

Built Environment (Infection Prevention) Policy

Purpose

Construction, redevelopment, renovation and maintenance activities within a healthcare facility impose infection transmission risks, especially to immunocompromised patients. These activities must be managed effectively to prevent patient exposure to dust, debris, contaminants and moisture resulting from work

Policy

A safe environment is ensured during construction, redevelopment, renovation and maintenance activities carried out within all Te Tai o Poutini West Coast and Waitaha Canterbury facilities. There is a clear process for consultation and planning, with infection prevention and control experts, for facility changes including renovation and design of buildings.

Applicability

All Te Tai o Poutini West Coast and Waitaha Canterbury Site Redevelopment, Facilities Development and Planning, Maintenance and Engineering and Information Services Group employees and external contractors involved in construction, renovation and/or maintenance work within Te Tai o Poutini West Coast and Waitaha Canterbury premises

Principles

The [Australasian Health Facility Guidelines \(AusHFG\)](#) are the primary reference documents used for design, construction and renovation of CDHB facilities. AusHFG [Part D Infection Prevention and Control](#) has been written to assist project teams in the planning, design and construction of healthcare facilities.

The Infection Prevention and Control Service shall provide position statements on any variance/addition from the AusHFG Guidelines (refer Appendix B).

Other relevant healthcare design and planning references may be used to support infection prevention and control recommendations in building design e.g. the U.K. NHS Health Building Note 00-09: Infection control in the built environment and the U.S. Facilities Guidelines Institute, 2018

This policy applies only to the infection prevention aspects of a project and in no way detracts from, or substitutes for, other building requirements in relevant legislation and standards. Manufacturer's recommendations for items will be taken into consideration. Where this varies from current practice, discussion with Infection Prevention and Control is required.

Legislative Requirements and National Standards

Te Tai o Poutini West Coast and Waitaha Canterbury are obliged to comply with Health and Disability Services (Safety) Act 2001. The Infection Prevention and Control Service is mandated to ensure compliance

with the Ngā Paerewa Health and Disability Services Standard (NZS 8134:2021) – Outcome 5 Te Kaupare Pokenga Me Te Kaitiakitanga Patu Huakita (Infection Prevention and Antimicrobial Stewardship).

Roles and Responsibilities

Executive Management Team

The role of the Executive Management Team is to ensure that there are processes in place which includes infection prevention specialist input for any building, renovation or maintenance activity according to local and national requirements. They are responsible for ensuring effective, adequate and appropriate resources are in place for the implementation of the Built Environment (Infection Prevention) Policy.

Infection Prevention and Control Executive Committee

The role of Infection Prevention and Control Executive Committee is to provide strategic guidance and direction for CDHB building and maintenance activities. They are responsible for:

- Ensuring the built environment is safe for purpose including all aspects related to surfaces, fixtures fittings and HVAC
- Reviewing international epidemiological trends for infectious diseases and antimicrobial resistant organisms and other categories of concern that may impact on the built environment
- Using data from national;/international reports to inform building strategic planning for future improvements

Infection Prevention and Control Service

The role of the Infection Prevention and Control Service is to support construction, renovation or maintenance staff to ensure a safe environment is maintained during planning and works that may impact on clinical areas. This includes:

- Providing IPC Specialist input to facilities design and planning projects, site renovation and/or maintenance activities within CDHB premises
- Advising on design/ventilation/finished surfaces/cleaning requirements as required
- Advising on environmental microbiological testing post commissioning works e.g. HEPA filtration units
- Reviewing and providing a written response on the required risk mitigation measures via the [Infection Prevention & Control Construction & Maintenance Work Approval Form](#) (Ref 2403909)
- Notifying clinical staff of requirements related to any construction, renovation or maintenance work in their clinical area in relation to clinical items or furniture
- Reviewing works in progress to ensure that all the recommendations are upheld during the works project
- Liaising with the project manager/site manager regarding any breaches in IPC requirements
- Liaising with and undertaking inspections on completion of works with the CDHB Project Manager/Cleaning Contracts Manager

Project Managers

CDHB Project Managers are responsible for notifying the Infection Prevention and Control (IPC) Service early in the process of any new construction or planned work which may impact on clinical areas or clinical support departments such as sterile services and food services.

