Policy Objective

To provide HCWs with details of the actions and responsibilities necessary to ensure that procedures in relation to decontamination do not pose risks to patients or HCWs and comply with current legislation.

This policy applies to all staff employed by NHS Greater Glasgow & Clyde and locum staff on fixed term contracts.

KEY CHANGES FROM THE PREVIOUS VERSION OF THIS POLICY

- Update reference list
- Update blood spill procedure

Document Control Summary

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Developed by	Infection Control Policy Sub-Group - 0141 201 4931
Related Documents	NHSGGC Standard Precautions Policy NHSGGC CJD Policy NHSGGC Hand Hygiene Policy NHSGGC SOP Cleaning of Near Patient Healthcare Equipment
Distribution / Availability	NHSGGC Infection Prevention and Control Policy Manual and the Internet www.nhsggc.org.uk/infectioncontrol
Implications of Race Equality and other diversity duties for this document	This policy must be implemented fairly and without prejudice whether on the grounds of race, gender, sexual orientation or religion.
Equality & Diversity Impact Assessment Completed	12th January 2009
Lead	Nurse Consultant Infection Control
Responsible Director/Manager	Board Infection Control Manager

Contents

1. RESPONSIBILITIES

HCW

- Follow this policy.
- Attend appropriate training.
- Report to supervisor / manager when they are unable to follow the policy or if they think there is a problem / issue with equipment.

Clinical Managers/Senior Charge Nurses

- Ensure HCWs involved in implementing this policy are trained to do so;
- Ensure HCWs have access to and follow this policy;
- Seek advice from ICT regarding the correct method of decontamination of equipment if required.

Managers

- Support Clinical Managers / Senior Charge Nurses in implementing this policy.

ICT

- Provide teaching opportunities on the implementation of this policy;
- Act as a resource for guidance with regards to decontamination of blood and body fluid spills;
- Keep this policy up to date.

SSD Manager, Estates Manager, Procurement Managers

- Liaise with the ICTs on matters relating to decontamination.
- Seek the advice of ICTs before purchasing new items that require reprocessing and cannot be autoclaved.

Medical Physics Technicians

- Report adverse incidents to appropriate authorities.

2. INTRODUCTION

This policy details the actions necessary for the safe use of medical devices and appropriate use of disinfectants in NHS Greater Glasgow & Clyde to minimise the risk of healthcare associated infection. Medical devices can pose significant hazards to patients if they are reprocessed inadequately or incorrectly. Additionally risks can arise from equipment that should **not be reprocessed, i.e. single-use items**. All HCWs involved in the use of medical devices must be aware of their role and responsibilities towards patient safety and infection control.

3. THE USE OF SINGLE-USE AND SINGLE-PATIENT USE EQUIPMENT

Prior to use, packaging must be checked for single-use markings and decontamination instructions.

Items marked **"Single-Use"** must be used once, on one patient, and discarded as clinical waste.

Items marked **"Single-Patient-Use"** may be decontaminated and only re-used on the same patient provided the manufacturer's instructions on decontamination and re-use are followed. See Section 8 for the Symbol for Single-Use.

4. DEFINITIONS

- ***Decontamination****: the combination of processes, including cleaning, disinfection and/ or sterilisation, used to render a re-usable item safe for further use.*
- ***Cleaning****: is the process, which physically removes large numbers of micro-organisms, and the organic matter on which they thrive.*
- ***Disinfection****: is the reduction of the number of viable micro-organisms on a device to a level previously specified as appropriate for its intended further handling or use.*
- **Sterilisation**: a process, which, if specified conditions are met, renders a device sterile, i.e. free from all micro-organisms & spores. (The theoretical probability of there being a viable micro-organism present on the device shall be equal or less than 1 in a million (BS EN 556-1 2001).

