

DECONTAMINATION OF MEDICAL DEVICES
INFECTION PREVENTION AND CONTROL
APRIL 2018

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Decontamination of medical devices

1. Introduction

This policy gives guidance for all staff to follow the processes of decontamination, cleaning and disinfection. The scope of this policy applies to all staff, including bank and agency staff who work in the Trust.

The Medical Devices Directive (MDD) – 93/42/EEC defines a medical device as:

‘Any instrument, apparatus, appliance, material, or other article, whether used alone or in combination, including the software necessary for its proper application intended by the manufacturer, to be used on human beings for the purpose of:

- Diagnosis, prevention, monitoring, treatment or alleviation of disease
- Diagnosis, monitoring, treatment, alleviation of, or compensation for, an injury or disability
- Investigation, replacement or modification of the anatomy or of a physiological process
- Control of conception and which does not achieve its principal intended action in or on the human body by pharmacological, immunological, or metabolic means, but which may be assisted in its function by such means.

The purpose of this document is to ensure all staff are aware of how to clean medical equipment, and the surrounding environment. What products, equipment and materials to use and staff roles and responsibilities in relation to decontamination, cleaning and disinfection.

2. Responsibilities

It is the responsibility of whoever is required to use the medical equipment to ensure that it is clean and fully working. It is the responsibility of the Infection Prevention and Control Link Champion to ensure that the checks are undertaken at the prescribed intervals and that the equipment is cleaned. This does not mean that it is their

responsibility to clean it as that should be shared but their responsibility is to monitor whether it has been undertaken.

3. General Principles

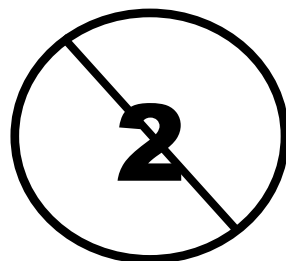
Decontamination is an umbrella term used to describe processes that make equipment safe for re-use which includes the destruction or removal of micro-organisms. Inadequate decontamination is frequently associated with outbreaks of infection in hospitals, and all health care staff must be aware of the implications of ineffective decontamination and their responsibilities to service users, themselves and their colleagues.

Decontamination can be a singular or a combination of processes that render the equipment safe to be used again on the same or another person.

There are three levels of decontamination, general cleaning, disinfection and sterilisation.

Equipment used in health care may be designated as single use, single patient use or reusable multi-patient use. Any equipment not designated as a single use item must be made safe following use to prevent micro-organisms being transferred from equipment to patients and potentially resulting in infection.

This label denotes a single use item that **must not** be re-used



4. Methods/Procedures

4.1 Choice of decontamination method for multi-patient use devices

All equipment will require cleaning. Some equipment will also require disinfecting or sterilizing. Decontamination will work less efficiently on equipment that is difficult to clean, and/or in a poor

condition. The level of decontamination required is based on the risk (matrix is provided at Appendix 3 to inform the risk assessment)

Compatibility of equipment with the chosen method of decontamination will be determined from information from the manufacturer. Manufacturers of medical devices are required to provide decontamination guidance for reusable products.

The choice of method also depends on the purpose of the equipment and other risk factors.

Cleaning and/or disinfection of medical equipment must:

- Take place after and between uses on individual service users.
- Once cleaned/disinfected, pieces of equipment e.g. drip stands, commodes should be labelled with an appropriate tag to identify that it has been cleaned. The label should be dated and signed.
- Audits should be carried out regularly on cleanliness of equipment in each area. An audit form can be obtained from the Infection Control Team.
- Equipment requiring service or repair must be thoroughly cleaned and decontaminated prior to inspection and a label attached identifying method of decontamination.

See Appendix 1 for a list of common equipment used in the Trust and what should be used to decontaminate it. Appendix 2 demonstrates how the Clinell wipes should be used.

4.2 **During an outbreak of infection**

In the event of an outbreak of infection the Infection Prevention and Control Team may recommend additional measures when cleaning medical equipment. This advice should be followed and if there is uncertainty then the Infection Prevention and Control Team should be contacted.

