Shropshire Community Health
NHS Trust

Document Details	
Title	Cleaning and Disinfection Policy
Trust Ref No	778-76561
Local Ref (optional)	
Main points the document covers	This policy details guidance on the approved cleaning and disinfection products and methods for skin, clinical equipment and the environment.
Who is the document aimed at?	All staff who work in a clinical environment
Author	Associate Director of Infection Prevention and Control
Approval process	
Who has been consulted in the development of this policy	SCHT Dental Services; Community Equipment Services; Shropshire Rehabilitation Centre; Prison Healthcare; IPC Governance Group Members; Day Surgery Unit A total of three weeks consultation period was allowed and comments incorporated as appropriate.
Approved by (Committee/Director)	Infection Prevention and Control Committee
Approval Date	2 August 2022
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Full Equality Impact Assessment	No
Lead Director	Director of Nursing and Allied Health Professionals and Director of Infection Prevention and Control
Category	Clinical
Sub Category	Infection Prevention and Control
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Distribution	
Who the policy will be distributed to	IPCC Meeting Members
Method	Electronically to IPCC Meeting Members and available to all staff via the Trust website
Document Links	
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Key Words	Cleaning; disinfection;

Amendments History		
No	Date	Amendment
1	July 2022	Updated in line with the new National Standards of Healthcare Cleanliness 2021 Guidelines
2	September 2019	Addition of information for use of wipes
3	May 2019	Update throughout policy. Removal of reference to linen and laundries. Addition of hyperlinks to standard operating procedures and tools. Addition and update of information for decontamination labels.

Contents

1 Introduction

All healthcare staff must be able to identify the most appropriate method of cleaning and disinfection for skin, patient equipment and the patient environment. Medical devices and equipment used in healthcare settings may become contaminated presenting a risk to those handling them and a risk of cross contamination to patients.

Decontamination of medical equipment and cleaning of the healthcare environment is essential to the safe and effective delivery of patient care.

2 Purpose

The policy is intended to provide guidance on the approved cleaning and disinfection products and methods for skin, clinical equipment and the environment. Patients and the wider public should have complete confidence in the cleanliness and hygiene of their healthcare environment. Clinical equipment and the environment will be cleaned and decontaminated appropriate to the level of risk to minimise cross infection in order to ensure safe, clean care.

The principles contained within this policy reflect best practices and should be adopted by all staff working in a clinical environment or within a clinical role in any environment. This policy applies to all services directly provided by Shropshire Community Health NHS Trust (SCHT) and all clinical staff should familiarise themselves with the policy.

This policy does not include the cleaning and disinfection of nasendoscopes and endoscopes. Refer to the relevant Trust policies.

3 Definitions

Term / Abbreviation	Explanation / Definition
AER	Automated Endoscope Reprocessor
CES	Community Equipment Stores
Cleaning	A process which physically removes soil e.g. dust, dirt and organic matter along with a large proportion of any micro-organisms present. Cleaning is an essential prerequisite to effective disinfection or sterilisation. Micro-organisms will not multiply on a clean dry surface.
CCR	Clinical Case Review
COSHH	Control of Substances Hazardous to Health
Decontamination	A combination of processes (including cleaning, disinfection and sterilisation) used to make a re-usable item safe for further use on patients and handling by staff, by reducing the risk of transmission of infectious agents
DIPC	Director of Infection Prevention and Control
Disinfection	A process that destroys or inactivates organisms (but not all bacterial spores) reducing contamination to safe levels. The efficacy of this process is dependent on the effectiveness of prior cleaning. Disinfection can be achieved by moist heat (thermal disinfection) e.g. a combination of cleaning and thermal disinfection is used in bedpan washer disinfectors, washing machines and dishwashers. Chemical disinfection maybe used after cleaning for patient care equipment and the environment when dealing with an infection and or outbreaks. Chemical disinfection is also used when sterilisation is impracticable.
GPD	General Purpose Detergent

IPC	Infection Prevention and Control
MHRA	Medicines and Healthcare Products Regulatory Agency
NPSA	National Patient Safety Agency
PHE	Public Health England
PIR	Post Infection Review
PPE	Personal Protective Equipment
PPM	Planned Preventative Maintenance
ppm	parts per million
RCA	Root Cause Analysis
SaTH	Shrewsbury and Telford Hospitals
SCHT	Shropshire Community Health NHS Trust
SRC	Shropshire Rehabilitation Centre
SIP	Service Improvement Plan
SOP	Standard Operating Procedure
Sterilisation	Sterilisation is a process that destroys or removes all living material. Equipment and materials which come in contact with sterile body areas, broken skin or mucous membranes should be sterilised e.g. instruments, dressings; injection or irrigation fluids

4 Duties

4.1 The Chief Executive

The Chief Executive has overall responsibility for ensuring infection prevention and control is a core part of Trust governance and patient safety programmes.

4.2 Director of Infection Prevention and Control

The Director of Infection Prevention and Control (DIPC) is responsible for the infection prevention aspect of decontamination and is responsible for overseeing the implementation of this policy and to make recommendations for change and challenge inappropriate infection prevention and control practice, reporting to the Chief Executive and the Board.

4.3 Associate Director of Infection Prevention and Control

Every healthcare organisation must have a nominated Decontamination Lead with responsibility for decontamination; either at board level or who has line management responsibility to a senior responsible person at that level. The Associate Director of Infection Prevention and Control is the Trust Decontamination Lead and is responsible for providing specialist advice in accordance with this policy.

4.4 Infection Prevention and Control Team

The Infection Prevention and Control (IPC) team is responsible for supporting staff in this policy's implementation and assisting with risk assessment where complex decisions are required.

The IPC team will ensure this policy remains consistent with the evidence-base for safe practice, and review in line with the review date or prior to this in light of new developments or release of new or updated guidance. The IPC team must be consulted on and are responsible for the approval of any cleaning or disinfection products to be used.

