

Decontamination of the Environment

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Policy

The healthcare environment is routinely decontaminated to provide a safe environment that minimises the transmission of pathogenic organisms.

Purpose

To provide a clean and safe healthcare environment that reduces the risk of exposure to potentially pathogenic micro-organisms.

Scope/Audience

Cleaning Service
All CDHB employees

Associated Documents

- CDHB [IP&C Cleaning Posters](#) (Refer to IP&C Intranet Site)
- Manufacturer's User Guides
- Relevant external documents

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Introduction

Environmental cleaning is one of the fundamental principles of infection prevention and control in healthcare settings.

General surfaces can be divided into 2 groups

- those with minimal hand contact
- those with frequent hand contact (high touch points/surfaces)

Cleaning frequency and methods as well as the products used are determined by risk analysis. For example, high touch surfaces in patient care areas should be cleaned more frequently than surfaces with minimal hand contact.

Contaminated surfaces play an important role in the transmission of pathogens in healthcare. Examples include *Clostridium difficile*, and multi drug resistant organisms (MDRO) such as methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant enterococci (VRE). In these situations cleaning is intensified and an appropriate disinfection used for high touch points/surfaces and equipment to reduce exposure.

Environmental Cleaning Principles

- The routine cleaning of facilities and surfaces in all locations is carried out by the organisation's cleaning service providers
- Environmental cleaning procedures are documented and comply with the Cleaning Standards for Victorian Health Facilities, (2011), as approved by the Ministry of Health
- Warm water and a neutral detergent or a detergent wipe is adequate for cleaning
- The cleaned surface should be left to dry
- High touch points/surfaces are those in close proximity to the patient or those frequently touched in the patient care area such as doorknobs, bedrails, over bed tables
- Approved cleaning products, tools and cleaning procedures which minimise dispersal of micro-organisms in the air shall be used
- Personal protective equipment shall be used in accordance with standard precautions / health & safety recommendations
- Cleaning solutions must be freshly prepared daily as per manufacturer instructions
- Venetian blinds pose an infection prevention and control risk; however where existing blinds are in place this risk is minimised through:

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- Reducing the disturbance of any dust by avoiding raising and lowering the blind
- Regular damp dusting or clean if visibly contaminated. NB: the external cleaning contract does not include routine cleaning of venetian blinds
- 6 monthly removal and cleaning of blinds in conjunction with a spring clean
- Ventilation ducts and radiators should be vacuumed regularly to remove dust and lint build-up
- ‘Spring Cleaning’ of clinical areas (including staff office meeting rooms and clerical offices if located in the clinical area) including steam cleaning of carpets should take place twice a year as arranged between the cleaning contractor and department manager
- Reusable equipment used for cleaning should be cleaned after use and allowed to dry
- There are clear processes that describe the responsibilities for cleaning equipment and environmental surfaces (not included in the Cleaning Contract) at ward/department level
- The Infection Prevention & Control Service shall be included in decisions around cleaning contracts, cleaning products and equipment and cleaning frequencies

Environmental Disinfection

- Environmental disinfection is not routinely required but may be implemented if contamination is suspected or likely from a pathogenic organism that can be spread through the environment e.g. Clostridium difficile, Norovirus and MDRO
- Environmental disinfection is used in the following situations:
 - Terminal cleaning or bed space disinfection e.g. after discharge from Contact Precautions
 - Additional environmental cleaning during an outbreak
 - Disinfection of those surfaces and equipment (high touch points/surfaces) which patients and healthcare personnel touch is necessary to reduce exposure
 - Other situations as directed by the IPC Service
- Environmental disinfection may be achieved through:
 - Thermal disinfection e.g. steam cleaning
 - Use of a disinfectant e.g. sodium hypochlorite solution

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- Cleaning is required prior to disinfection

Blood and Body Fluid Spill Management

- Standard Precautions apply when dealing with any blood or body fluid spills.
- All blood spills should be disinfected using a sodium hypochlorite solution (bleach based disinfectant) and allowed to dry (Refer to [Infection Prevention & Control Recommended Cleaning Products - Dilution and Use poster](#))
- DO NOT use a chlorine based products directly on urine – as this can cause a chemical reaction
- Cleaning should occur before disinfection
- Ensure that all cleaning equipment is cleaned and stored dry.
- Collect all equipment required to clean up the spill. Local spill kits may be available.
- Do not use absorbent granules on textured vinyl /hard floor coverings

Hard/Vinyl Surfaces

Spot Cleaning	Wipe up spot immediately with a damp cloth, tissue or paper towel. Discard into infectious/medical waste bin
Small spills (≤10cm diameter)	Wipe up spill immediately with absorbent material Discard waste into infectious/medical waste Clean area with detergent and water Wipe over with a sodium hypochlorite solution (10,000ppm) and allow to dry
Larger spills (>10cm diameter)	Remove gross material using a scraper or absorb fluid using disposable absorbent material or saturation granules Discard waste into infectious/medical waste Clean area with detergent and water Wipe over with a sodium hypochlorite solution (10,000ppm) and allow to dry Contact contracted cleaning service if further cleaning is required

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1.3.2 Dilution Rates for Sodium Hypochlorite Solutions for Blood Spills

Required Concentration of available Chlorine	Presept Tablets			Chlorwhite
	0.5g Tablets	2.5g Tablets	5.0g Tablets	
10,000ppm	18 tabs in 500ml water	7 tabs in 1000ml water	9 tabs in 2500ml water	50mls (5 caps) in 500mls 100mls (10 caps) in 1litre

1.3.3 Carpets and Fabrics

- Do not use chlorine based products (e.g. Chlorwhite or Presept) on fabrics and carpet as this can cause permanent damage unless the carpet has proven chlorine compatibility
- Ensure that all cleaning equipment is cleaned and stored dry

Step 1 - use for all types of carpet	Absorb spill with absorbent disposable cloth/paper or lightly sprinkle with saturation granules if available Allow time to absorb as much of the spillage as possible Remove the bulk of the spillage using paper towels, rags or a scraper if available Discard waste into infectious/medical waste bag
Flotex Carpets	Step 1 followed by: Rinse the area with liberal amounts of water using a scrub brush Blot up water using absorbent material Discard waste into infectious/medical waste
Other carpet types	Step 1 followed by: Clean with warm water and detergent or an approved carpet cleaner Spot or full steam cleaning by the hospital cleaning service (with the recommended carpet cleaning product as per carpet manufacturer's recommendation) may be required.

Measurement/Evaluation

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Infection Prevention and Control environmental audits demonstrate that wards and departments have access to the correct cleaning and disinfection products and equipment.

Cleaning audits are completed by the Cleaning Service quarterly throughout the CDHB hospitals.

References

1. [Guidelines for Environmental Cleaning in Healthcare Facilities](#) (2003) CDC
2. Cleaning Standards for Victorian Health Facilities, (2011) available from <http://health.vic.gov.au/cleaningstandards/>
3. Australian Guidelines for the Prevention & Control of Infection in Healthcare (2010) available from <http://www.nhmrc.gov.au/node/30290>

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