AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

Environmental cleaning practices in small health service organisations

June 2021

Background

Healthcare consumers and healthcare workers expect health service organisations to provide facilities that are clean and hygienic. A visually clean and hygienic environment that is well maintained, free of clutter and unnecessary items supports a health consumer's right to access safe and high quality care in an environment that makes them feel safe. Maintaining a clean and hygienic health service requires a structured risk management approach that reflects the individual needs and requirements of each health service organisation. For small health service organisations, this may mean assessing the physical layout of the premises to determine the appropriate cleaning frequencies for each area, making decisions about how cleaning outcomes will be achieved, and how these outcomes will be assessed or audited.

The nature of treatments provided, and the population that utilises a small health service organisation will also impact an environmental cleaning strategy. For example, a small office-based dental practice will have different cleaning requirements compared to a small hospital with fewer than 50 beds. A health service organisation's risk assessment should factor in the location of the facility, its community context, and the patient groups that are likely to use the facility. The risk assessment should be used to develop an appropriate environmental cleaning strategy.^{1,2}

This information sheet is a part of a suite of resources developed by the Commission to support health service organisations implement strategies to support and promote environmental cleaning in their organisations. This resource provides guidance on what should be considered for inclusion in a small health service organisation's environmental cleaning program such as guidance on risk assessment and identification, staff training and the development of environmental cleaning schedules.

Introduction

Environmental cleaning is an essential part of standard precautions. Standard precautions are work practices that constitute the first-line approach to infection prevention and control (IPC) in all healthcare settings, and are recommended for the treatment and care of all patients.3 Healthcare-associated infections (HAIs) cause considerable morbidity and mortality for patients and are costly for the health system. HAIs are often preventable through the use of standard precautions and targeted interventions that reduce the risk of the transmission of pathogens.3

A small health service organisation's environmental cleaning strategy is an essential part of its IPC program and should include the implementation of risk-based strategies to ensure healthcare environments are clean and hygienic. This reduces the risk of transmission of infection to patients and healthcare workers.^{4,5} The Australian Guidelines for the Prevention and Control of Infection in Healthcare (AICGs) and the National Safety and Quality Health Service (NSQHS) Standards provide recommendations on the practices required to maintain a clean and hygienic environment within health service organisations.

The NSQHS Standards Guide for Multi-Purpose Services and Small Hospitals describes small health service organisations as:

- having typically fewer than 50 beds
- providing many different services and
- are geographically isolated from larger hospitals.6

Small health service organisations may include outpatient or day only procedural units, rehabilitation or primary health care services (including general practices, dental practices and allied health).7

The development of an environmental cleaning program for a small health service organisation should be based on the recommendations on the AICGs and NSQHS Standards, and tailored to the particular needs of the health service organisation. Organisations should take a multidisciplinary approach when developing an environmental cleaning program. Where possible, organisations should consult with infection prevention and control, work health and safety, cleaning, maintenance and engineering representatives.

Consideration needs to be given to the types of activities or services offered and, the associated risk of infection or outbreak of an infectious disease, such as COVID-19.3,4,6 The objectives of an environmental cleaning program should be developed in consultation with those staff members who are responsible for environmental cleaning and infection prevention and control for a health service organisation. Additional environmental cleaning guidance and resources are also provided by each state and territory health department to support health service organisations in implementing environmental cleaning programs.

Essential features of an environmental cleaning program

Developing an environmental cleaning program can be a complex process. As a minimum, a successful environmental cleaning program in a small health service organisation should address the following outcomes:

- Relevant environmental risks are identified, assessed and responded to appropriately and as required. This could include increasing the frequency of cleaning in response to changes in rates of communicable diseases within the local community e.g. COVID-19
- As part of a health service organisation's overall IPC program, staff responsible for environmental cleaning are provided with training on the principles of infection prevention and control
- A detailed cleaning schedule is developed for the entire facility that describes recommended cleaning frequencies, cleaning

- procedures and policies, and role responsibilities of all staff
- Cleaning outcomes are routinely evaluated and monitored by routine auditing
- Cleaning equipment and products are assessed for their suitability for environmental cleaning in the facility. This includes using products according to manufacturer's instructions.^{2,3,5,6}

Risk assessment and identification

Small health service organisations should consider their local circumstances when assessing the level of infection risk for their organisation and developing an environmental cleaning program. Factors that may increase the risk of infection should be considered and addressed.