4.3 **Decontamination of equipment prior to service or repair including the need for it to leave site)**

Equipment that leaves an area for any reason, such as service or repair must be correctly labelled, with the green label. When being sent for repair, the equipment type, ID number and label number should be entered in the loan register located in the Estates Information folder. The 'Decontamination Label' must be signed by the user who knows the conditions in which the equipment has been used. (See appendix 4 and 5)

5. Environmental Hygiene

The environment must be visibly clean, free from dust and dirt and acceptable to service users, their visitors and staff. In order for the environment to be kept clean areas must be kept tidy and free of clutter. Cleaning frequencies should be in line with 'The national specifications for cleanliness in the NHS: a framework for setting and measuring performance outcomes' (April 2007 NHS Patient Safety Agency). A cleaning schedule should be available on the ward with daily and weekly cleaning tasks; this should be available for review although not on show.

Within the cleaning contracts there will be method statements for how each area is cleaned, the frequency and which products should be used.

Methods for cleaning are usually termed "dry" or "wet"

- Dry - Vacuum or dust attracting mops (sticky or static)
- Wet - General detergent solutions on surfaces and floors.

Cleaning materials

- Vacuum, cleaners should contain bacteria retaining filter or bag and the exhaust directed away from the floor.
- Brushes must not be used in clinical/ward areas as they disperse bacteria into the air in large numbers.
- Cleaning materials such as cloths and mops if kept moist act as an ideal growth medium for bacteria, which will multiply rapidly. It is important, therefore that disposable materials that are for single use such as cloths, are disposed of after the task.

National colour coding of cleaning equipment

RED Bathrooms, washrooms, showers, toilets, basins and washroom floors	BLUE General areas including, wards departments, offices and basins in public areas
GREEN Catering departments, ward kitchen areas, patient food service areas	YELLOW Isolation areas

Colour coding of hospital cleaning materials and equipment ensure that these items are not used in multiple areas, therefore reducing the risk of cross infection. These colours are nationally recognised to increase understanding across the whole of the NHS.

All cleaning materials and equipment, for example, cloths, mops, buckets, aprons and gloves must be colour coded according to the cleaning code.

Buckets should be cleaned and left dry and inverted at the end of the task.

5.1 Environmental cleaning during an outbreak of infection

Increased levels of cleaning should be enforced in during outbreaks of infection to at least twice daily or on advice from infection prevention and control. Facilities/service provider should be informed as soon as an infection or outbreak is suspected.

The Infection Prevention and Control Team will identify what special cleaning measures, if any, need to be introduced in an effort to reduce the spread of infection. This advice will include actions for both the domestic staff and the clinical staff and products to be used, which wherever possible should include disposable single use cloths and mops.

6. Responsibilities

6.1 All staff (who provide care in the healthcare setting) have a responsibility to:

- Apply the principles of standard infection control precautions
- Follow cleaning schedules which are clearly defined, monitored, documented and available on the ward, area or via Facilities Department.
- Meet the requirements of the Health and Safety at work act (1974) and the Control of substances Hazardous to Health (COSHH) regulations (HSE, 2004) to ensure that the equipment in their area is correctly decontaminated between uses and patients. Manufacturer's guidance must always be followed for cleaning and disinfecting equipment.
- Report to line manager any deficits in relation to knowledge of management of care equipment, the environment or any incident that may have resulted in cross contamination.

6.2 Managers have the responsibility to ensure that:

- Manufacturer's guidance is available for equipment prior to any purchase.
- All staff under their supervision apply the principles of standard infection control precautions.
- All staff have had instruction and education on the principles of managing care equipment and controlling the environment which will include standard infection control precautions.
- Adequate resources are in place to allow for recommended infection prevention and control measures such as, medical device cleaning, staff training and appropriate storage of medical equipment.
- A risk assessment where necessary, is used to optimise patient and staff safety, such as the use of chlorine based solutions, consulting relevant infection control and prevention policies as required.
- Cleaning schedules and standards are defined, monitored, documented and can be made available.

6.2 Infection Prevention and Control Team have responsibility to:

- The Lead Nurse within Infection Prevention and Control will act as the Trust lead for decontamination of medical equipment.
- Provide education for staff and management on this policy. Act as a resource for guidance and support when advice on controlling the environment and managing of care equipment is required.
- Provide advice on individual risk assessments for controlling the environment and management of equipment decisions.

6.3 Estates and Facilities staff and the Trust contracted repair company must:

- Draw attention to any instances where equipment presented for repair is seen to be dirty / contaminated or where, in the case of repair a decontamination label is not attached.
- Take adequate precautions if any contamination is found internally after equipment covers have been removed. These precautions will be as stated in the Estates Department's Policy for staff working on dirty or contaminated equipment together with additional advice, as required depending on the hazard, and from Infection Prevention and Control team (IPCT).