Facilities/Maintenance and Engineering Staff

Facilities/Maintenance and Engineering staff are responsible for contacting IPC Service when maintenance and engineering issues occur due to potential infection transmission risks e.g.

- sanitiser malfunction
- sewer/flooding issues
- vermin e.g. mites from pigeon guano
- water supply issues
- positive legionella samples

Microbiology Department at Canterbury Health Laboratories

The role of the microbiology laboratory is to provide assistance for environmental testing related to:

- commissioning of high risk areas where HEPA filtration is installed in new facilities
- water quality monitoring e.g. legionella and other bacteria (as applicable)

They are responsible for ensuring results are communicated promptly to departments and the Infection Prevention and Control team as applicable.

Service Managers/Ward Managers/Co-ordinators/Nursing Staff

Staff/stakeholders have a responsibility to be aware of the infection prevention and control risks associated with renovations, repairs, structural works of premises and facilities during any demolition, design, construction, new builds, refurbishment and planned preventative maintenance in the area in which they work and follow any guidance recommended by the Infection Prevention and Control Specialists.

During construction and renovation works, the CNM/Service Manager must ensure that:

- Supplies and equipment are removed from the construction area or covered to prevent contamination from construction dust/debris prior to commencement
- Sterile stock is removed from the area/covered prior to the start of construction/renovation
- Waste including sharps containers are removed from the work area prior to the start of construction

Healthcare Design and Planning

Documentation and implementation of key Infection Prevention and Control principles is critical to the planning, design and construction or refurbishment process. The Infection Prevention and Control Service has a fundamental role at each stage of a redevelopment project and **must** be involved at the earliest opportunity in the design phase, with ongoing liaison required until completion of the facility, construction, renovation or maintenance work.

Risk Mitigation in Facility Design

Implementation of effective prevention and control of infection reduces the transmission risk by promoting an environment where the risk of interaction between the organism and the susceptible host is minimised.

Designers and planners should minimise risks of healthcare associated infection by practising good design principles by:

- Ensuring there are adequate single rooms to facilitate transmission-based precautions in accordance with accepted best practice
- Incorporating adequate ratio of ablution facilities for patient bed numbers
- Providing easy access to adequate hand hygiene facilities
- Incorporating the principles related to clean to dirty flow
- Providing adequate and well organised storage facilities to minimise clutter in the environment and provide safe storage of essential equipment and consumables
- Designing and maintaining suitable ventilation systems which minimise accumulation of aerosols
- Choosing appropriate materials and avoiding surfaces that may become reservoirs for infectious agents
- Ensuring materials and surfaces can be cleaned and maintained easily
- Reducing waterborne infections, including Legionella, through design, disinfection and engineering methods.
- Eliminating other environmental sources of infection e.g. pests, insects, birds, small animals which carry micro-organisms and disposal of litter and waste should be considered throughout the project

Construction, renovation and maintenance

Site induction for building workers/contractors

- Infection prevention and control should be presented as a major component of the OHS induction for building workers, at the time of site induction. This induction process should be documented and signed off by each participating worker and held on file
- Monitoring worker compliance with procedures. Any concerns should be raised with facility project manager. The results of this monitoring should be communicated to the workers routinely through the project manager /site foreman
- A systematic approach should be in place to ensure the management of major breaches
- Installation of barriers to contain the impact of construction
- Inspections by the nominated representatives during the construction of the barriers
- Documenting all inspections, including a non-conformance system for defaults, complete with a corrective and preventative action loop

Risk Management

A formal approach is required for risk identification and management strategies as part of building and renovation activities (Refer Appendix A).

The risk-management approach should address as a minimum:

- the extent of work
- the identification of the patient population at risk
- the location of the patient population in relation to the site and construction
- the air flow and pressure differentials in the area (differentials may be varied by external wind strength and direction)
- ventilation systems and potential impact
- water systems and quality
- traffic and supply routes
- the requirement for air monitoring if applicable
- the identification of possible contaminants and their locations.
- the requirements for extra cleaning services
- precautions required for staff and contractors

Project Managers/Representatives for any construction, renovation or maintenance work are required to complete an [Infection Prevention & Control Construction & Maintenance Work Approval Form](#) and forward to the IPC Service prior to commencing work.