4.5 Managers and Service Leads

Managers and Service Leads have the responsibility to ensure that their staff including bank and locum staff etc. are aware of this policy, adhere to it at all times and have access to the appropriate resources in order to carry out the necessary procedures.

Managers and Service Leads will ensure compliance with this policy is monitored locally and ensure their staff fulfil their IPC mandatory training requirements in accordance with the Trust Training Needs Analysis.

4.6 Staff

All staff have a personal and corporate responsibility for ensuring their practice and that of staff they manage or supervise comply with this policy.

4.7 Committees and Groups

4.7.1 Board

The Board has collective responsibility for ensuring assurance that appropriate and effective policies are in place to minimise the risks of healthcare associated infections.

4.7.2 Quality and Safety Committee

Is responsible for:

- Reviewing individual serious incidents/near misses and trends/patterns of all incidents, claims and complaints and share outcomes and lessons learnt
- Agreeing and escalating key risks/items of concern to the appropriate Directors and/or the Trust Board

4.7.3 Infection Prevention and Control Committee and Infection Prevention and Control Governance Group

Is responsible for:

- Conferring a level of assurance that Shropshire Community Health Trust IPC activities are performing against the statutory requirements relating to infection prevention and control and compliance with The Health and Social Care Act 2008: Code of Practice on the prevention and control of infections (Revised July 2015).
- Advising and supporting the IPC team to carry out IPC activities for the Trust
- Reviewing and monitoring serious incidents, complaints, reports, trends and audit programmes
- Reviewing and sharing learning and lessons learnt from infection incidents and audit findings
- Agreeing and escalating key risks/items of concern to the appropriate Directors and/or the IPC Committee and Quality and Safety Committee
- Approval of IPC related policies and guidelines

5 Control of Substances Hazardous to Health Regulations

The Trust has responsibilities under Control of Substances Hazardous to Health (COSHH) regulations to protect the health of its staff and visitors on the site. The COSHH Regulations require employers to evaluate and control risks to health for all their employees from exposure to hazardous substances at work. This includes microbiological agents and chemicals hazardous to health. A COSHH assessment should be undertaken by a competent person e.g. ward manager. If in doubt about situations not specifically mentioned in this document, please contact a member of the IPC team or the Risk Manager.

6 Cleaning Schedules

- Functional room assessments must be completed and the lead for hotel services informed should the function of that room change, in line with National Standards of Healthcare Cleanliness 2021.
- All clinical areas should have comprehensive cleaning schedules allocated according to the pre-determined Functional Risk of the area concerned. The schedules should specify the item/area to be cleaned, the frequency and the person/s responsible for cleaning.
- Cleaning Charters, including the schedules, should be displayed in the relevant areas.
- Star ratings must be displayed, from November 2022, in line with National Standards of Healthcare Cleanliness 2021.
- Cleaning should be monitored regularly, and frequency determined by audit scores achieved in each area, especially when out sourced through a contract.
- Cleaning audits must be completed during an outbreak within the community hospitals.
- The IPC team may accompany staff during monitoring of cleaning to undertake a validation audit.

7 Level of Decontamination

Cleaning: This is a process which removes large numbers of micro-organisms and organic material on which they thrive. Cleaning should completely remove all soiling. It also enables better physical and chemical contact with a disinfecting/sterilising agent. Cleaning is generally adequate for the decontamination of low-risk equipment but is a vital prerequisite before disinfection and sterilisation of medium and high risk instruments. Cleaning in some instances is combined with chemical disinfection. The process must not be used for items intended for single-use only.

Disinfection: This aims to reduce the number of microorganisms present to a level that is unlikely to cause infection. For practical purposes, disinfection may destroy or inactivate many or all pathogenic microorganisms, but not spores.

It is important to realise that successful disinfection is very much dependent on the number of microorganisms initially present. Therefore, physical cleaning is an important prerequisite to effective disinfection.

Sterilisation: Heat treatment is the most effective routine means of destroying the infectivity of all microorganisms, including BBV, and mainly involves the use of autoclaves (pressure steam sterilisers). Boiling and dry heat ovens do achieve raised temperatures that can kill microorganisms, but they may lack the required level of heat delivery and treatment control offered by steam sterilisers, and so are less reliable.

8 Assessment of Risk

To ensure effective equipment decontamination has taken place, two key factors must be considered:

- The degree of risk posed by the equipment or medical device
- The level of decontamination required to minimise the risk of transferring micro-organisms.

9 Risk Groups

The following table summarises the classification of infection risk associated with decontamination of medical devices and equipment

Risk Group	Definition	Recommendation	Method
High Surgical/Dental Instruments Needles/syringes Cannulae	Items in close contact with a break in the skin or mucous membrane or introduced into a sterile body area e.g. surgical instruments	Sterilisation	Methods include: Steam under pressure (autoclave) Ethylene Oxide Gamma Irradiation *Often single use items*
Medium Commodes Bedpans Nasendoscopes	Items in contact with intact skin, mucous membranes or body fluids In some cases equipment must be sterilised after use but does not need to be sterile at the point of use.	Cleaning followed by disinfection (or sterilisation)	Heat disinfection should always be first choice i.e. washer/disinfector Optional disinfectants include: 1,000 ppm chlorine solution **Ensure cleaning precedes this process**, unless a combined cleaning and disinfection product such as Actichlor plus/Tristel
Low Mattresses Bedframes Cushions Tables Wash bowls Dripstands	Items in contact with healthy skin or not in contact with patient	Cleaning	Neutral purpose detergent and warm (not hot) water or detergent wipes. Thorough drying is necessary. * If contaminated with blood/body fluids, **disinfection is required**

The table above is for guidance and is not absolute. Always refer to the manufacturer's instructions for guidance.

10 Decontamination

Decontamination should always be carried out in accordance with the equipment manufacturer's instructions. Manufacturers have a responsibility to provide information on the compatibility of their particular medical device or equipment including methods and agents for decontamination. It is essential this information is available and followed as inappropriate methods or agents can damage equipment. If the manufacturer is unable to provide this information or it is inadequate, the Medicines and Healthcare products Regulatory Agency (MHRA) should be notified via the Risk Manager.

