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# **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**

Document Control Summa	Document Control Summary			
Approved by and date	Board Infection Control Committee 12 <sup>th</sup> January 2009			
Date of Publication	12 <sup>th</sup> January 2009			
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	This policy must be implemented fairly and without prejudice			
Equality and other	whether on the grounds of race, gender, sexual orientation or			
diversity duties for this	religion.			
document				
Equality & Diversity	12 <sup>th</sup> January 2009			
Impact Assessment				
Completed				
Lead	Nurse Consultant Infection Control			
Responsible	Board Infection Control Manager			
Director/Manager				

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#### 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

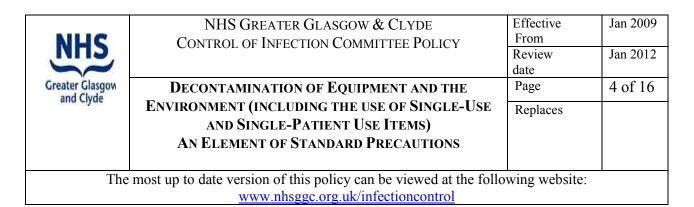
- Provide teaching opportunities on the implementation of this policy;
- Act as a resource for guidance with regards to decontamination of blood and body fluid spills;
- Keep this policy up to date.

# 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.

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## 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.

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## 5.1. Risk Categorisation for the Decontamination of Medical Devices

Risk Category	Description	Recommendation
High-Risk	Items in close contact with a break	Sterilisation – Decontamination to
C C	in the skin or mucous membrane or	be undertaken in a specialist
	introduced into a sterile body area.	facility, e.g. Sterile Services Dept.
Intermediate	Items in contact with intact skin,	Sterilisation or disinfection
D:-1-	particularly after use on infected	required. Decontamination to be
Risk	patients or prior to use on immuno-	undertaken in a specialist facility,
	compromised patients, or items in	e.g. Sterile Services Dept or ICT
	contact with mucous membranes or	Approved Area.
	body fluids.	
Low Risk	Items in contact with healthy skin	Decontamination – may be
	or not in contact with patient.	undertaken in the clinical area.

## 5.2. CJD

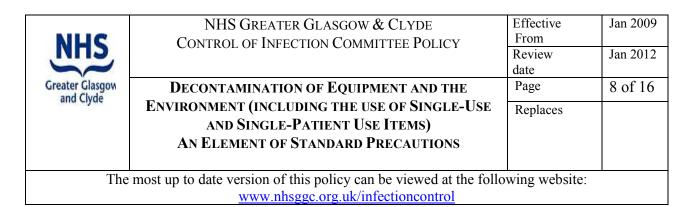
There are Technical Requirements for Decontamination for specific instruments in relation to CJD. The rationale for additional precautions in the decontamination of equipment for instruments potentially contaminated with CJD is that normal steriliser temperatures do not inactivate the prion, which is 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

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# 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
<ul> <li>Patient in high-risk group:</li> <li>patients with antithrombin deficiency, haemophilia or other familial bleeding disorders</li> <li>recipients of growth hormones or gonadotrophin treatment before 1986 in the UK or at any time whilst abroad</li> <li>recipients of human dura mater grafts</li> <li>patients with a family history of familial CJD</li> <li>patients who have been contacted by public health and told that they are at risk of CJD</li> </ul>	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).

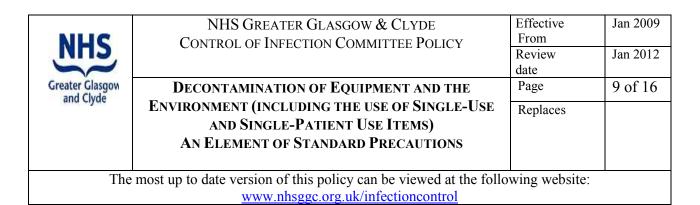
- Decontaminate your hands before using any equipment.
- Check the wrapper and identify the markings on the medical device (See Section 8).
- When cleaning medical devices or the environment, follow the manufacturer's instructions for volume of detergent to water.

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.