Work flow

Work flow and agreed timescales are important to prevent incidents that potentially put patients, staff and visitors at risk. Where work is being undertaken whilst patient services continue, consideration must be given to the level of dust produced and appropriate dust control be put in place in addition to the cleaning programme.

Frequent monitoring of the area is required to highlight any problems or systems failures with regards to cleaning during the project

Demolition and disturbance

When any demolition work is indicated, precautions are taken to minimise the level of dust according to the amount of dust anticipated. Any disturbance of the environment caused by maintenance, demolition, construction and renovation presents risk of infection to the occupants including:

- Exposure to air-borne micro-organisms and fungal spores such as *Aspergillus* species
- Water entry and absorption into building materials leading to increased microbial contamination
- Access for insect pests and vermin
- Increased traffic through the facility
- Dust and debris in patient care areas

Barriers are required for dust control where work is to be carried out near patient areas as per Appendix A (Table 4). The following measures are to be followed:

- Project Managers are required to undertake daily checks of dust proof barriers to ensure they are intact and tacky mats are changed regularly. A visual inspection for dust/tracking is required.
- The construction/demolition area should be sealed fully with erection of plastic/dry wall barriers around the site. A dust barrier should be created from floor to the 'true ceiling' and edges sealed; for more long-term projects consider a solid sealed barrier.
- Covering all air intake and exhaust vents in the 'construction zone' to prevent the introduction of contaminated air into the healthcare environment may be applicable including heating, ventilation and air conditioning (HVAC) systems.
- It may be necessary to create an anteroom at the entrance / egress for construction workers
- Windows, doors, vents, plumbing penetrations, electrical outlets and any other source of potential air leak should be sealed in the construction zone (apart from essential access points) and/or as advised by IPC Team member
- Air pressure in the construction zone should be negative compared with adjacent areas; an extract fan may be used for this purpose. Air from the construction zone should be exhausted directly outside, if this is not possible it should be filtered through HEPA filters if re-cycled.
- Redirection of construction traffic away from patient areas with workmen having separate access to the construction site where possible.
- Wherever possible patients, staff and visitors should not enter construction/ demolition sites or where debris or dust is being removed from the works area
- Regular removal of construction debris from the site in sealed containers should be done at least daily. All skips used for temporary storage and disposal of waste materials should be covered to prevent dust release
- Cleaning – damp dusting is recommended. Vacuum (HEPA) and wet mop area as needed to maintain an environment as free from dust as possible. Increase the existing cleaning regimes to prevent dust accumulation on surfaces, ceilings and air duct grilles
- Multi-layer sticky/tacky mats to be used at site entrance/egress to trap dirt, dust and possible contaminants from footwear and wheels before entering clean areas. These are to be changed frequently.
- Overshoes/overalls may be required including facilities for their disposal and facilities for the decontamination of hands following their removal.
- Alternative routes should be identified during the planning stage.

Communication with all parties including the IPC team is essential through all stages of demolition and construction work.

On work completion

- Upon completion the contractor is responsible for the first level of cleaning
- Thereafter the facilities team are to arrange cleaning/disinfection of the area via the contracted cleaning service
- In categories III/IV (refer Appendix A, table 4), inspection by a member of the IPC Team is required to determine if additional cleaning is required before proceeding to a disinfection of the area

Scheduled Environmental Monitoring

Legionella testing

Cooling towers are used in air conditioning systems to remove heat (through evaporation) collected from air-conditioned spaces.

Reticulated water is sampled monthly and reported to Maintenance and Engineering Dept who are responsible for implementing any required action.

Policy Measurement

The Charge Nurse Manager will check the work area on a daily basis and raise any concerns regarding dust migration/containment to the IPC Specialist/s

Upon completion, the project manager will arrange a meeting on site with IPC Specialist/s and cleaning contracts manager to review the area prior to handing over for use.

