this in 1,000 ppm NaDCC (Presept) solution. Leave for 3 minutes, then discard in clinical waste bin. Any remaining blood can be removed with undiluted Milton on a disposable cloth.
- 8.1.5. No single use medical equipment will be re-used.
- 8.1.6. When decontaminating any equipment, manufacturer's instructions will be followed.
- 8.1.7. Only healthcare/hospital specification cleaning agents will be used for decontamination of medical equipment.
- 8.1.8. Records of cleaning will be completed and kept for a period of 12 months.

8.2 Spill Kits

- 8.2.1. Spill kits are provided to allow cleaning of large spills such as urine and vomit.
- 8.2.2. The granules are sprinkled on the spill, which then solidifies into a gel, making the spill easier to collect with paper roll.
- 8.2.3. Cleaning with detergent and water should then take place.

9. Decontamination of the environment

- 9.1. All horizontal surfaces in clinical areas will be damp dusted daily.
- 9.2. Gloves will be worn when using any cleaning product, cloths and mop heads will be disposed of after cleaning, mop buckets will be rinsed and stored inverted to allow drying, and staff will decontaminate their hands appropriately.
- 9.3. Bins will be emptied daily by cleaning staff or York NeuroImaging Centre staff as required.

9.4 Cleaning Service Providers

- 9.4.1. Responsibility for cleaning is clearly defined in the *Cleaning Responsibility Framework* Appendix 3. The tick list for completion daily by the contract cleaners is also attached (see Appendix 5).

9.5 Cleaning Equipment

- 9.5.1. All cleaning equipment used by York NeuroImaging Centre staff will be fit for purpose, easy to use and single-use disposable where applicable.
- 9.5.2. All cleaning equipment used by external cleaning contractors will be deemed suitable and safe to use, in view of the safety dangers posed by MRI units. This will be reviewed by the Registered Manager.
- 9.5.3. All cleaning products used will comply with COSHH regulations and be recommended as fit for purpose.

9.6 Audit and Monitoring

- 9.6.1. Staff will provide daily evidence of cleaning by completion of appropriate cleaning records.
- 9.6.2. Contracted cleaners will provide evidence of effective cleaning by completion of appropriate cleaning records.
- 9.6.3. The Registered Manager will regularly inspect the environment to ensure compliance and action will be taken as soon as is reasonably practicable to remedy any areas of non-compliance.

10. Cleaning Procedure prior to Inspection, Service or repair

- 10.1. All re-usable medical equipment, including large scanning equipment (MRI, CT scanners etc) will be decontaminated prior to inspection, service or repair, and this will be

documented on the *Equipment Handover Sheet*, Appendix 4. This form will be available to all engineers prior to starting any work on any piece of equipment.

11. Aseptic Technique

11.1. An aseptic technique will be used during all procedures and examinations that may potentially breach a patient's natural defences and allow entry of microorganisms e.g. intravenous injection of contrast media.

11.2. Procedure

11.2.1. Ensure that all equipment required is readily available and there is a clear and clean field in which to carry out the procedure.

11.2.2. Explain the procedure to the patient and gain verbal/written consent as necessary.

11.2.3. Hands must be decontaminated as necessary, either by hand washing or by use of alcohol hand rub.

11.2.4. Identify which parts of the equipment will remain sterile key parts, and will not need to be touched by gloves. If it is possible to complete the procedure without touching key parts, then non-sterile clean gloves can be worn. If this is not possible, or if the practitioner is not satisfied that their competence is sufficient to prevent this, then sterile gloves must be worn.

11.2.5. All equipment needed must be available, either in a clean tray or on a cleaned trolley. Cleaning must be done with an alcohol wipe.

11.2.6. A clean field must be used for the procedure, either by using a dressing sheet or cleaning the surface to be used with an alcohol wipe.

11.2.7. **Remember:** All Key sterile parts must not be touched or come into contact with any non-sterile item or surface. Even when wearing sterile gloves it is still best practice to avoid touching key parts.

11.2.8. For pump injector, ensure that no sterile part of the connection tubing, spike or quill are touched or contaminated in any way. Remember: this is an ASEPTIC technique.

11.2.9. After completion of procedure, discard waste contaminated with body fluid into an appropriate clinical waste bin and sharps container at point of use.