When new items of equipment are considered for purchase, the manufacturer's advice on decontamination must be sought and training, if necessary, must precede use.

When considering purchase of new equipment the design and fabric must be taken into account for ease of cleaning. The IPC team must be involved in evaluating new pieces of equipment prior to purchase.

Careful consideration should be given to the consequences of the purchase of any item of equipment that is not capable of withstanding disinfection by chlorine or other sporicidal agents.

The Standard Operating Procedure (SOP) for cleaning of commodes can be accessed here https://www.shropscommunityhealth.nhs.uk/content/doclib/13453.pdf

Equipment that cannot be cleaned must be risk assessed on a need-to use basis, or alternatively designated for single patient use and documented as such.

Devices designed for single-use must not be reprocessed for reuse and must be disposed of after use into the appropriate waste stream. All staff must be aware of the single use symbol on packaging.

Devices intended for single-patient use must be designated for use by the specific patient only and be cleaned in the same way as if it were for multiple patient uses, then be disposed of.

Cleaned equipment must be stored separately from used items and away from areas where cleaning is taking place to reduce risk of re-contamination.

Equipment not in regular use should be cleaned at least weekly whilst in storage. Alternatively, some smaller pieces of equipment can be contained in plastic bags or covered to reduce dust whilst in storage e.g. fans, nebulisers, portable suction machines.

10.1 Decontamination Status Bands

In order to protect the health and safety of patients and staff, it is important that Trust staff are aware of the decontamination status of items of medical equipment. In order to reduce risk to a minimum all medical devices and patient equipment must be cleaned immediately following patient use.

10.2 Red Status Bands or Labels

Status Band	Indicates
	The device is externally clean, but is faulty or requires internal clean

A Red Status Band must accompany any medical device prior to return for servicing, repair and maintenance.

- A carrier or supplier of service has the right to refuse to handle items or transport them, if they do not have the Red Status Band in situ.
- Red Status Bands must be completed by the person who cleaned the item immediately following patient use, using the pre-printed details.
- Red Status Bands must be attached to the device by using the self-adhesive tab. This should be placed in a prominent position and fixed tight enough to avoid falling off.
- Red 'dirty equipment' labels are also available to indicate that a piece of equipment has yet to be cleaned.

10.3 Green Status Bands or Labels

Status Band	Indicates
	The device is clean and ready for use

- The Green Status Band/Label is to identify medical devices and patient equipment that has been cleaned and is ready for use.
- Green Status Bands/Labels must be completed by the person who cleaned the item immediately following patient use, using the pre-printed details.
- Green Status Bands/Labels must be attached to the device by using the self-adhesive tab. Green Status Bands should be removed and discarded prior to using the device or equipment.
- Where equipment is used for more than one patient e.g. commode, bath hoist etc., it must be cleaned following each and every episode of use and a new decontamination status band/label completed and attached each time.
- Additionally, equipment should be cleaned as per cleaning schedule.

11 Facilities for Decontamination

Walls, ceilings and floors must be intact to facilitate cleaning. There must be a clear segregation of dirty to clean work processes which may include reception, cleaning and decontamination areas, inspection and storage.

Wash and rinse sinks are required for devices which need to be manually cleaned.

Equipment:

- Wash hand basin
- PPE storage
- Wall mounted cartridge soap dispenser
- Wall mounted paper towel dispenser
- Hands free clinical waste bin
- Wash and rinse sinks with draining boards – for equipment that cannot be cleaned by an automated process
- Dedicated cleaning equipment

A separate dedicated hand wash sink must be provided in this area. The sink should have the following features:

- No overflow
- No plug
- Elbow or lever operated mixer taps
- The flow of the water from the taps does not discharge directly into the waste (plug hole)
- Remotely sited trap

12 Cleaning Methods for Equipment

Equipment may be decontaminated following the principles outlined below for the immersion or non-immersion method dependent on the type of equipment to be cleaned e.g. it would be hazardous to immerse electrical equipment. It is important that the decontamination product is compatible with the equipment, manufacturers' guidelines are sought and followed and the chemical is diluted to the correct strength.

12.1 Immersion Method

- Wear appropriate personal protective equipment (PPE) for the task in hand i.e. heavy duty gloves, apron, eye protection.
- Use a deep decontamination sink designated for decontamination of equipment.
- Clinical hand wash basins must not be used for cleaning equipment.
- Fill the decontamination sink with warm water and the appropriate amount of detergent. Equipment in the low risk category can be decontaminated using a detergent solution. Unless there has been a known infection or outbreak of infection then disinfection is required. Equipment in the intermediate risk category requires cleaning with a detergent followed by disinfection.
- Clean items under the surface of the water where possible (using a disposable brush or disposable cloth) to prevent splashing and creation of aerosols.
- Allow equipment to drain then rinse in fresh warm water to remove detergent residue.
- If either the cleaning solution or the rinse water becomes obviously soiled or contaminated, it must be changed and the process repeated.
- Dry thoroughly with disposable paper.
- Store in a clean and dry place.

- Store hollow items e.g. buckets, inverted between uses.

12.2 Non-immersion Method

Non-immersion methods are appropriate for equipment where items will become compromised by decontaminating in aqueous solutions e.g. electrical and electronic equipment, fixed position or large items.

- Wear appropriate personal protective equipment for the task in hand i.e. gloves, aprons, eye protection.
- Always disconnect electrical items from the mains supply before commencing the decontamination procedure.
- Immerse a disposable cloth in an appropriate solution of detergent and warm water and wring thoroughly.
- Wipe the item thoroughly ensuring that the detergent solution does not enter electrical components where appropriate.
- Repeat using a clean cloth or a folding technique to avoid re-dipping the cloth into the bowl of water.
- Alternatively, detergent impregnated wipes can be used for small pieces of equipment.
- Dry thoroughly with disposable paper.
- When using disinfectant wipes ensure the sufficient contact time is allowed to ensure efficacy.