Associated Material

- Appendix A: Construction Risk Assessment and Action Plan (see below)
- Infection Prevention & Control Construction & Maintenance Work Approval Form - Ref 2403909
- Health and Safety at Work Policy – Ref 2403857
- Standard Precautions - Ref 2400384
- [A19 Requirements for Contractors, M&E Department](#)

References

- Standards New Zealand. (2021). *Ngā Paerewa Health and Disability Services Standard (NZS 8134:2021)*. Standards New Zealand.
- Australasian Health Facility Guidelines. (2022). *Standard Components*. Accessed on 30 June 2022 at <https://www.healthfacilityguidelines.com.au/standard-components>

- Australasian Health Facility Guidelines. (2016). *Australasian Health Facility Guidelines: Part D- Infection Prevention and Control (Revision 7.0)*. Accessed on 30 June 2022 at https://aushfg-prod-com-au.s3.amazonaws.com/Part%20D%20Whole_7_Nov%202020%20Reference%20Edit_1.pdf
- Black Country Partnership, NHS Foundation Trust. (2019). Infection Prevention and Control in the Built Environment. Accessed on 30 June 2022 at <https://www.bcpft.nhs.uk/about-us/our-policies-and-procedures/i/1179-infection-prevention-and-control-assurance-sop-15-infection-prevention-and-control-in-the-built-environment/file>
- Health and Safety at Work Act 2015. Accessed on 30 June 2022 at <https://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976660.html>

Appendix A - Construction Risk Assessment and Action Plan

STEP 1 - IDENTIFY THE CONSTRUCTION ACTIVITY TYPE

Table 1: Definitions of the Construction Activity Types

Type A	Inspections and general upkeep activities: includes but not limited to: removal of ceiling tiles for visual inspection (limited to 1 tile per 5 m2); painting (but not sanding); installation of wall covering; electrical trim work; minor plumbing; any activities that do not generate dust or require cutting into walls or access to ceiling other than for visual inspection.
Type B	Small scale, short duration activities, which create minimal dust: includes, but is not limited to, installation of telephone and computer cabling, access to chase spaces, cutting into walls or ceiling where dust migration can be controlled
Type C	Any work that generates a moderate to high level of dust: includes, but is not limited to, demolition or removal of built-in building components or assemblies, sanding of wall for painting or wall covering, removal of floor covering/wallpaper, ceiling tiles and casework, new wall construction, minor ductwork or electrical work above ceiling, major cabling activities.
Type D	Major demolition and construction projects: includes, but is not limited to heavy demolition, removal of a complete ceiling system, and new construction.

STEP 2 – SELECT THE PATIENT RISK GROUP

Table 2: Infection Control Risk Groups

Group 1 - Low	Group 2 - Medium	Group 3 - Medium/High	Group 4 - Highest
<p>Office areas</p> <p>Non-patient/low risk areas not listed here</p>	<p>All patient care wards, units, services and other areas <u>not listed under Groups 3 or 4.</u></p> <p>Examples: Linen Services Cafeteria and kitchens Materials management Allied Health Admissions/discharge services General outpatient services Laboratories not specified under Group 3 Public corridors used by patients and to transport linen & supplies Mortuary</p>	<p>All patient care wards, units, services and other areas <u>not listed under Groups I or II.</u></p> <p>Examples: Emergency department General medical and surgical areas Short stay assessment units Short stay acute admission e.g. CAA, MAU Medical Imaging including MRI / Echocardiography Spinal Unit Birthing Suite Delivery/labour rooms Paediatrics (except paediatric ICU) Long stay-sub-acute units</p>	<p>All speciality high dependency units</p> <p>Examples: Adult / paediatric, NICU Oncology wards / services Transplant Units Coronary Care Unit Radiation therapy Chemotherapy Pharmacy sterile/ cytotoxic rooms All perioperative areas including Recovery, Anaesthetic and pump areas Cardiac catheterisation / Angiography rooms DSA / Interventional Radiology</p>

		Pharmacy Gastro Intestinal investigation Unit Respiratory Wards Renal and Dialysis Units Hyperbaric Unit Oral Health Procedure rooms Nuclear medicine	Outpatient invasive procedure rooms Sterile Services
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STEP 3 - DETERMINE THE CONSTRUCTION CLASSIFICATION CLASS

Select from the matrix below to determine the construction classification class.

Implement the appropriate infection control construction guideline based on the construction activity type as identified using the construction classification matrix (Table 3).

