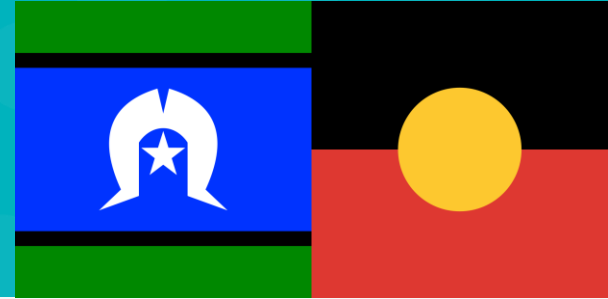


Australian Primary Health Care Nurses Association

Acknowledgement of Country



We would like to acknowledge the traditional owners of country throughout Australia,
and their continuing connection to land, sea and community.
We pay our respects to them, their cultures, and to Elders past and present and emerging.

Principles of Environmental Cleaning

Facilitators: Sara Drew & Lisa Sinkins

Presenter: Megan Reilly

This webinar is part of the APNA infection prevention
helpline in association with Murray PHN

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About your presenter

Megan Reilly

Megan is a registered general nurse and is the director of Hands-On Infection Control which is based in Western Australia

Megan holds a Certificate in Infection Control from Fremantle Hospital (1988). She achieved her Bachelor of Nursing at Edith Cowan University in 1999, Master of Health Science (Infection Control) with Honors at Griffith University in 2002 and TAE40116 Certificate IV in Training & Assessment in 2015

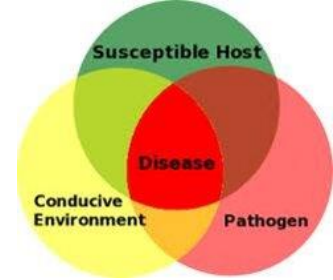
Megan is also a certified Immunisation Nurse and Hand Hygiene Gold Standard Auditor

Contents

- Top 10 guide to environmental cleaning principles
- Q&A

Learning Outcomes

- Apply a risk-based management approach to environmental cleaning
- Identify 10 key principles that can be applied to the primary healthcare practice setting

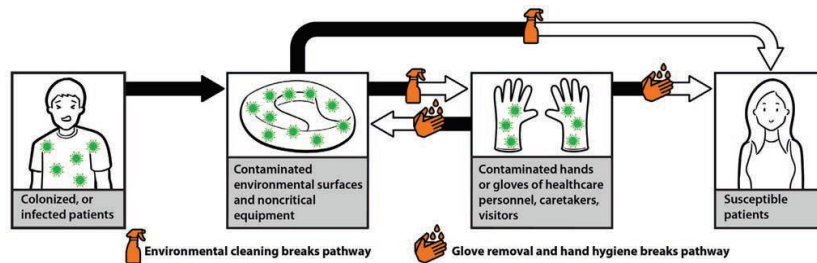


Introduction

- Environmental contamination in healthcare settings plays a role in the transmission of healthcare associated infections (HAIs)
- Environmental cleaning is a fundamental intervention of infection prevention and control (IPC)
- It is part of Standard Precautions which should be applied to all patients in all health care settings
- To be effective, environmental cleaning activities must be implemented within the framework of the practice IPC program, and not a standalone intervention
- It is a multifaceted intervention that involves cleaning and disinfection (where indicated) of the environment, alongside other key program elements (e.g. leadership, support, training, monitoring, and feedback mechanisms)

Environmental Transmission

- Environmental transmission of HAIs can occur by different pathways



Source: Centers for Disease Control & Prevention (CDC, 2019)

- Some healthcare associated pathogens can survive on environmental surfaces for varying periods; hours to months
- Actual survival times in healthcare settings vary considerably based on factors such as temperature, humidity and surface type
- Evidence is increasing that effective environmental cleaning strategies reduce the risk of transmission and contribute to outbreak and pandemic control