12.3 Washing Machine

- An industrial washing machine with heat sensor should be available for specific laundering e.g. of items at Shropshire Rehabilitation Service (SRC) and Community Equipment Stores (CES). A household washing machine is not appropriate for use in healthcare.
- Items should be laundered in accordance with manufacturer's instructions.
- The temperature of the wash cycle must be monitored and recorded daily by the user of the machine to ensure the machine operates within the temperature set.
- It must be serviced annually in line with a planned preventative maintenance (PPM) programme.

12.4 Tumble Dryer

- Where a washing machine is used, an industrial dryer should be available for items to be dried prior to storage. A household tumble dryer is not appropriate in healthcare.
- Items should be dried in accordance with manufacturer's instructions.
- The temperature of the drying cycle must be monitored and recorded daily by the user of the machine to ensure the machine operates within the temperature set.
- It must be serviced annually in line with a PPM programme.

12.5 Steam Cleaner

- If a steam cleaner is used to assist in the decontamination of devices with intricate surfaces, appropriate PPE, including apron, heavy duty gloves and face protection should be worn when using this equipment.
- It must be serviced annually in line with a PPM programme.

12.6 Cleaning of Toys provided by SCHT Services

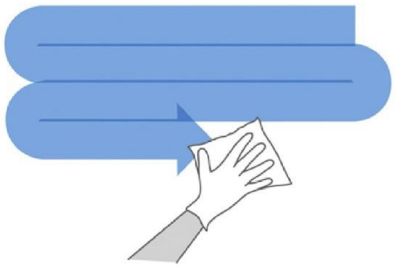
- Where toys and play mats are provided, they must be included on the cleaning schedule
- Staff must be clear about their responsibility for cleaning the toys.
- Toys should be of a wipeable material; soft toys are unsuitable as they cannot be adequately cleaned.
- It may be necessary to dispose of any toys which become contaminated.
- The Trust's Toy Cleaning Policy can be accessed here https://www.shropscommunityhealth.nhs.uk/content/doclib/13295.pdf

12.7 Automated Washer Disinfector in Community Equipment Stores

- Washer disinfectors should be used for the reprocessing and decontamination of equipment and must be fit for their intended purpose
- carry out the processes of cleaning and disinfection consecutively
- be subject to a planned programme of tests to validate their performance
- Washer disinfectors must only be operated by staff who have been trained to do so and are deemed as being an approved operator
- The temperature of the wash cycle must be monitored **and recorded** weekly to ensure the machine operates within the set temperature.
- It must be serviced in line with a PPM programme.

12.8 Use of Wipes for Cleaning

- Wipes should be used according to manufacturers' instructions.
- Use one wipe for each site; some sites may require several wipes e.g. commode
- Unfolding the wipe and using it flat on the surface maximises the area cleaned and minimizes the amount of hand contact.
- Wipe in one direction without retracing the area already cleaned; wipe a large flat surface using an S-shaped pattern