11.2.10. Discard gloves immediately and wash hands, or use alcohol hand rub. Use of gloves promotes growth of micro-organisms on warm, damp skin of hands.

12. Management of Infectious Patients/participants

12.1. The MRI equipment and environment, presents difficulties with adequate and effective decontamination following scanning of patients who may have a communicable infection. Consequently patients/participants known to have the following communicable infections will not be accepted for imaging.

- Infants with Bronchiolitis
- Chicken Pox
- Chlamydia pneumonia
- Cholera
- Clostridium Difficile

- Diphtheria
- Influenza
- Measles
- MRSA
- Mumps
- Norovirus
- Poliomyelitis
- Respiratory Syncytial Virus
- Rubella
- Shigella (Dysentery)
- Viral Haemorrhagic Fever (Lassa, Ebola Marburg, Crimean Congo)
- Whooping cough

12.2. In the event that a Patient is scanned with one of the above infections then the system will be disinfected using 1,000ppm solution of NaDCC prior scanning the next Patient.

13. Imaging Isolation precautions

13.1. Patients requiring nursing using isolation precautions/procedures will not be accepted for imaging.

14. Hepatitis B and Blood Borne Viruses

14.1. Screening for BBVs will not be routinely performed due to the very low frequency of exposure to blood products or material contaminated with blood products.

14.2. Any staff member who feels their duties or working practices warrant immunisation should arrange with their GP to be immunised. Any fee payable will be met by York NeuroImaging Centre.

14.3. Staff undertaking Exposure prone Procedures

14.3.1. York NeuroImaging Centre staff, at this present time, do not undertake any Exposure Prone Procedures as described in the Department of Health Guidelines 2007: Health Clearance for Tuberculosis, Hepatitis B, Hepatitis C and HIV: New workers. This will be reviewed as necessary.

15. Review

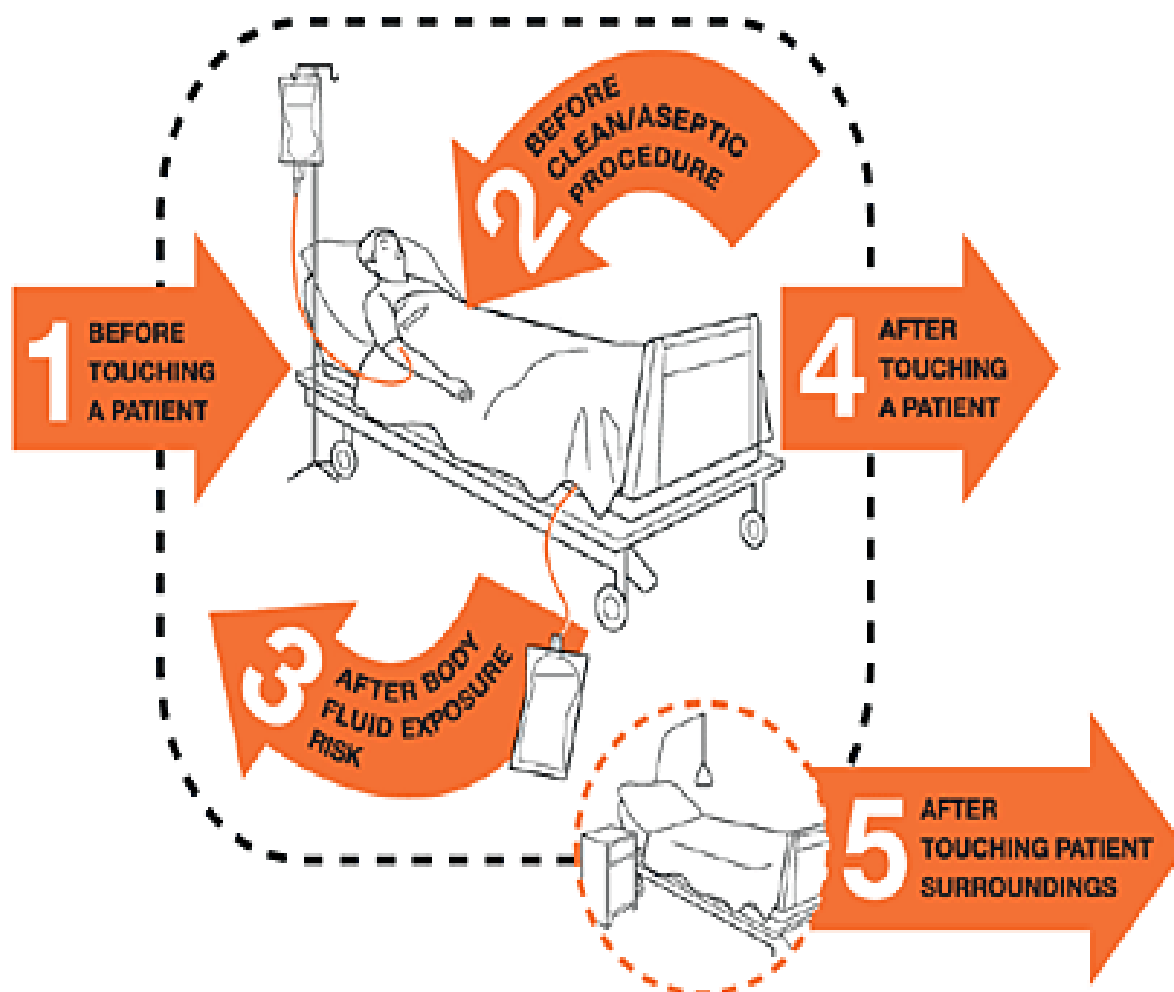
This policy will be reviewed every three years or sooner if there is any change to current legislation or guidelines. This will be undertaken by the Infection Control Lead.