5. RE-USABLE MEDICAL DEVICES (RE-USABLE DEVICES ARE NEVER MARKED SINGLE-USE).

A **medical device** is any piece of equipment that is used on a patient. It includes all equipment, e.g. tourniquets, blood pressure cuffs as well as surgical instruments. Different medical devices require different levels of decontamination. The level of decontamination depends on:

- Where the device has been used;
- The type and amount of contamination;
- The complexity of the device.

This necessitates a risk assessment before reprocessing begins. There are three categories of risk to be considered for the equipment, the procedure and the patient. They are explained in:

- Risk Categorisation for the Decontamination of Medical Devices. See 5.1;
- Surgical Instruments used on patients with or suspected of having CJD. See 5.3.

5.1. Risk Categorisation for the Decontamination of Medical Devices

Risk Category	Description	Recommendation
High-Risk	Items in close contact with a break in the skin or mucous membrane or introduced into a sterile body area.	Sterilisation – Decontamination to be undertaken in a specialist facility, e.g. Sterile Services Dept.
Intermediate Risk	Items in contact with intact skin, particularly after use on infected patients or prior to use on immuno-compromised patients, or items in contact with mucous membranes or body fluids.	Sterilisation or disinfection required. Decontamination to be undertaken in a specialist facility, e.g. Sterile Services Dept or ICT Approved Area.
Low Risk	Items in contact with healthy skin or not in contact with patient.	Decontamination – may be undertaken in the clinical area.

5.2. CJD

There are Technical Requirements for Decontamination for specific instruments in relation to CJD. The rationale for additional precautions in the decontamination of equipment for instruments potentially contaminated with CJD is that normal steriliser temperatures do not inactivate the prion, which is thought to cause CJD. For further information please refer to the NHSGGC CJD policy
http://library.nhsggc.org.uk/mediaAssets/Infection%20Control/CJD%202008%20.doc

5.3. Surgical Instruments used on patients with or suspected of having CJD / vCJD

Risk Category	Action	Comment
Patient suspected of having CJD	Quarantine instruments in designated box. Consider the use of single-use disposable equipment wherever possible.	See CJD Policy
Patient in high-risk group: • patients with antithrombin deficiency, haemophilia or other familial bleeding disorders • recipients of growth hormones or gonadotrophin treatment before 1986 in the UK or at any time whilst abroad • recipients of human dura mater grafts • patients with a family history of familial CJD • patients who have been contacted by public health and told that they are at risk of CJD	If possible decontaminate and retain for the use of the named patient, e.g. endoscopes. All other instruments should be sent for incineration in the yellow waste stream. Consider the use of single-use wherever disposable equipment possible.	See CJD Policy
Patient diagnosed as having CJD	If possible decontaminate and retain for the use of the named patient, e.g. endoscopes. All other instruments should be sent for incineration in the yellow waste stream. Consider the use of single-use wherever disposable equipment possible.	See CJD Policy

5.4. Decontaminating equipment

Each time a piece of equipment is decontaminated it must be examined to ensure it remains fit for purpose and does not pose an infection hazard. Deteriorated equipment that cannot be decontaminated must be replaced.

There must be sufficient equipment to allow for effective decontamination between patients. Where there is insufficient equipment this must be reported.

6. GENERAL GOOD PRACTICE GUIDELINES

Before using any equipment check the manufacturer's instructions regarding reprocess (See section 8 - Symbols on Packaging and their meaning).

- Decontaminate your hands before using any equipment.
- Check the wrapper and identify the markings on the medical device (See Section 8).
- When cleaning medical devices or the environment, follow the manufacturer's instructions for volume of detergent to water.

If wrapped:

- Check the expiry date has not passed. If beyond the expiry date DO NOT USE.
- Check the wrapping is intact. If not intact DO NOT USE.
- Check there is no staining on the wrapper or indication that it has been wet after sterilisation. If staining present DO NOT USE.
- All new equipment must be CE marked. See Section 8 for Symbols.

6.1. Training

Managers must ensure that all HCWs are appropriately trained and have access to detailed instruction illustrating the correct procedure taking into account the manufacturer's instructions. Seek the advice of the ICT when necessary.