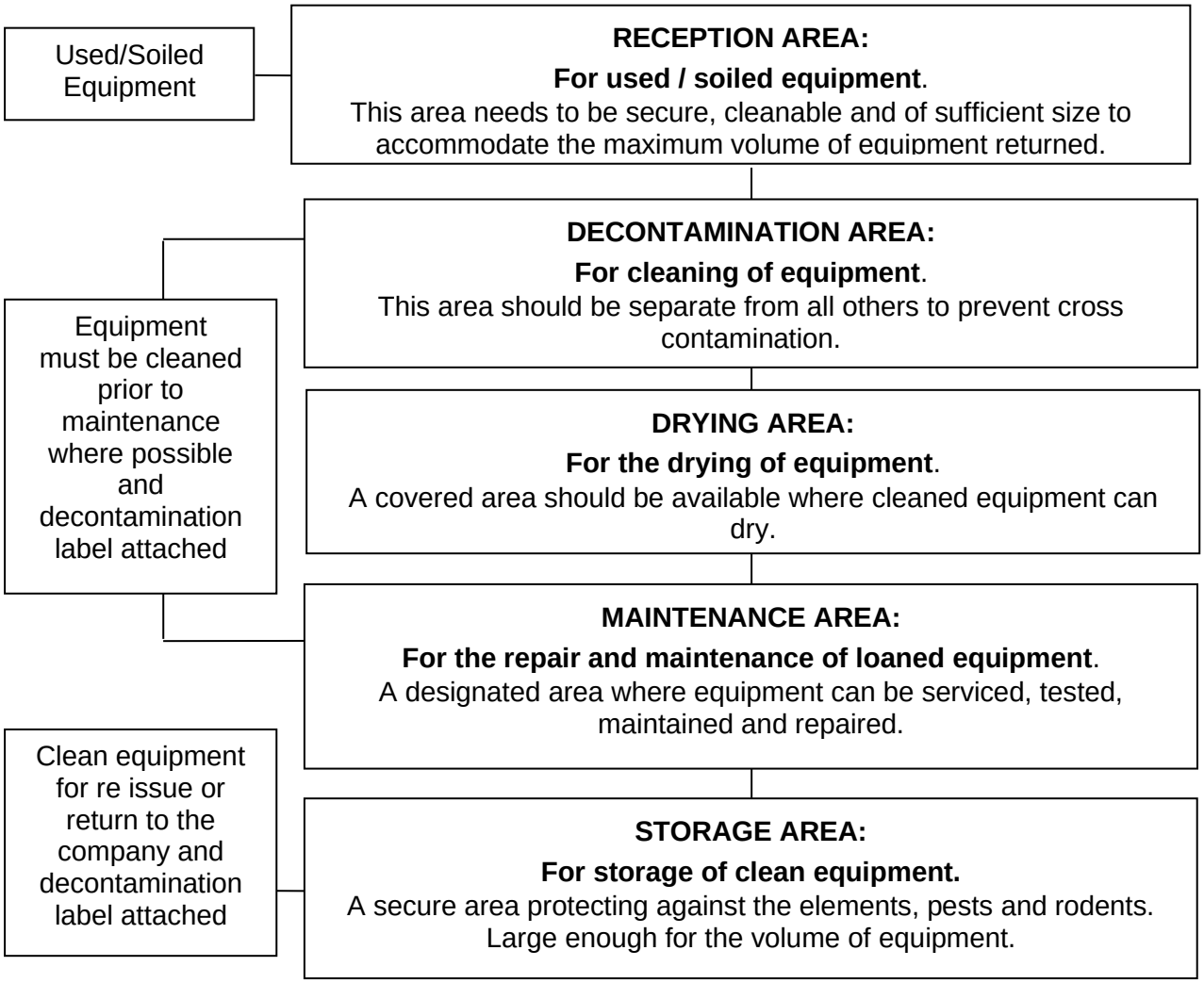


Working from clean to dirty, wipe in an 'S' shaped pattern, taking care not to go over the same area twice.

- Apply the 'one wipe; one site; one direction' principle
- Throw away disposable wipes after each site or if visibly soiled; or, if a single cloth is used, decontaminate between each site or discard and choose a fresh cloth
- Be aware that microbes may be transferred between surfaces (via gloved hands, cloths, etc.)

13 Segregation of Loan Equipment at Community Equipment Stores

Segregation is required to provide a safe environment for the effective decontamination, maintenance and storage of loan equipment. There must never be direct or indirect contact between clean and dirty equipment.



14 Traceability through the process

Due to the volume of equipment going through processing at CES, it is difficult to have traceability of devices and equipment. It is therefore important to have an inspection process for every piece of equipment before going out and any failures in decontamination recorded on Datix with remedial actions taken

15 Environmental Cleaning

General-purpose detergent and water is used for all routine domestic cleaning, in order to remove surface dust and/or dirt. Water must be changed between cleaning rooms, bays and different areas e.g. general ward area and toilet area. Waste water must be disposed of in the dirty utility, sluice, outside drain or toilet **NOT** via hand wash basins. When cleaning is finished, bowls and buckets must be washed with detergent and hot water, rinsed, dried and stored inverted.

Brushes/brooms must not be used in the clinical/ward areas as they disperse micro-organisms into the air in large numbers. Dry mops should be used instead.

The exception is for Podiatry clinics where the Podiatrist has a long handled, enclosed dustpan and brush to sweep up nail debris.

Always ensure:

- Tops of cupboards, windowsills and surfaces are kept clear and clutter free to enable cleaning to take place
- Clinical areas are visibly clean and free from clutter
- Equipment and environment is visibly clean prior to disinfection

- Monitoring, evaluation and availability of cleaning schedules
- Identification and ownership of cleaning responsibilities
- Auditing of cleanliness to monitor performance

15.1 Cleaning of Clinical and Non-Clinical Hand Wash Basins

The cleaning of hand wash basins should be undertaken in a methodical manner to reduce the risk of *Pseudomonas aeruginosa* and other micro-organisms contaminating the taps and water systems.

There is a risk of contaminating tap outlets with microorganisms if the same cloth is used to clean the bowl of the hand basin before the tap. These bacteria could contaminate the outlet, become resident in any biofilm and have the potential to be transmitted to other patients.

Cleaning Method:

- Using a new clean cloth, clean taps, starting at the outlet
- Clean back splash
- Clean basin working from the outside in
- Clean inside surface of the basin
- Remove any hair with a paper towel
- Clean plug and chain, overflow and plug hole/drain
- Rinse and dry the cleaned areas

Refer to the Trust's Standard Operating Procedure (SOP) cleaning of Clinical Hand Wash Basins which can be accessed here https://staffzone.shropcom.nhs.uk/smii/doclib/13456_4.pdf , please see Appendix 1 for the HWB pictural SOP

15.2 Terminal Cleaning

Terminal cleaning is carried out when isolation precautions are stopped and when a patient with a known or suspected infection has left a room or bed space.

When cleaning a clinical area or piece of equipment where there is or has been a patient with a known infection, a combined detergent/chlorine based disinfectant will need to be used e.g. Tristel Fuse

The cleaning of a room/bed space and the furniture must be undertaken in a methodical manner. Unnecessary equipment and personal belongings should not have been allowed to accumulate.

Refer to the Trust's 'I am clean' checklist which can be accessed under "Self-Audit Tools and Checklists" on the IPC staff webpage here SCHT Staff Zone (shropcom.nhs.uk).

The Nurse in Charge/Department Manager will:

- Inform Hotel Services of cleaning requirements as soon as possible.
- Ensure staff wear appropriate PPE for the task in hand i.e. disposable gloves, aprons, eye/face protection.
- Ensure nursing staff remove all bed linen.
- Ensure nursing staff decontaminate all reusable patient equipment or dispose of single use/single patient use equipment.
- Ensure any equipment which requires servicing, repair or maintenance is decontaminated and a Red Status Band attached.
- Ensure partially used paper rolls, toilet rolls, packs of wipes are discarded.

- Ensure toilet brushes are changed when soiled or damaged and in the event of an outbreak, or if used by a patient with a gastrointestinal infection.
- Ensure laminated notices are cleaned and restored following terminal cleaning.
- Ensure domestic staff remove curtains and clean the room, curtain tracks, hand wash basin and ensuite facilities using the appropriate decontamination product.
- Ensure dedicated staff decontaminate all patient care equipment according to their locally agreed cleaning schedules and responsibilities which may include the bed frame, locker/wardrobe, bedside table, chair, mobility aids etc.
- Ensure dedicated staff decontaminate the mattress and cushions according to the manufacturer's guidelines (some will not tolerate chlorine releasing agents and may require cleaning via an outside contractor)
- Ensure Green Status Bands/labels are attached to all patient care equipment.
- Ensure curtains are hung before patient use.
- Ensure the bed is made up last with clean linen.