Table 3: The Construction Classification Matrix

Construction Activity Risk Level	Type A	Type B	Type C	Type D
Group 1	Class I	Class II	Class II	Class III/IV
Group 2	Class I	Class II	Class III	Class IV
Group 3	Class I	Class III	Class III/IV	Class III/IV
Group 4	Class III	Class III/IV	Class III/IV	Class IV

STEP 4 - IMPLEMENT THE INFECTION CONTROL CONSTRUCTION GUIDELINES

Infection control construction guidelines (Table 4; p.11) outline procedures to control the release of airborne contaminants resulting from construction, demolition or renovation activities.

Table 4: The Infection Control Construction Guidelines

CLASS I	<ol style="list-style-type: none"> 1. Execute work by methods to minimise dust from construction operations. 2. Immediately replace any ceiling tile that has been displaced 3. Clean work area on completion
CLASS II	<ol style="list-style-type: none"> 1. Isolate HVAC as required / provide active means to prevent air-borne dust from dispersing in atmosphere e.g. water mist 2. Seal unused doors with duct tape 3. Block off and seal air vents 4. Contain construction waste before transporting in tightly covered containers. 5. Wet mop / vacuum with HEPA filtered vacuum before leaving work area. 6. Place sticky dust mat at entrance and exit of work area – replace when no longer effective. 7. Project Manager to arrange with cleaning service to clean area
Obtain approval from IP&C Service before construction begins.	
CLASS III	<ol style="list-style-type: none"> 1. Isolate HVAC system in area where work is being done to protect the duct system. 2. Erect and seal hoardings/barriers and anterooms around work site. 3. Place sticky dust collection mats at entrance/exit of work area, replace regularly. 4. Contain construction waste before transporting in tightly covered containers, or institute appropriate dust suppression methods. 5. Airflow patterns need to be considered to minimise dust dispersion. 6. Wet mop or HEPA vacuum twice per 8 hour period of construction activity or as required 7. Contractor to undertake initial clean including wet mop of area 8. Do not remove barriers from work area until the completed project is thoroughly cleaned. 9. Remove barrier materials carefully to minimise spreading of dirt and debris associated with construction. (Barrier material must be wet wiped, HEPA vacuumed or water misted prior to removal.) 10. Project Manager to arrange terminal clean of area with cleaning service and final inspection by IP&C

CLASS IV	<ol style="list-style-type: none"> 1. Isolate HVAC system in area where work is being done to protect the duct system. 2. Erect and seal hoardings or barriers around work site. 3. Construct anteroom for all personnel to pass through for entry/exit from room. Clean regularly 4. Airflow patterns need to be considered to minimise dust dispersion. maintain negative pressure and exhaust externally where possible 5. Place sticky dust collection mat at entrance and exit of work area and replace regularly 6. Seal holes, pipes, conduits, and punctures appropriately. 7. Contain construction waste before transporting in tightly covered containers, or institute appropriate dust suppression methods. 8. During demolition, dust producing work or work within the ceiling space, disposable shoes/coveralls should be worn and removed prior to exit 9. Vacuum work area with HEPA filtered vacuums at least twice daily and as necessary. 10. Contractor to undertake initial clean including wet mop of area 11. Do not remove barriers from work area until the completed project is thoroughly clean 12. Remove barrier materials carefully to minimise spreading of dirt and debris associated with construction. (Barrier material must be wet wiped, HEPA vacuumed or water misted prior to removal.) 13. Project Manager to arrange terminal clean of area with cleaning service and final inspection by IP&C.
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Appendix B

Infection Prevention & Control Variations from Australasian Health Facilities Guidelines

This document provides specific Infection Prevention and Control recommendations which may vary from the Australasian Health Facility Guidelines (AUSHFG) related to construction, renovation and/or maintenance projects.