7. SYMBOLS USED ON MEDICAL PACKAGING & THEIR MEANINGS

These symbols are the most common ones appearing on medical devices and their packaging. They are explained in more detail in the British and European Standard BS EN 980: 2008 *Graphical symbols for use in the labelling of medical devices*. Symbols appearing on medical devices and/or their packaging must be adhered to. If a user does not understand a symbol, they should first look in the instructions for use or user manual for an explanation.

BATCH CODE

LOT **ABC 1234**

Synonyms for this are:
- Lot number
- Batch number

DATE OF MANUFACTURE

1999-12

DO N OT REUSE

Synonyms for this are:
- Single-use
- Use only once

USE BY DATE

2002-06-30

SERIAL NUMBER

SN ABC123

CATALOGUE NUMBER

REF ABC123

ATTENTION, SEE INSTRUCTIONS FOR USE

STERILE

STERILE

STERILE | EO — Sterilized by Ethylene Oxide

STERILE | R — Sterilized by Irradiation

STERILE |  — Sterilized by Steam or Dry Heat

CE

The CE mark indicates that the device complies with the essential requirements for the performance and safety of medical devices supplied or sold in the UK under UK and EU laws. Items sold as Sterile will have a number under the CE mark.

8. DISINFECTANTS

Disinfectants are chemicals that are subject to the Control of Substances Hazard to Health (COSHH) Regulations (2002). Their use in hospitals or healthcare premises is limited to:

- Disinfection of body fluid spillages.
- Disinfection of heat labile equipment (such procedures must be approved of by the ICT and take place in a designated central decontamination unit).
- Terminal or twice daily cleans of source isolation rooms.
- Terminal clean after outbreaks of infection.
- Routine cleaning during outbreak of infection.

To comply with COSHH, all disinfectants must be kept in locked cupboards. Instructions for use must be displayed close to the cupboard. When using disinfectants the approved procedure must be followed – this is to ensure that the disinfectant works and does not cause harm to HCWs, equipment or the environment. The approved procedure is detailed in 9.4.

8.1. Personal Protective Equipment

Protective clothing should be worn in accordance with Body Fluid Spillage Procedure 8.3 and the local COSHH assessment for the disinfectant used. The HCW prior to any procedure must undertake a risk assessment where any chemicals including DISINFECTANTS and DETERGENTS are used.

8.2. Spillages on Carpets

Please note carpets are not recommended for clinical areas. Carpets in healthcare premises should be able to withstand 10,000 ppm available chlorine. If there are areas that do not meet this standard discolouration will occur during decontamination. Contact ICT if large volume body fluid spillages occur on carpets.

NB Spillages within community healthcare settings

HCWs cannot use disinfectant to deal with blood and body fluid spillages occurring in the patient's own home because of the possibility of damage to carpeting or furnishings. HCWs should wear the appropriate PPE, e.g. gloves and aprons and where possible and remove spillages with paper towels and dispose of in the domestic waste stream. If required, spillage area should be cleaned with detergent, water and paper towels. Gloves and aprons should be removed and disposed of in the domestic waste stream and hands thoroughly washed.

8.3. Body Fluid Spillage Procedure

As part of the **Standard Precautions Policy** spillages of blood and body fluids must be decontaminated as follows:

WET BLOOD SPILLAGES	**DRIED BLOOD SPILLAGES**	**ALL OTHER BODY FLUID SPILLAGES**
Get someone to guard the area whilst you collect the necessary equipment.		
Put on protective clothing, gloves, apron, and eye protection if necessary.		
Apply Chlorine releasing granules, e.g. **ACTICHLOR Granules.** Leave granules over spillage for a minimum of 3 minutes. The spillage should no longer have a fluid consistency. If the spillage is still liquid apply more granules and leave for a further 3 minutes.	Put paper towels over the spillage. Make up 10,000ppm available chlorine disinfectant by putting a 1.7gm tablet of **ACTICHLOR PLUS** into 100mls of cold/lukewarm tap water, safely securing the lid of the container and leave for 3 minutes. Then invert the container to ensure the tablets are dissolved.	Using paper towels – or incopad if necessary – remove spillage contents and discard into clinical waste bag. Make up a solution of a chlorine based detergent – **ACTICHLOR PLUS,** 1.7gm tablet in 1 litre of cold/lukewarm tap water.
Remove spillage with a scoop, if available, or **envelope** spillage in paper towels, and discard into a clinical waste bag.	Pour enough of the solution over spillage to saturate the paper towels and leave for 5 minutes. Still wearing protective clothing, pick up the paper towels and place in a clinical waste bag.	Still wearing protective clothing, pick up the paper towels and place in a clinical waste bag. Wipe over area with chlorine based detergent. Dispose of any paper towels as clinical waste.
Clean spillage area with General Purpose Neutral Detergent.	Clean spillage area with General Purpose Neutral Detergent.	If still required, clean spillage area with General Purpose Neutral Detergent.
Dry the area thoroughly.		
Remove gloves, decontaminate hand, replace gloves and discard the remaining disinfectant, rinse the container, leave to dry and return to the disinfectant cupboard.		
Remove gloves and apron and wash hands thoroughly.		

8.4. Formulae for disinfectant calculations

	ACTICHLOR Tablets	ACTICHLOR PLUS Tablets	Comment
1,000 ppm available chlorine	1.7 gm tablet in 1 litre of cold/lukewarm tap water		**General environmental disinfection**
10,000 ppm available chlorine	1.7 gm tablet in 100 mls of cold/lukewarm tap water		**Disinfection of dried blood spills**
1,000ppm available chlorine in detergent		1.7gm tablet in 1 litre of cold/lukewarm tap water	**General environmental disinfection**

9. ADVERSE INCIDENT REPORTING (MEDICAL DEVICES)

An adverse incident is an event which causes, or has the potential to cause unexpected or unwanted effects involving the safety of patients, users or other persons. Any adverse incident involving a medical device should be reported following the local Incident Reporting System. See http://www.show.scot.nhs.uk/shs/hazards_safety/hazardsp3.HTM for how to report incidents.

10. EQUIPMENT SENT FOR SERVICE OR REPAIR

- Before equipment is presented for repair it must be appropriately decontaminated. Single-use items that are in use and are found to be faulty should be decontaminated before being sent back to the manufacturers or to pharmacy – seek advice from ICT.
- In addition to the repair slip, a Certificate of Decontamination Label must be completed and attached to the item for repair by a suitably trained HCW aware of the likely contamination and whether the equipment has been appropriately decontaminated.
- No equipment will be accepted for repair if visibly soiled.
- No equipment will be accepted for repair if a Certificate of Decontamination has not been completed.

11. AUDIT

Area being audited _____

11.1. Criteria	Achieved	Not Achieved	Not Applicable
HCWs are aware of, and have access to this policy. (Ask two HCWs if they know of the policy and where it is kept)			
HCWs are aware of the differences between single-use and single patient use equipment. (Ask two HCWs)			
HCWs understand the symbols used on packages. (Ask two HCWs)			
HCWs comply with the policy in relation to decontamination of equipment. (Ask two HCWs what they would do with an item from the minimal, e.g. bed, intermediate, e.g. laryngoscope blade and high-risk categories, e.g. surgical instruments).			
Disinfectants are stored in a locked cupboard. Information on how to decontaminate spillages is accessible and in close proximity to the disinfectant. There is a notice on the cupboard on how to decontaminate spillages.			
HCWs know why they must not put chlorine-releasing granules on urine. (Ask two HCWs)			
HCWs follow advice with regard to the precautions necessary prior to sending equipment for service or repair. (Ask two HCWs)			
There is a supply of labels / certificates for decontamination of equipment.			
Totals			

General comment on performance: _____

Agreed action plan: _____

_____

Date: _____

Signed Manager: _____ Signed ICN: _____

Copy of audit to: _____

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