16. Evaluation

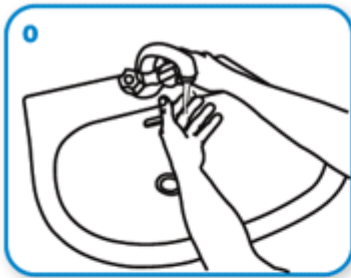
The implementation and effectiveness of this policy will be evaluated through the following:

- Review of incidents and complaints

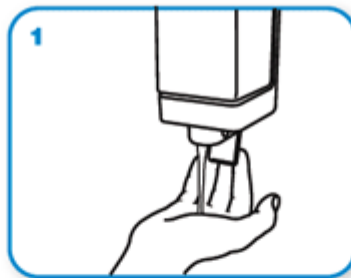
Appendix 1: The 5 moments of Hand Hygiene



Appendix 2: Technique for hand hygiene



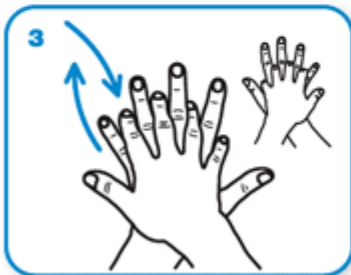
Wet hands with water



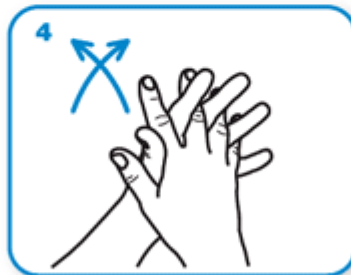
apply enough soap to cover all hand surfaces.



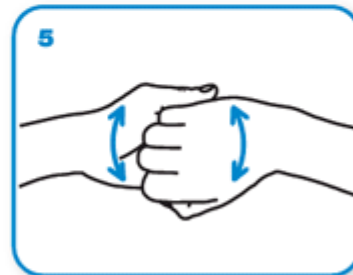
Rub hands palm to palm



right palm over left dorsum
with interlaced fingers
and vice versa



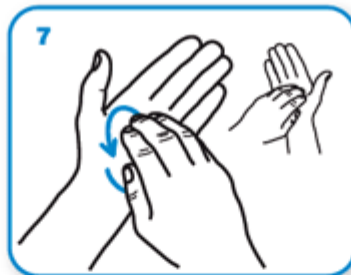
palm to palm with fingers
interlaced



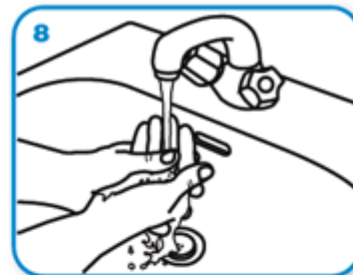
backs of fingers to opposing
palms with fingers interlocked