1. Wash Hand Basins (AusHFG 02.03)

- should be positioned adequate distance from adjacent shelving or storage areas to prevent potential contamination from splash risk
- must be separate in areas where food preparation occurs
- must not include an overflow outlet
- must not be fitted with an integrated / engineered plug device

1.1 Hand basin types

- TYPE A basin: e.g. Caroma Vitreous China Hospital Basin, Nominal size 600mm x 515mm is an accepted style in CDHB facilities
- Type B e.g. Gentec GTSANH560B, Clinical basin
- Type C

1.2 Pedestal Wash Hand Basins

The use of pedestal basins are permitted provided that:

- the pedestal is enclosed in a cowl of impervious material which withstands frequent washing and does not deteriorate through wear and tear during cleaning on or around the area
- the pedestal is positioned on the back wall to reduce the requirement for cleaning behind the basin

1.3 Stainless Steel Sinks

Must be fitted with an approved sluice guard if used in a dirty utility room for disposal of body fluids

1.4 Taps

- Tap spouts must be positioned so that water flows forward of the drain aperture to minimise back splash
- Elbow-operated. Elbow operated taps must be positioned so that there is elbow room behind the taps – i.e. there is enough room between the wall and the back of the tap unit for the arm.

Sensor Taps

- For scrub bays and Type A basins, it is preferable to locate the sensor device adjacent to the hand basin rather than under the tap.
 - The Galvin sensor tap is the accepted model for new build facilities
 - Sensor taps must incorporate a self- flushing capability

Giving the tap the elbow? An observational study, Journal of Hospital Infection, Pages 328-330. M. Weinbren, L. Bree, S. Sleight, M. Griffiths

Pros and cons of different types of outlet

Sensor outlet

Pros

- Removes the risk of touching outlet.
- Can be programmed to flush automatically little-used outlets.

Cons

- More complex internal components increasing risk of biofilm formation.
- Flushing of outlets may be difficult as individual must stand in front continually activating sensor.
- More complex increasing risk of malfunction.
- No consistency to location of sensor.
- Requires electrical supply.
- Risk of contaminating outlet with hands if unfamiliar with location of sensor.

Elbow-operated outlet

Pros

- Simpler design potentially lowering risk of biofilm formation.
- Increased reliability.
- Potential to use outlets without a thermostatic mixer valve but opportunity rarely realized.

Cons

- Potential to recontaminate hands if not used correctly.
- Frequently set up incorrectly (tap handles set at wrong angle).
- Staff often only operate one of the hand levers (usually the blended water), creating a functional deadleg on the cold side.
- Often used in conjunction with a thermostatic mixer valve.

1.5 Plugs

- Plugs are not recommended - however where there is a specific request for a plug, these must not be attached to the basin, but be supplied as a single plug to enable adequate decontamination

1.6 Soap Dispensers

- A single soap dispenser is required at every hand basin
- An additional antimicrobial dispenser may be located in all treatment / procedure rooms e.g. type A basin

1.7 Paper Towel dispensers

- Clinical areas to be fitted with interleaved disposable paper towel dispensers
- Paper drum rolls are only suitable for kitchen areas

1.8 Alcohol Based Hand Rubs

- Should be positioned away from the hand basin area
- Should be included at beverage bays and in kitchen areas where there is no access to separate hand washing facilities

2. Baths and Showers (AusHFG 02.05)

2.1 Baths

- Baby Baths should be integrated with the bench top
- Plugs must not be attached to the bath, but be supplied as a single unit to enable adequate decontamination

2.2 Showers

Shower bases

- Shower bases should be continuous and of a design which enables the healthcare worker to assist the patient in and out of the shower avoiding unnecessary strain to either when using a shower chair/bed i.e. the slope of the ramp must be considered and the materials must be appropriate to avoid slip risk

Shower Handsets and Rails

- The shower rose should be of a design that the jets are flush mounted against the head of the shower where possible (should not have massage points). A removable head is the preferred to enable access for cleaning
- The shower hose texture should be of smooth design
 - Hand showers should be installed so they don't touch the shower tray / floor. In some areas, additional length may be required e.g. spinal patients/plastics – a retractable hose or hooks should be considered
 - The RADA SF1 10 EV Shower kit has been approved by IPC for use in existing CDHB facilities. In new build facilities, there may be a variation to this.

3. Air Conditioning, Ventilation and Water Systems (03.01)

3.1 Portable Air Cleaners

- May be located in areas where additional air purification is required e.g. areas identified with minimal air circulation e.g. lifts and/or clinical areas where indicated pandemic
- A routine maintenance schedule should be available and this be available on request via M&E

3.2 Ceiling Fans

- Must be accessible for routine cleaning
A routine maintenance schedule should be available and this be available to the CNM/Service Managers

3.3 Water systems

- All hot water taps should be run daily for at least 1 minute
- Where clinical areas are closed for a week or more, run hot taps for at least 5 minutes.