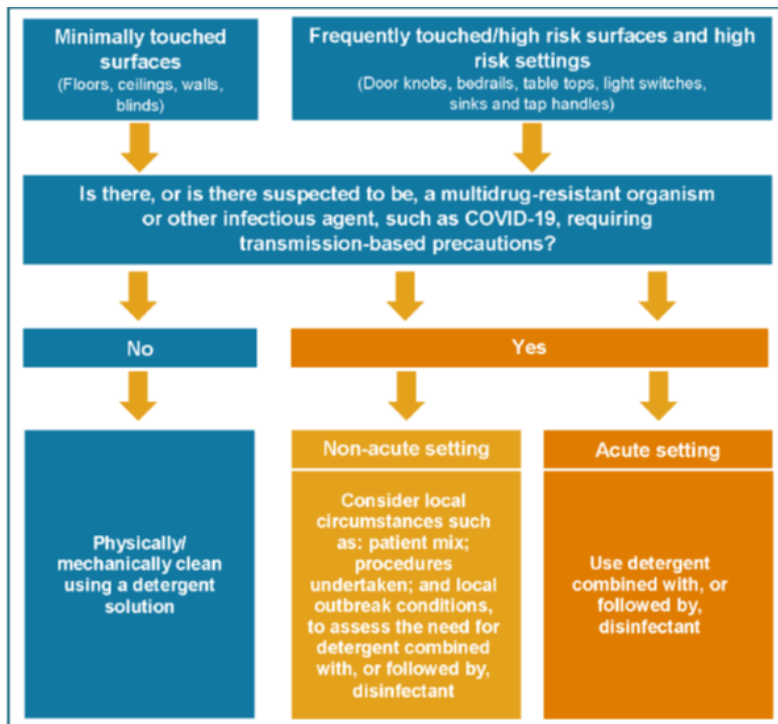


1. Risk-Based Approach

Risk analysis determines cleaning method, process, frequency and products used in routine and enhanced/contingency cleaning schedules for all patient care areas

1. Categorise risk factors that determine the need for environmental cleaning
 - **Probability** of contamination with pathogens (heavy, moderate, light)
 - **Vulnerability** of the population to infection (more susceptible, less susceptible)
 - Potential for **exposure** (high touch vs low touch surfaces)
2. Determine the total risk stratification score (low, moderate, high)
3. Determine the cleaning frequency based on the risk stratification matrix

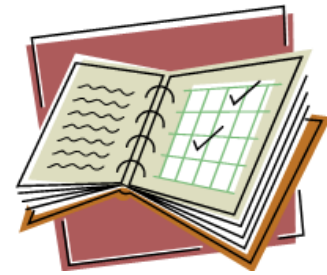
2 & 3. Cleaning Method and Process



- Routine cleaning
- Unscheduled blood and body fluid spills management
- Non-critical patient care equipment
- Enhanced cleaning and disinfection
- Scheduled cleaning
- Terminal cleaning

Cleaning is the most important step!





4. Cleaning Frequency

- Should be justified by the risk of transmission of infection within the practice
- More frequent rigorous cleaning (with a different method or process) environmental cleaning is required in areas of high risk
- Frequently touched surfaces should be cleaned:
 - At least daily
 - When visibly soiled
 - After every known contamination by a likely pathogen
- Surfaces that are subject to less frequent contact can be cleaned less frequently
- The risk of transmission of particular infections should be assessed and the cleaning schedule adjusted if a known infectious agent is present
 - Single case
 - Community outbreak
 - Pandemic



5. Product and Equipment Selection

- Cleaning and disinfectant products
- Reusable/disposable supplies
- PPE used for cleaning
- 2-step clean vs 2-in-1 clean
- Microfibre vs Cotton
- Reusable vs Disposable
- Solution vs Wipes
- Detergent or Detergent /Disinfectant wipes

TGA-listed hospital-grade agents

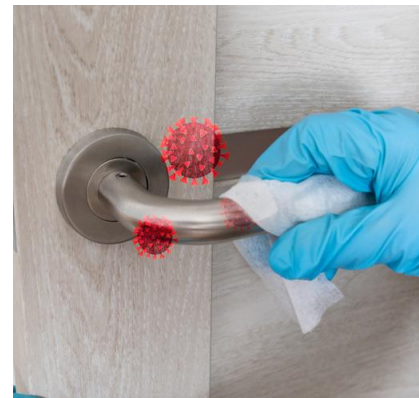
Questions to ask when selecting disinfectants