15.3 Cleaning of Spillages of Blood or Blood Stained Body Fluids

- PPE must be worn prior to dealing with any spillage of blood and/or body fluids.
- If spillage kit available follow manufacturer's instructions.
- If spillage kit is not available e.g. for use in patients' homes, use available detergent and water, paper cloth e.g. kitchen roll and/or detergent hard surface wipes, as appropriate.
- Blood and body fluid spillages in non-patient homes should be directly treated with chlorine releasing agents such as granules. If granules are not available place disposable paper towels over spillage to absorb and contain it before applying solution of 10,000 parts per million available chlorine (ppm av cl) or equivalent such as chlorine dioxide (Tristel) solution to the towels. Follow manufacturers' instructions on contact time or leave for 3 minutes.
- Remove towels and place in appropriate waste stream
- Clean the area thoroughly with detergent and water and dry thoroughly.
- Remove PPE and dispose of in appropriate waste stream.
- Decontaminate hands using soap and water.
- Refer to the Trust's Standard Infection Control Precautions Policy.

15.4 Cleaning Mattresses and Cushions

- Mattresses should be cleaned using general purpose detergent (GPD) and hot water.
- Wipes are not suitable for mattress cleaning.
- Tristel Fuse should be used for mattresses used for infectious patients and/or following an outbreak of infection.
- If mattress/cushion covers require washing they must be labelled and sent to the laundry.
- At CES, covers which cannot be laundered in the washing machine must be cleaned manually on a wipeable surface which is decontaminated between each mattress with hot water and a GPD.

- Ensure staff undertake and record mattress and cushion audits when they are cleaned and on a rolling programme (including a fluid integrity test) using a Mattress and Cushion Audit Tool which can be accessed under "Self-Audit Tools and Checklists" on the IPC staff webpage here SCHT Staff Zone (shropcom.nhs.uk) Mattresses and cushions must be cleaned after every patient has vacated the bed/ bed space; if a patient is using the same bed/mattress for a long period of time cleaning should be undertaken monthly as a minimum. This may involve changing onto another bed/mattress.
- Each mattress and cushion should be indelibly marked for ease of identification and documentation.
- Documentary evidence of the mattress and cushion audit programme should be readily available for inspection.
- Ensure staff are aware of the local procedure for disposal and replacement of mattress and cushions that fail the audit.
- Ensure there is a buffer stock of spare mattress and cushions in the event of failure of the audit.
- Ensure the buffer stock is included on the rolling audit programme.

To Undertake a Fluid Integrity Test:

- Wearing PPE, unzip the cover and visually inspect the cover, around the zip and the mattress.
- Note any odour.
- If any obvious signs of fluid ingress, mattress should be disposed of and replaced.
- Undertake a fluid test by placing paper towel inside the mattress cover, approximately at the midline; make a well in the cover with your fist and pour in approximately 30mls of tap water.
- Agitate the water and then mop up after about 1 minute.
- Inspect the paper towel (inside the cover); if damp or wet the cover has failed the integrity test and the mattress should be disposed of and replaced.
- Remove PPE and wash hands.
- Document findings on the mattress audit tool.

15.5 Enhanced Cleaning During and Following an Outbreak

During outbreaks of infection, the frequency of cleaning may be increased on the advice of the IPC team or ward manager. The ward manager/nurse in charge will liaise with Hotel Services to initiate this process.

15.6 Mop Heads in Community Clinics

Mop heads used in community clinics should be disposable. Wet mops should not be left in the domestic cleaning cupboard.

15.7 Colour Coding of Cleaning Equipment (cloths, mops and buckets)

Colour coding of cleaning materials and equipment ensures that they are not used in multiple areas, therefore reducing the risk of cross-infection.

The National Patient Safety Agency (NPSA) (2007) developed a National Colour Coding Scheme for cleaning materials in order to improve the safety of cleaning, ensure consistency and provide clarity for staff within NHS organisations.

All re-usable and disposable cleaning materials and equipment including cloths, mop heads and stales, buckets and household gloves are included in this policy.

The method used to colour code items should be clear and permanent see table below:

BLUE	**Clinical / General Areas**
YELLOW	**Isolation Areas**
RED	**Toilet, Bathrooms and Sluice Areas**
GREEN	**Kitchen Areas**

16 Personal Protective Equipment

- Gloves must be worn for all cleaning tasks which involve use of chemicals or with a risk of contamination.
- Disposable aprons must be worn if there is a risk of contamination to clothing.
- Gloves must be suitable for the purpose and comply with colour coding systems or be disposable.
- Clinical gloves are not suitable for most cleaning processes unless particular dexterity is required.
- Heavy duty household gloves must be worn in order to protect hands against hot water, from contamination when cleaning toilet areas and prevent irritation of the skin from cleaning products.
- Household gloves can be washed and dried whilst in situ on the hands then removed and hands decontaminated. They should be disposed of if visibly soiled, loss of integrity or following use in an area with known infection.
- The use of gloves does not replace the need for hand washing; hands must be washed with liquid soap and water after removal of gloves. Refer to the Standard Infection Control Precautions Policy to aid glove selection which can be accessed here https://www.shropscommunityhealth.nhs.uk/content/doclib/11452.pdf

17 Cleaning and Disinfection Products

Detergents aid the removal of soiling e.g. dust, dirt and organic matter along with a large proportion of any micro-organisms that may be present. Diluted general-purpose detergent or detergent impregnated wipes should be used for general cleaning of the environment and equipment.

It is important to dry all surfaces and items after cleaning as micro-organisms thrive in moist conditions.