Examples of various factors that a small health organisation should consider when undertaking a risk assessment to inform the development of their environmental cleaning program are shown in Table 1.

The organisation's environmental cleaning program should be reviewed regularly and modified if the risk of infection changes. For example, the frequency of cleaning may need to change as a result of emerging evidence, outbreaks of infectious diseases (e.g. COVID-19), or in response to internal building works (e.g. generation of dust or fungal spores).^{2,3}

Staff training

- Staff, including contractors, providing environmental cleaning services in small health service organisations should receive initial and ongoing training on how to perform their required environmental cleaning duties. This includes training in:
 - the correct use of various cleaning equipment
 - handling and storage of cleaning solutions
 - the appropriate use of personal protective equipment (PPE)
- Staff performing cleaning duties should have a basic understanding of the principles of infection prevention and control and be able to recognise infection prevention and control signage
- Details about environmental cleaning and infection prevention and control training provided to staff should be recorded.

These records should include:

- the frequency of training
- how training was delivered
- the training content
- who delivered the training
- who participated in training
- when the training was undertaken.^{1,2,5}

Cleaning schedule

- Small health service organisations should develop a cleaning schedule specific to the needs of the facility and the types of services provided. For example, different areas within a facility, such as waiting rooms, staff tea rooms and treatment rooms, need different cleaning frequencies. Infection risks associated with care delivery need to be managed by implementing work practices, including cleaning, that reduce the risk of transmission of infectious agents and multiresistant organisms through a two-tiered approach (i.e. standard and transmission based precautions)
- A cleaning schedule may vary in detail depending on the type of health service organisation. The cleaning schedule should outline the frequency of cleaning and, if required, the different cleaning techniques needed in different clinical areas within the facility and, the criteria for high level or terminal cleaning^{3,5,6}
- Table 2 provides two basic examples of environmental cleaning schedules for small health organisations. These schedules have been developed with consideration of the clinical activities that take place in these organisations⁸
- Some environmental conditions, such as humidity, temperature changes, and light levels, may cause some microorganisms to persist on common environmental surfaces for extended periods of time. Cleaning methods and frequency should be adjusted to mitigate the increased risk of infection in these circumstances^{9,10}
- All health service organisations should keep records of cleaning schedules, audits of environmental cleaning and outcomes from audit findings.⁵

Auditing schedule for environmental cleaning

Environmental cleaning programs should include a process to audit the effectiveness of cleaning in the organisation.

The frequency of auditing should depend on the organisation's infection risk assessment and the infection risk for each clinical or non-clinical area (see **Table 2** for examples of infection risk levels). 5,11,12

For further guidance on auditing for environmental cleaning auditing can be found on the <u>Principles</u> of Environmental Cleaning Auditing factsheet.

Cleaning equipment and products

It is essential that the cleaning products and equipment selected for use in a health service organisation are specifically labelled and intended for the purpose of cleaning.^{3,13} Additional advice on products suitable for disinfection and sanitisation of health service organisations can be found on the TGA website.

Staff should only use cleaning products and equipment supplied by the health service organisation that are in good condition and working order. This includes mops, buckets, cleaning cloths and cleaning solutions. These products should be used as per the manufacturer's instructions.

Items of cleaning equipment that are designated for single-use only should be appropriately disposed of immediately after use. Items that can be reused should be cleaned and stored as per the manufacturer's instructions and in accordance with the recommendations in the AICGs.

Further information on the appropriate use of cleaning solutions can be found in the Principles of Environmental Cleaning Product Selection factsheet.