Factors to consider	Questions to ask ⁸⁻¹¹
Kill claims	<ul style="list-style-type: none"> • Does the product: <ul style="list-style-type: none"> • Kill pathogens that cause most HAIs, outbreaks, and are a major issue in our facility (see Table 1)? • Have sustained activity once used on a surface? • Work in the presence of organic matter (blood, sputum, faeces)? • Testing match real life scenarios? • Kill pathogens quickly?
Wet-contact times	<ul style="list-style-type: none"> • Is it “fast-acting”? • Does it keep surfaces wet for enough time to kill pathogens? • How long before the disinfectant evaporates? • Is the product inactivated by organic material?
Compatibility	<ul style="list-style-type: none"> • Is it compatible with the surfaces in our facility? • Is it compatible with other products in use? • Is it compatible with medical equipment?
Safety	<ul style="list-style-type: none"> • What is the toxicity rating? (Consider exposure of staff, visitors and patients) • Is it approved by a relevant regulatory body? • What personal protective equipment will be required?
Ease of use	<ul style="list-style-type: none"> • Does it come in the forms that our facility needs (wipes, sprays, liquids)? • Are the instructions clear? • Does it need dilution? • Is it a two step or one step product? • How much training will be required and who will provide this training? • Can the product help you to standardise practices in your facility?
Value for money	<ul style="list-style-type: none"> • Is it the most cost effective option? (Consider product capabilities, efficiencies through improvements in cleaning compliance/standardisation and potential transmission avoided)

6. Material Compatibility Considerations

- Fittings, finishes, furnishings and patient care equipment can be cleaned and compatible with detergent and disinfectant products
- Decision making process and policy to guide selection and procurement
- Refer to manufacturer's Instructions for Use (IFU)

Characteristic	Selection guidance
Cleanable	Avoid items with hard-to-clean features (e.g., crevasses). Do not use carpet in patient care areas. Select material that can withstand repeated cleaning.
Easy to maintain and repair	Avoid materials that are prone to cracks, scratches, or chips, and quickly patch/repair if they occur. Select materials that are durable or easy to repair.
Resistant to microbial growth	Avoid materials that hold moisture, such as wood or cloth, because these facilitate microbial growth. Select metals and hard plastics.
Nonporous	Avoid items with porous surfaces, such as cotton, wood and nylon. Avoid porous plastics, such as polypropylene, in patient care areas.
Seamless	Avoid items with seams. Avoid upholstered furniture in patient care areas.





7. Work Health and Safety

- Personal hygiene, hand hygiene, maintaining skin integrity, respiratory hygiene
- Selection and use of PPE, waste handling & disposal, VPD immunisations
- Reporting infections and hazards, occupational exposure management

8. Education and Training

- Train staff on transmission of microorganisms, cleaning methods and processes, how to use and care for equipment, chemicals and PPE

9. Policies and Procedures

- Developing practice specific environmental cleaning policy
- Developing and maintaining standard operating procedures for all cleaning tasks

10. Monitoring, Feedback and Audit



Best practice to perform routine standardised assessments

- Cleaning work practices
- Level of cleanliness

Performance observations

- Effectiveness of cleaning and clinical staff and adherence to procedures

Visual assessment of cleanliness (direct observation)

- Checks the cleanliness of items

Fluorescent markers

- A tracing agent marks predetermined items and surfaces before cleaning

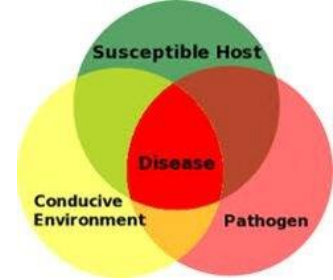
ATP bioluminescence

- Indicates the presence of organic material on surfaces before and after cleaning

Environmental cultures

- Levels of microbial contamination after cleaning

Summary



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Q & A



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**THANK YOU
FOR JOINING US**

**KEEP UP THE
GOOD WORK**

Please complete your evaluation

References

Australian Guidelines for the Prevention and Control of Infection in Healthcare

<https://app.magicapp.org/#/guidelines>

RACGP Infection Prevention and Control Standards

<https://www.racgp.org.au/running-a-practice/practice-standards/standards-5th-edition/infection-prevention-and-control>

ACSQHC Environmental cleaning and infection prevention and control resources

<https://www.safetyandquality.gov.au/our-work/infection-prevention-and-control/environmental-cleaning-and-infection-prevention-and-control>

Victoria Department of Health COVID-19 Infection Prevention and Control Guidelines

<https://www.dhhs.vic.gov.au/covid-19-infection-control-guidelines>

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<https://www.health.gov.au/resources/publications/coronavirus-covid-19-environmental-cleaning-and-disinfection-principles-for-health-and-residential-care-facilities>

AMA COVIDSafe Practice Guide

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Public Health Ontario Best Practices for Environmental Cleaning for Prevention and Control of Infection in All Healthcare Settings

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