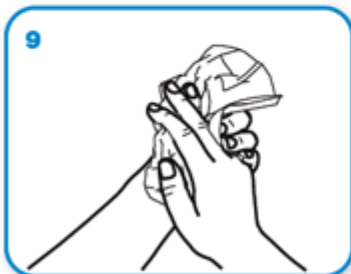
rotational rubbing of left thumb
clasped in right palm
and vice versa



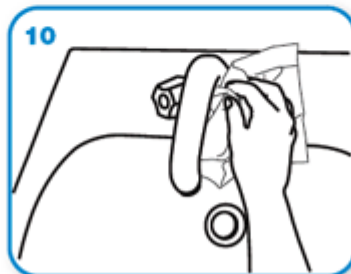
rotational rubbing, backwards
and forwards with clasped
fingers of right hand in left
palm and vice versa.



Rinse hands with water



dry thoroughly with a single
use towel



use towel to turn off faucet



...and your hands are safe.

Appendix 3: Cleaning Responsibility Framework

Key CS = Centre Staff
 CC= Contract Cleaning Staff

| Items | Frequency | Staff Group Responsible | Comments |
|--|----------------|---|--|
| Floors | Daily | Scan Room CS All other Floors CC | Floors stripped and sealed by CC, Yearly |
| Horizontal surfaces | Daily | Scan Room CS Control Room CS All other Areas CC | |
| Chairs/stools | Quarterly | CC | |
| Waste receptacles | Fortnightly | CC | |
| Cleaning Equipment | After each use | By User | |
| Hand Hygiene dispensers | Fortnightly | CC | |
| Sinks | Daily | CC | |
| Telephones | Daily | CC | |
| Monitors/keyboards | Daily | CS | |
| Patient Table | Daily | CS | |
| Patient mattress | Daily | CS | |
| Patient Pillow | Daily | CS | |
| Patient easy slides | After use | CS | |
| Suction Equipment | After use | CS | |
| Fire extinguishers | 6 Monthly | CC | |
| Cupboards | 6 Monthly | CS | |
| Pump Injector | Daily | CS | |
| Patient examination couch | Daily | CS | |
| Any equipment in direct contact with the patient | After use | CS | |
| MRI coils | After use | CS | |
| Patient headphones | After use | CS | |

Appendix 4: Handover Sheet

Equipment Handover Sheet
(To be completed on service or repair)

Equipment

This equipment has been cleaned and/or
decontaminated in preparation for service or repair.

Equipment Received in satisfactory condition for Service/Repair (Comments below)

Service/Repair complete. System fit for Customer use. (Comments below)

Equipment accepted as fit for use
(Comment below)

Appendix 5: MRI Cleaning Checklist

York Neuroimaging Centre
THE UNIVERSITY *of York*

Week Commencing: _____

| MRI corridor | Frequency | Mon | Tues | Wed | Thurs | Fri |
|---|------------------|------------|-------------|------------|--------------|------------|
| Bins emptied | Daily | | | | | |
| Sinks & Toilet cleaned in Toilet and Patient area | Daily | | | | | |
| Work surfaces cleaned | Daily | | | | | |
| Toilet and Patient prep area floors mopped | Daily | | | | | |
| Carpeted floors to be hovered | Daily | | | | | |
| Door glass & skirting wiped | Weekly | | | | | |
| Chairs cleaned | Weekly | | | | | |

| MRI control Room | Frequency | Mon | Tues | Wed | Thurs | Fri |
|-----------------------------|------------------|------------|-------------|------------|--------------|------------|
| Bin emptied | Daily | | | | | |
| Sink & Worksurfaces cleaned | Daily | | | | | |
| Floors mopped | Daily | | | | | |
| Door glass & skirting wiped | Weekly | | | | | |
| Chairs cleaned | Weekly | | | | | |

| Chemistry Area | Frequency | Mon | Tues | Wed | Thurs | Fri |
|-----------------------|-----------|-----|------|-----|-------|-----|
| Bin emptied | Daily | | | | | |
| Sinks cleaned | Daily | | | | | |
| Work surfaces cleaned | Daily | | | | | |
| Floors mopped | Daily | | | | | |
| Door glass wiped | Weekly | | | | | |

by (please initial): _____