Table 1: Factors for consideration when undertaking a risk assessment when developing a cleaning schedule

Organisational Considerations	Sample questions for consideration	Actions		
Organisational structure, governance, roles and responsibilities	Is the organisation a standalone facility or part of a larger organisation? Who has overarching responsibility for environmental and equipment cleaning? Is there a current environmental cleaning program that includes equipment cleaning, staff roles and responsibilities?	 Consider the organisation's existing environmental cleaning program and whether this program includes details about who has overall accountability for environmental cleaning within the organisation and at a facility level. Ensure that the environmental cleaning program is regularly updated to reflect changes to roles, service provision and infection risk for the organisation. 		
Legal requirements, policies and protocols	What policies, protocols and procedures are currently in place to manage and support environmental and equipment cleaning? Do these policies, protocols and procedures describe the frequency of cleaning required for the services offered in the facility? Are there legal, or regulatory requirements or changes that may impact service provision?	 Ensure that any policies, protocols or procedures that support the organisation's cleaning program describes the following: Frequency of cleaning in clinical and non-clinical settings based on a risk assessment for the risk of infection to staff and patients, Cleaning techniques to be used in clinical and non-clinical settings including products and equipment Roles and responsibilities of all staff in relation to environmental and equipment cleaning. Ensure that these policies, protocols and procedures are updated regularly and in response to changes in roles, service provision and infection risk for the organisation. Ensure that the existing environmental cleaning program complies with current recommendations and requirements for work health and safety regulations, Therapeutic Goods Administrations (TGA) advice, Australasian Health Facility Guidelines, and local, jurisdictional or national requirements and guidelines for infection prevention and control, and environmental cleaning. 		
The types of services provided by this organisation	What types of health services are provided by this organisation/ facility? e.g. Invasive medical procedures such as surgery or non-invasive treatments such as physiotherapy. Is there a high risk of environmental contamination to staff and or patients associated with the services provided by this organisation?	Ensure that the environmental cleaning program reflects the requirements for cleaning according to the services offered and the potential infection risk.		
Human resources	What are the roles and responsibilities of staff in relation to environmental and equipment cleaning? Does the organisation have staff dedicated to providing cleaning services? Are these staff employed in-house or does the organisation use contractors, or a mix of both?	 Consider whether staff have cleaning responsibilities in addition to clinical or non-clinical duties and what processes are in place to manage these responsibilities. Consider what IPC and environmental cleaning education and training staff may require, including handling of chemicals and PPE use. 		

Organisational Considerations	Sample questions for consideration	Actions	
		 Consider how contracted cleaning staff are orientated to the organisation, what type of training and education has been provided by their employer and if they require additional training to meet the cleaning requirements for this organisation. 	
Cleaning resources	What products and equipment are readily available for staff to use for environmental and equipment cleaning?	 Consider how staff access and use cleaning equipment and products. Consider who is providing the cleaning equipment and products, 	
	Are cleaning products and equipment provided directly by the organisation? Are staff required to purchase any cleaning products or equipment themselves? (e.g. surface cleaner or disinfectant) What processes are in place to ensure that cleaning products and equipment are appropriate for cleaning in a health service organisation?	 including novel cleaning technologies. Consider what processes are in place to ensure that cleaning equipment and products are fit for purpose. 	
Building design	Is the building purpose built/ designed for the delivery of health care? How old is the building? Is a large amount of maintenance required for the upkeep of the building? What types of fittings and furnishings are used in this building? Is there carpet, soft or porous furnishings or surfaces that are difficult to clean?	Consider if the existing environmental cleaning program accounts for the building design, furnishing and fitting and includes strategies that reduce any infection risks.	
		Consider whether the existing building maintenance program includes strategies to reduce infection risks.	
		 These matters would need to be discussed as part of asset maintenance and capital planning processes. 	
Local epidemiology	Are there current public health warnings or community outbreaks of infectious diseases/ pandemics?	Consider advice from public health units relating to local community outbreaks of infectious diseases or current public health warnings and whether the organisation's environmental cleaning program can implement additional cleaning to responds to meet these needs.	
Organisation location	Where is the organisation/ facility located? Is this a remote location?	Consider whether the organisation and or local support services can	
	What local and emergency services or resources are available to support this organisation (e.g. is the service reliant on town or tank water, is the area prone to dust storms or local flooding)? Are major building works occurring nearby that may generate dust and fungal spores?	provide a timely response in the event of an emergency (flood/water leaks) or sustain increased environmental cleaning (dust from building works).	
		Consider how environmental cleaning would be undertaken with minimal disruption to health service provision.	
		 Consider whether any cleaning equipment requires servicing and maintenance from an external provider, and if this is available at this location. 	