4. Sanitisers and Bowl Disinfectors

4.1 Bowl Washer

- These washers are designed for low level disinfection of items used on intact skin e.g. wash bowls, tooth mugs
- They do not meet requirements for sanitising of items which come in contact with gross human body fluid
- The MEIKO TOP CLEAN 60 is the accepted model for new build facilities or replacement of bowl sanitisers.
- TopClean 60 attains an A060 value as it maintains a minimum temperature of 70°C/10mins. This meets the requirements for thermal disinfection where there is no risk from human waste.
- The TopClean 60 does not meet requirements for sanitising bedpans or items used to contain gross body fluids and must not be installed if this is the intended purpose.

4.2 Flusher Sanitisers

- Flusher sanitisers are intended to be used for emptying, flushing, cleaning and thermal disinfection of containers used for holding human waste
- They are required to meet ISO883-3 standards and attain an A0600 value as it maintains a minimum temperature of 80°/10mins

5. Surfaces and Finishes (AusHFG 04.00)

5.1 Curtains

- Not be a heavily-textured fabric
- Able to withstand commercial laundering (71°C)
- Non-shrinkable fabric (samples will be laundered at CDHB commercial laundry to test shrinkage and heat tolerance)
- Privacy curtains around beds not pleated
- Window curtains pleated at top
- Be easy to remove and hang
- Be able to be labelled with clinical area identifier (preferably sewn in)

Antimicrobial Impregnated Fabric Curtains:

- IPC do not promote for routine use
- May be used in areas with high turnover of infectious patients – always consult with IPC first

Disposable Curtains

- In some situations, disposable curtains may be installed where access to laundry facilities are not readily available.

Roller Blinds:

- Must be made of an impervious material that can be wiped clean
- Able to withstand the approved hospital grade disinfectant product e.g. Clinell Universal Wipes / Oxivir TB
- Able to be commercially cleaned if grossly soiled
- Be designed to allow easy cleaning
- Designed to discourage accumulation of dust i.e. few horizontal surfaces

Venetian Blinds:

- IPC are not advised for clinical wards/departments as they attract dust and are difficult to clean.
- Where venetian blinds are considered necessary, these must be contained in double glazing.

5.2 Floors (04.03)

Carpet:

- Recommended for non-clinical areas only where there is no risk of blood or body fluid contamination
- Manufacturer must provide further information on carpet properties including backing / porosity / replacement process and cleaning

Vinyl:

- Nil concerns

6. Ward based dishwashers

- Dishwashers are used in wards for washing lightly soiled crockery and cutlery (e.g., cups, jugs) or used to sanitise toys. The temperature needed to destroy infectious diseases present on an eating or drinking utensil or a food contact surface is not clearly indicated in the literature.
- Non-commercial (domestic) dishwashers may be used if they meet certain parameters of time and temperature. However current NZ food safety guidelines do not state the requirements in relation to time and temperature.

The ANZFS code states the following:

Domestic dishwashers that met certain criteria could provide the same cleaning and sanitising outcome as a commercial dishwasher. These criteria were that:

- (a) dishwashers should have properly functioning temperature-activated sanitising cycles that have to sense a temperature of 65.6°C or higher before the machine advances to the next step; or
 - (b) dishwashers with either no sanitising cycle or a time-controlled sanitising cycle and forced airflow drying should only be operated with inlet water temperature above 68°C.
- Domestic dishwashers that met the above criteria were able to provide an equivalent outcome because, although they operated at lower temperatures, their cycles were much longer — about one hour in relation to domestic dishwashers used to sanitise crockery”

Suggested models include:

- ✓ Starline XU
- ✓ Asko D5906

Additional resources:

- Food Standards Australia & New Zealand. (2016). *Food Safety Standards* (Chapter 3). Accessed on 30 June 2022 at:
<https://www.foodstandards.gov.au/publications/documents/Appendi3.pdf>
- Rosenberg, U. (2003). Thermal Disinfection – The A₀ Concept and the Biological Background. *Central Service, Vol 11*, 118-120. Accessed on 30 June 2022 at:
http://www.deconidi.ie/html/educ/articles/educarticle_0009_en.pdf