	DETERGENTS		USE
A	General purpose detergent (GDP)	**(a)** **(b)**	General environment and equipment cleaning for all surfaces/areas For use with the automated washer in Community Equipment Services
	Detergent wipes	**(c)**	Small surfaces and equipment
B	Alkazyme W or equivalent		For the cleaning of dental waterlines

17.1 Disinfectants

The efficacy of disinfectants is dependent on the effectiveness of prior cleaning. It is important to be aware of the general points about the use of disinfectants as listed below:

- Anyone using disinfectants must first receive appropriate training from the manufacturer in their safe and effective use.
- Always wear appropriate gloves, aprons and eye protection, if indicated, when using disinfectants.
- Disinfectants, particularly concentrated solutions can be highly corrosive.
- Disinfectants must be used at the recommended concentration i.e. correct dilution and for the recommended action time. If used inappropriately this can cause resistance of organisms in the environment.
- Disinfectants applied to the skin or mucous membranes are called antiseptics.
- Always check the expiry date before use.
- Always replace the container cap securely after use.
- Diluted disinfectants may become inactive over a relatively short time; therefore always use freshly prepared solutions.
- Disinfectant solutions must be made up in a clean container using fresh water and discarded within 24 hours.
- Partially used containers of disinfectant should never be topped-up.
- Ensure the room is adequately ventilated.
- Store disinfectants securely away from patients and visitors.
- Ensure there is a COSHH chemical risk assessment available in the event of accidental or potentially toxic exposure.
- No new disinfectant, antiseptic or sterilisation method must be introduced into the Trust without the specific authorisation of the IPC team.

17.2 Alcohols

Isopropyl alcohol 70% is most commonly used. Alcohol has good activity against most bacteria but not against spores. It has rapid action but does not penetrate well into organic matter and should only be used on physically clean surfaces.

Alcohol 70% wipes do not clean, therefore, cleaning with detergent and water, or a detergent wipe must be undertaken prior to use of alcohol wipes unless the equipment is visibly clean. In most instances cleaning thoroughly with detergent is all that is required.

	ALCOHOL		USE
A	Isopropyl alcohol 70% swab for skin disinfection	(a)	Skin preparation prior to venepuncture
	Isopropyl alcohol 70% wipe for medical device decontamination	(b)	To disinfect urinary catheter sampling ports prior to taking specimens
B	Isopropyl alcohol 70% hard surface wipes e.g. Azowipes		To be used following detergent cleaning for the disinfection of visibly clean hard surfaces when facilities are not available to make up a chlorine disinfectant solution, or for surfaces which cannot sustain the use of chlorine compounds
C	Purevac or Pulijet		To be used to clean dental aspirators including tubing (check aspirator manufacturers' instructions)

17.3 Chlorine Compounds

A Chlorine disinfectant (bleach) is the best choice where the presence of viruses is to be expected, in particular for the disinfection of equipment soiled with blood.

The disadvantages of Chlorine compounds are that they are inactivated by organic material; they corrode metal and bleach fabric.

To overcome the inactivation by organic material and protein it is essential that adequate amounts of Chlorine are present. Chlorine concentrations are expressed as "parts per million" (ppm). Always check the Chlorine concentration in manufacturer's instructions on packets and bottles of commercially produced Chlorine compounds.

	CHLORINE COMPOUNDS		USE
A	1% Sodium Hypochlorite contains 10,000 ppm available Chlorine		To be used on blood and blood-stained body fluid spillage
B	Sodium Dichloroisocyanurate (sometimes referred to as NaDCC) e.g. Actichlor granules, Haz Tabs	(a)	To be used on blood and blood-stained body fluid spillage
		(b)	To be used by prisoners to disinfect their own cell
C	Chlorine Cleaners, e.g. Hospec Sanitiser (always use as Manufacturers' instructions on pack)		To disinfect baths, sinks, wash basins, sluices, toilets, tiles
D	Chlorine Dioxide e.g. Tristel Fuse/Jet	(a)	For decontamination of equipment and environment during episodes of infection and outbreaks, and for terminal cleaning
	Tristel Three Step wipe system	(b)	For decontamination of flexible nasendoscopes
		(c)	For decontamination of vaginal ultrasound probes (X-Ray)

17.4 Chlorhexidine

Chlorhexidine is used as a topical antiseptic skin scrub. It may be used for general skin disinfection, as a surgical scrub and as a pre-operative skin preparation.

Chlorhexidine is contraindicated for use near the meninges, in body cavities, and near the eyes and ears, and for use on babies and young children.

2% Chlorhexidine Gluconate in 70% Isopropyl Alcohol formulation acts rapidly on a broad spectrum of bacteria and has a residual effect for at least 48 hours.

For patients who have sensitivity to Chlorhexidine, Povidone Iodine can be considered as an alternative. See here for more information.

Staff using the Three Step Wipe System for disinfection of nasendoscopes or vaginal ultrasound probes must receive initial training from the Tristel representative. Subsequent updates should be undertaken via the Tristel representative or via the Tristel e-learning portal at http://training.tristel.com/ and entering one of the following access codes:

Bridgnorth BRI012

Oswestry OSW001

Whitchurch WHI008

Ludlow SHR001

	CHLORHEXIDINE		USE
A	2% Chlorhexidine gluconate in 70% isopropyl alcohol for skin disinfection	(a)	Skin cleansing prior to insertion of invasive device or surgical procedure
	2% Chlorhexidine gluconate in 70% isopropyl alcohol for medical device disinfection	(b)	Device decontamination for e.g. rubber caps on injection vials, IV cannula ports, burette ports.

17.5 Iodine Compounds

Wide range of activity against bacteria, viruses and fungi but prolonged exposure needed for any (limited) activity against bacterial spores.

Povidone Iodine 10% in aqueous solution is not a self-sterilising solution and outbreaks of infection from bacteria colonising bottles of this solution are described. Its use is therefore not recommended.

It is less effective than Chlorhexidine for preparation of IV catheter sites.

Sensitivity to Povidone Iodine is rare, but can cause local irritation, especially on burns or broken skin.