Table 2: Examples of cleaning schedules for small health service organisations

Example 1: Clea	ning schedule for a co	ommunity	health cli	nic			
Frequency of cleaning	Cleaning solution	Furnishi fixtures	ing/	Exampl	es	Infection risk level*	
Daily or weekly	Neutral detergent	Minimally touched surfaces		Floors, walls, administrative areas		Low	
Daily or more often	Neutral detergent, Disinfectant for blood, body fluids and MROs†	Frequently touched surfaces		Patient areas and shared clinical equipment, doorknobs, light switches		High	
Example 2: Clea	ning schedule for day	-only end	loscopy s	ervice			
Frequency of cleaning	Cleaning solution		Area/ Typ Activity	oe of	Infection risk level*		
Daily or more often	Neutral detergent, Disinf blood, body fluids and M			n areas	Extreme high risk		
Daily or more often (e.g: between patient use)	Neutral detergent, Disinf blood, body fluids and M	-		/ areas	High risk		
Daily or more often	Neutral detergent and disinfectant for toilets, blood, body fluid and MROs		and the		and the services prov	epending on the type of facility d the services provided the throom could be low to gh risk area.	
Daily or weekly	Neutral detergent		Administration		Low risk		
Daily or more often	Neutral detergent		patient waiting area ri		Low risk, but may involve a higher risk where a patient presents with a highly transmissible illness, e.g. measles		
Daily	Neutral detergent		Staff room		Low risk		

Table adapted from Infection Control Management Plans for Non-Hospital Healthcare Facilities (Queensland Health, 2019)⁸
*When developing a cleaning schedule, the infection risk level should consider the type of activity and the level of activity undertaken in the area, as well as the recommendations in the AICGs for the minimum frequency of routine cleaning for a specific area. For example, a bathroom which is frequently used by many different people would need to be cleaned more frequently than a corridor or office space used by one person. †MRO Multi-resistant organisms

References

- Australian Commission on Safety and Quality in Health Care and National Safety and Quality Health Services Standards Guide for Dental Practices and Services. 2015. ACSQHC: Sydney.
- Australian Commission on Safety and Quality in Health Care, National Safety and Quality Health Service Standards 2nd.ed.- version 2. 2021. ACSQHC: Sydney.
- National Health and Medical Research Council and Australian Commission on Safety and Quality in Health Care, Australian Guidelines for the Prevention and Control of Infection in Healthcare. 2019. NHMRC: Canberra.
- Hall, L. and Mitchell, B.G. Cleaning and decontamination of the healthcare environment, in Decontamination in Hospitals and Healthcare, J. Walker, Editor. 2019, Woodhead Publishing: London. p. 227-39.
- South Australia Health, Cleaning Standard for South Australian Healthcare Facilities. 2014: Adelaide.
- Australian Commission on Safety and Quality in Health Care, National Safety and Quality Health Service Standards guide for multi-purpose services and small hospitals. 2017. ACSQHC: Sydney.

- Australian Government: Department of Health. Fact Sheet: Primary Health Care. 2018. Primary Health Network.
- 8. Queensland Health. *Infection Control Management Plans for Non- Hospital Healthcare Facilities*. 2019
- 9. Riddell, S., et al., *The effect of temperature on persistence of SARS- CoV-2 on common surfaces.* Virology Journal, 2020. 17(1):145.
- Ward, M.P., Xiao, S. and Zhang, Z. Humidity is a consistent climatic factor contributing to SARS-CoV-2 transmission. Transbound Emerging Infectious Diseases, 2020
- 11. NSW Health. Cleaning of the Healthcare Environment. 2020: Sydney
- 12. NSW Health and Clinical Excellence Commission. Environmental Cleaning Standard Operating Procedures. 2012. CEC: Sydney
- Lauman, M., Therapeutic Goods (Standards for Disinfectants and Sanitary Products) (TGO 104) Order 2019, in Federal Register of Legislation. Medical Devices Branch, Health Products Regulation Group. 2019, Department of Health, Australian Government