7. Equipment retained for investigation

In some instances where an item of medical equipment has failed and an investigation is being undertaken it may be necessary to secure the piece of equipment. In this instance it would not be appropriate to decontaminate the equipment as this could affect the investigation.

In this situation the equipment should be stored securely so that it is not used and the Infection Prevention and Control Team notified for advice. It must be labelled as not decontaminated and not for use.

8. Monitoring and audit

The Trust ensures either directly or through its contracts that all staff responsible for cleaning and decontamination of medical equipment have been trained and been given the appropriate knowledge and skills to undertake their role.

All clinical staff will undertake mandatory two yearly Infection Prevention and Control Training.

The Medical Devices checklist will be completed every week by the clinical staff detailing that the equipment is not only clean but functioning. (Some equipment will need to be checked more frequently and this should be documented on a separate form).

The Infection Prevention and Control Link Champions are responsible for ensuring that the environmental audit tool is completed and entered onto the Meridian audit system.








The Infection Control Team will carry out yearly audits to monitor compliance with the policy in line with their annual plan, be part of the annual PLACE audits and undertake spot audits when visiting wards/teams.








The Facilities Contract Monitoring Team will share their audits which are based on the Cleaning Standards with the Infection Prevention and Control Team.









The policy will be reviewed in light of any changes or recommendations to products and equipment use and cleaning.








Various staff visit clinical teams and the re-use of single use devices should be flagged up where identified and reported on the Trust internal reporting system (Datix).

Appendix 1: Commonly used equipment and how to decontaminate it


Individual items	Recommended method of Routine Cleaning
Airway 	SINGLE USE ONLY dispose after use
Ambubag and Mask 	SINGLE USE ONLY dispose after use
Auriscopes Ear piece Auriscopes 	Single use Clinell Universal wipes
Bedpans and urinals 	Disposable recommended or if non disposable automated washer/disinfector at 80 degrees for at least a minute Additional Notes If cleaning required in home setting use detergent solution and dry. If service user has enteric symptoms use hypochlorite solution (see spillage policy) Use PPE and empty contents into toilet
Beds 	Clean between patients with hot water and detergent solution or Clinell Universal wipes If soiling evident then immediately clean and then wipe over with hypochlorite solution (see spillage policy)
Blood pressure monitoring equipment 	Wipe after each use with a Clinell Universal wipe Additional Notes Should have weekly clean as part of Medical Devices checklist
Commodes and toilet seat raisers/surrounds 	Wipe after each use with a Clinell Universal wipe. Use separate wipes for armrests and seats Additional Notes If soiling evident or in an outbreak situation, clean and then wipe over with hypochlorite solution (see spillage policy)

<p>Duvets</p> 	<p>Should have wipe able covers Clinell Universal wipe Detergent solution and dry</p>
<p>Dressing trolley/trays</p> 	<p>Clinell Universal wipe Detergent solution and dry</p>
<p>ECG Equipment -Electrodes -Leads -Machine</p> 	<p>Use disposable electrodes Clinell Universal Wipe for leads and machine or Manufacturers Guidance</p>
<p>Examination Couch</p> 	<p>Clinell Universal Wipe</p> <p>Additional Notes Cover with disposable paper (change between service users and dispose as clinical waste)</p> <p>(Hypochlorite solution if soiled with body fluids(see spillage policy))</p>
<p>Furniture</p> 	<p>Damp dust with a general purpose detergent or wipe with a Clinell Universal wipe</p>
<p>Gym Equipment</p> 	<p>Hot water and detergent solution or Clinell Universal wipes at the end of each session and between people</p> <p>Additional Notes If soiling evident or in an outbreak situation, clean and then wipe over with hypochlorite solution (see spillage policy)</p>
<p>Hair brushes/combs</p> 	<p>Individual service user use only. Wash weekly in detergent solution</p>


<p>Hoist</p> 	<p>Hot water and detergent solution or Clinell Universal wipes</p> <p>Hoists slings must be for individual patient use only and should be laundered when soiled or when the patient is discharged.</p>
<p>Inhalation compliance devices e.g. Volumatic</p> 	<p>For individual patient use only – and must be labelled as such</p> <p>If dirty, wash with warm water and detergent. Rinse and dry thoroughly.</p>
<p>Mattress (and pillows)</p> 	<p>Hot water and detergent solution or Clinell Universal wipes</p> <p>Additional Notes</p> <p>Must be wipeable. Must be cleaned weekly, on discharge or when visibly soiled. If soiling evident clean and then wipe over with hypochlorite solution (see spillage policy)</p>
<p>Medicine pots and oral medicine syringes</p> 	<p>Single use only.</p>
<p>Ophthalmoscopes</p> 	<p>Clinell Universal wipe</p>
<p>Shaving equipment</p> 	<p>Each service user should have their own shaving equipment including electric razors. Clean electric razors as per manufacturers' instructions.</p>
<p>Sputum Pots</p> 	<p>Disposable single use-please discard into the orange clinical waste bins</p>
<p>Stethoscopes</p> 	<p>Wipe with a Clinell Universal wipe after each use</p>