	IODINE COMPOUND	USE
A	Povidone Iodine 10% in 70% at alcohol solution	Pre-operative skin preparation of operation site, as alternative to Chlorhexidine (less effective than Chlorhexidine and inactivated by blood)

17.6 Perform-ID

Perform is a high performance disinfectant active against bacteria, fungi and viruses and effective within 10 minutes using a 2% solution. Many disinfectants adversely affect the dimensional stability of certain dental impression materials.

Silicone, polyether and alginate dental impressions can be immersed in Perform solution for 10 minutes without any significant effect on dimensional stability.

	PERFORM-ID	USE
A	Chemical ingredients = Pentapotassium bis(perooxymonosulphate)bis (sulphate), Sodium dodecyl sulphate, Isodecanpolyethyleneglycol (11)	For the decontamination of impressions, orthodontic and prosthetic appliances

	PERFORM-ID	USE
	ether and Sodium carbonate	

18 Consultation

This policy has been developed by the IPC team in consultation with Infection Prevention and Control Governance Group members, Community Equipment Services; Shropshire Rehabilitation Services; Prison Healthcare; SCHT Dental Services.

18.1 Approval Process

The IPC Governance Group will approve this policy and its approval will be notified to the IPC Committee.

19 Dissemination and Implementation

This policy will be disseminated by the following methods:

- Managers informed via Datix who then confirm they have disseminated to staff as appropriate
- Staff - via Team Brief and Inform
- Awareness raising by the IPC team
- Published to the Staff Zone of the Trust website

The web version of this policy is the only version that is maintained. Any printed copies should therefore be viewed as 'uncontrolled' and as such, may not necessarily contain the latest updates and amendments. When superseded by another version, it will be archived for evidence in the electronic document library.

19.1 Advice

Individual Services' IPC Link staff act as a resource, role model and are a link between the IPC team and their own clinical area and should be contacted in the first instance if appropriate.

Further advice is readily available from the IPC team or the Consultant Microbiologist.

19.2 Training

Managers and service leads must ensure that all staff are familiar with this policy through IPC induction and mandatory training undertaken in their area of practice.

In accordance with the Trust's mandatory training policy and procedure the IPC team will support/deliver training associated with this policy. IPC training detailed in the core mandatory training programme includes Standard Infection Control Precautions and details regarding key IPC policies. Other staff may require additional role specific essential IPC training, as identified between staff, their managers and / or the IPC team as appropriate. The systems for planning, advertising and ensuring staff undertake training are detailed in the Mandatory Training Policy and procedure. Staff who fail to undertake training will be followed up according to the policy.

Further training needs may be identified through other management routes, including Clinical Case Review (CCR), Root Cause Analysis (RCA) and Post Infection review (PIR), following an incident/infection outbreak or following audit findings. Additional ad hoc targeted training sessions may be provided by the IPC team.

20 Monitoring Compliance

Compliance with this policy will be monitored as follows:

- Hand hygiene will be audited in accordance with the Hand Hygiene Policy and via peer Hand Washing Assessments

- Cleaning standards within Community Hospitals will be monitored in accordance with the Publicly Available Specification (PAS) 5748 framework
- Environmental and patient equipment cleaning will be monitored as part of local routine cleanliness audits
- Audited locally using the Health Care Associated Infection (HCAI) Prevention audits undertaken by the IPC team and by staff as Self- audits as part of the IPC audit programme
- Additional periodic auditing and self-audits by clinical teams
- The IPC Governance Group will monitor compliance of the cleanliness audit scores and the IPC team audit programme

Numbers of staff undertaking IPC training, which includes Standard Infection Control Precautions, will be monitored by the Organisational Development and Workforce Department

As appropriate the IPC team will support Services' Leads to undertake IPC CCRs/RCAs/PIRs. Managers and Services' Leads will monitor subsequent service improvement plans and report to the IPC Governance Group.

Knowledge gained from CCR/ RCA/PIR and IPC audits will be shared with relevant staff groups using a variety of methods such as reports, posters, group sessions and individual feedback.

The IPC team will monitor IPC related incidents reported on the Trust incident reporting system and liaising with the Risk Manager, advising on appropriate remedial actions to be taken.

21 References

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National Patient Safety Agency (2007) The National Specifications for Cleanliness in the NHS: A framework for setting and measuring performance outcomes. NPSA. London.

National Patient Safety Agency (2009) The revised Healthcare Cleaning Manual. NPSA, London.

The Control of Substances Hazardous to Health Regulations (2002) (as amended). Statutory Instrument 2002, No. 2267. London: The Stationery Office

The Personal Protective Equipment at Work Regulations 1992 (as amended), Statutory Instrument 1992, No. 2966. London: The Stationery Office

National Standards of Healthcare Cleanliness 2021 B0271-national-standards-of-healthcare-cleanliness-2021.pdf (england.nhs.uk).

22 Associated Documents

This policy should be read in conjunction with:

- Community Hospital Cleaning Policy
- Decontamination of Flexible Endoscopes Policy
- Decontamination of Nasendoscopes Policy
- Gastrointestinal Infections Policy
- Isolation Policy
- Standard Infection Control Precautions: Hand Hygiene and Personal Protective Equipment Policy
- Toy Cleaning Policy
- Waste Management Policy
- Water Management Policy
- Water Safety Plan
- Commode Cleaning SOP
- Hand wash basin cleaning SOP
- I am Clean Bedspace Tool
- Mattress and Cushion Audit Tool
- Outbreak policy

23 Appendices

Appendix 1 – Cleaning Sequence of a Hand Wash Basin

Cleaning Sequence of a Hand Wash Basin

1 **Using a clean cloth;** Clean around the outlet and then back along the spout

2 Clean across the fitting followed by the tap lever

3 Clean the inside surface of the sink bowl, followed by the overflow and drain. **Dispose of 1st cloth**

4 Using a **clean cloth,** clean:

- tiles / back panel
- ledges
- visible pipework
- towel / soap / gel dispensers

5 Finally clean the underside or edges of the sink bowl