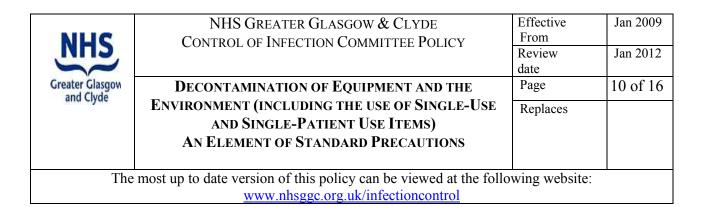
## 6.1. Training

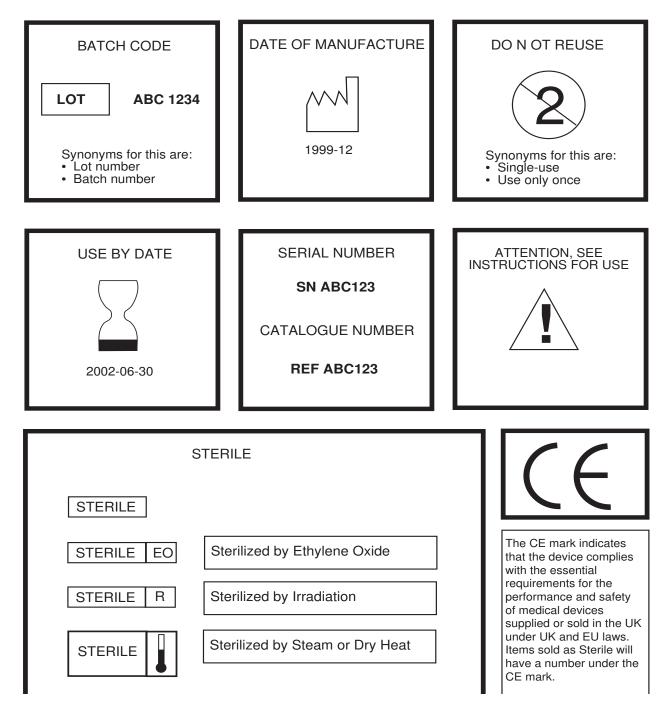
Managers must ensure that all HCWs are appropriately trained and have access to detailed instruction illustrating the correct procedure taking into account the manufacturer's instructions. Seek the advice of the ICT when necessary.



## 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.





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### 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.

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

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## 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 <u>http://www.show.scot.nhs.uk/shs/hazards\_safety/hazardsp3.HTM</u> 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.

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### 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:	
The most up to date version of this policy can b	e viewed at the following website:

www.nhsggc.org.uk/infectioncontrol



#### **12.** References & Bibliography

Advisory Committee on Dangerous Pathogens. Transmissible Spongiform Encephalopathy Agents: Safe Working and the Prevention of Infection. 2003 http://www.advisorybodies.doh.gov.uk/acdp/tseguidance/index.htm

Ayliffe, G.A.J., Fraise A.P., Geddes, A.M. & Mitchel K. 4<sup>th</sup> ed. *Control of Hospital Infection: A Practical Handbook* Chapman & Hall.

Bloomfield S.F., Smith-Burchnell C.A., Dalgleish A.G. (1990) Evaluation of hypochloritereleasing disinfectants against the human immunodeficiency virus (HIV) Journal of Hospital Infection. 15(3):273-278.

Brady R.R., Kalima P., Damani N. N., Wilson R. G., Dunlop M.G. (2007) Bacterial contamination of hospital bed control handsets in a surgical setting: a potential marker of contamination of the healthcare environment. Annals of the Royal College of Surgeons of England. 89: 656-60.

Chitnis V., Chitnis S., Patil S., Chitnis D. (2004) Practical limitation of disinfection of body fluid spills with 10,000ppm sodium hypochlorite. American Journal of Infection Control. 32(5):306-308.

Control of Substances Hazardous to Health. Departments of Health. 2002.

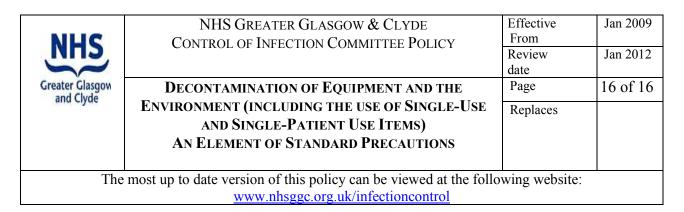
HPS Endoscopy Reprocessing: Guidance on the requirements for decontamination equipment, facilities and Management (Interim Guidance) 2007. http://www.documents.hps.scot.nhs.uk/hai/decontamination/publications/end-001-01-v1.1.pdf

HPS Model Policies. (2008) Management of Care Equipment Policy and Procedure.

HPS Model Policies (2008) Management of Blood and Other Body Fluid Spillages Policy and Procedure.

Health Service Guidelines. HSG(93) Decontamination of equipment prior to inspection, service or repair.

Medical Devices Agency – Reporting Adverse Incidents and Disseminating Medical Device Alerts. 2008/001



Medical Devices Agency DB2000(04) Single-use Medical Devices: Implications and Consequences of Reuse.

National Institute for Health and Clinical Excellence: patient safety and reduction of risk of transmission of Creutzfeldt-Jakob disease (CJD via interventional procedures. November 2006 (Guidance endorsed by NHS QIS for implementation by NHS Scotland)

Siegel J.D., Rhinehart E., Jackson M., Chiarello L. The Healthcare Infection Control Practices Advisory Committee. Guidelines for Isolation Precautions: Preventing Transmission of Infectious Agents in healthcare Settings. CDC 2007.

#### Websites

http://www.advisorybodies.doh.gov.uk/acdp/tseguidance/index.htm

http://www.hps.scot.nhs.uk/haiic/ic/guidelines.aspx

http://www.cjd.ed.ac.uk/