Tablet Computers (e.g. iPads) 	Wipe with a Clinell Universal wipe after each use Additional Notes Must have washable cover and screen protector.
Thermometers 	Tempa-dot thermometer-single use only All others-use single use plastic cover and dispose of after use-wipe with a Clinell Universal wipe
Tourniquet 	Use single use Wipe with a Clinell wipe between uses
Walking Aids 	Wipe with a Clinell Universal wipe between uses by different patients and when dirty
Weighing Scales 	Wipe with a Clinell Universal wipe between uses by different patients
Height Stick 	Wipe with a Clinell Universal wipe between uses by different patients Additional Notes Should have weekly clean as part of Medical Devices checklist
Wheelchairs 	Wipe with detergent and hot water solution or Clinell Universal wipes If soiling evident then immediately clean and then wipe over with hypochlorite solution (see spillage policy) Additional Notes Should be cleaned weekly as part of the medical devices checklist, between uses by different patients and when dirty.


Appendix 2: How to use Clinell Universal Cleaning Wipes



How to use Clinell Universal wipes

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Wear recommended personal protective equipment.
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Remove one wipe from the pack
- 

Working from clean to dirty, wipe in an S shaped pattern, taking care not to go over the same area twice
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Change wipe if it becomes dirty or soiled and discard. Let the surface air dry.

Ensure that all surfaces are cleaned, that includes those underneath and above the working areas.

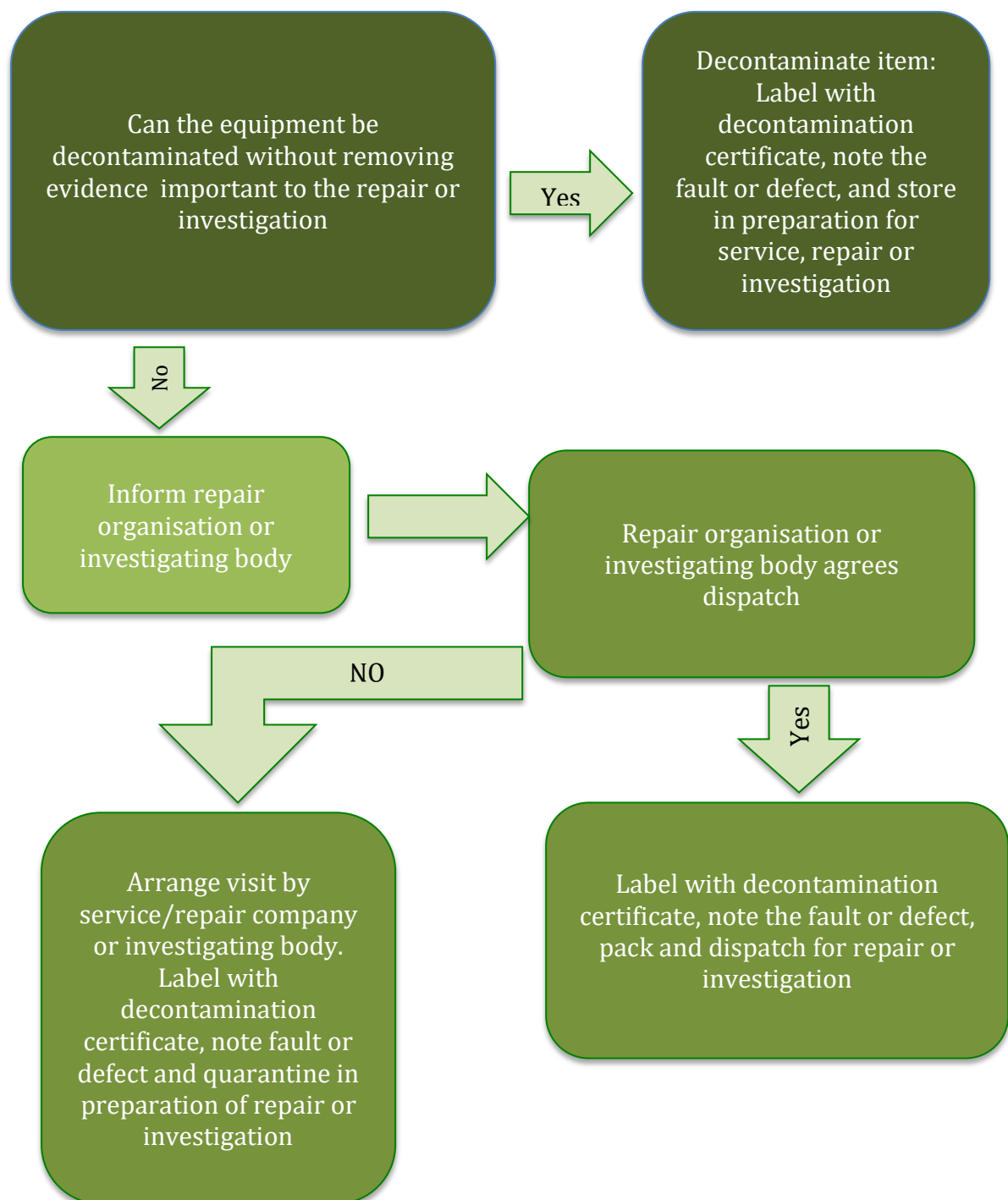
Appendix 3 Infection Risks and Methods of Decontamination

Risk Category	Level of decontamination required Examples	Method of decontamination
High <ul style="list-style-type: none"> In close contact with a break in the skin or mucous membrane. Introduced into a sterile body cavity or circulatory system. 	<ul style="list-style-type: none"> Cleaning and sterilisation e.g. surgical instruments 	<ul style="list-style-type: none"> Sterilisation, autoclave Sterile single-use item
Medium <ul style="list-style-type: none"> In contact with mucous membranes. Prior to use on any immune compromised individual. Contaminated with body fluids particularly virulent or readily transmissible organisms 	<ul style="list-style-type: none"> Cleaning and disinfection or sterilisation e.g. vaginal specula, commodes and bedpan holders 	<ul style="list-style-type: none"> Sterilisation, high level disinfection Autoclave Sterile single use Washer/disinfector Chemical disinfection
Low Risk <ul style="list-style-type: none"> In contact with intact skin Items not in direct contact with patient 	<ul style="list-style-type: none"> Cleaning is usually adequate Disinfection if infection risk is present e.g. washbowls and mattresses 	<ul style="list-style-type: none"> Manual cleaning using detergent and water Automated cleaning/disinfection Disinfectant
Minimal Risks <ul style="list-style-type: none"> Items not in close contact with the patient or their immediate surroundings 	<ul style="list-style-type: none"> Cleaning Manual or automated cleaning e.g. floors, walls, ceilings and furniture. 	<ul style="list-style-type: none"> Damp dusting Wet mopping Vacuum cleaners

For further information regarding how to decontaminate an item contact the Infection Prevention and Control Team

Appendix 4: Handling and decontamination of equipment prior to service, repair return to lending organisation or investigation of an adverse incident

(Note: it is illegal to send contaminated equipment through the post)



Appendix 5 – Decontamination Certificate



Infection Control Certificate

Individual Equipment Repair/Movement Request & Contamination Status

Complete all appropriate sections of this form (equipment will not be accepted without correctly completed form)

For delivery to: Department: Address:		
Asset Number or Serial No.	Equipment Type.	Unit.
Nature of request. Routine Maintenance <input type="checkbox"/> Fault <input type="checkbox"/> Acceptance <input type="checkbox"/> Other <input type="checkbox"/> Give any details related to request: <div style="text-align: right;">Dispose of contents as per procedure. Return with all leads and accessories.</div>		

Contamination Status of Equipment

1. Has the device been exposed to any hazardous materials? **YES** ☐ **NO** ☐

If YES, tick relevant box and specify:

- ☐ Blood, body fluids, respired gases, pathological samples or other biohazards.
Please specify:

2. Has the equipment been decontaminated as per manufacturers' guidelines?

YES ☐ **NO** ☐

If No, then how?

- ☐ Detergent & Sani-Cloth.
☐ Other. Please specify

Requested by (name & position)		Please print	Signed
Decontaminated by (name & position)		Please print	Signed
Date	Time	Tel.No.	