

Environmental management for health professionals

This information summarises the recommendations for environmental management for prevention of transmission of coronavirus via environmental surfaces and fomites (note: this advice does not apply to reusable medical devices). Also refer to the Australian Government Department for Health [Environmental cleaning and disinfection principles for COVID-19](#) and to local policies and procedures.

General principles

Cleaning **and** disinfection is recommended. This can be accomplished using a two-step process, or a combined detergent/disinfectant product. Disinfectants that are used within a healthcare setting must be either:

- > a TGA approved (registered or listed) hospital-grade disinfectant, preferably with label claims against coronavirus, or
- > a chlorine-base product such as sodium hypochlorite at 1,000 ppm available chlorine.

Detergent and/or disinfectant-impregnated wipes with appropriate claims for activity against coronavirus can be used for small items of patient care equipment (see below).

For further details on cleaning chemicals also see the [SA Health Cleaning Standard for healthcare facilities](#) (section 4.1 Cleaning chemicals). Care should be taken to ensure that the cleaning chemical is used appropriately and in accordance with the manufacturer's specifications. All claims regarding the efficacy of a chemical should be carefully assessed and clarified if necessary. For effective disinfection it is important to ensure that the recommended contact time for the product is adhered to.

Use disposable cleaning equipment and cloths where possible or launder as per the [SA Health Cleaning Standard for healthcare facilities](#) (section 4.2 Cleaning equipment).

Environmental surfaces should be cleaned on a regular basis: at least once daily; following aerosol-generating procedures or other activities that might contaminate the environment; and on patient discharge. Frequently touched surfaces such as handles and door knobs should be cleaned more often.

Cleaning and disinfection of patient rooms should only be performed by staff trained in the use of the appropriate personal protective equipment including disposable face mask, long-sleeved gown, gloves, and eye protection.

Note: Swabbing the environment as a means of validating cleaning is not recommended.

Patient Care Equipment

Use disposable or dedicated patient care equipment wherever possible and clean and disinfect between each use. Disinfectant wipes can be used on small items of equipment, but care must be taken with the use of chemicals on electrical equipment, where an alcohol wipe may be more appropriate. Always refer to equipment manufacturer's instructions for suitable cleaning and disinfection products.

No special treatment of patient cutlery and crockery is required.

Environmental management for health professionals

Linen

Used linen should be bagged inside the room and managed as for patients on transmission-based precautions. A linen chute should not be used as this may create aerosols.

Waste

Dispose of waste as per transmission-based precautions in the medical waste stream.

Which disinfectants are active against coronaviruses?

In general, sodium hypochlorite (bleach) at a concentration of 1000ppm available chlorine, and ethanol at concentrations of 70 – 90% are considered the best disinfectant choices for clinical situations. Prior cleaning is essential for both chemicals.

Combined bleach-based detergent-disinfectant products are also suitable for routine cleaning of hard surfaces, particularly bathroom surfaces and frequently touched surfaces such as door knobs, handles and patient overway tables and lockers.

Quaternary ammonium compounds, such as benzalkonium chloride and related compounds, have a dual detergent and disinfection property and can be suitable alternatives. However, the formulations differ substantially in their activity and only TGA listed disinfectants with verified claims against viruses should be used in a clinical situation, where viral loads on environmental surfaces can be high.

References

1. Casanova LM, Jeon S, Rutala WA, Weber DJ, Sobsey MD. Effects of air temperature and relative humidity on coronavirus survival on surfaces. *Appl. Environ. Microbiol.* 2010, 76(9): 2712-2717.
2. Geller C, Varbanov M, Duval RE. Human Coronaviruses: Insights into Environmental Resistance and its Influence on the Development of New Antiseptic Strategies. *Viruses* 2012, 4(11): 3044-3068.
3. Gerba, CP. Quaternary ammonium biocides: efficacy in application. *Appl. Environ. Microbiol.* 2015, 81 (2): 464.

For more information

Infection Control Service
Communicable Disease Control Branch
www.sahealth.sa.gov.au/COVID2019

Version 2.3 (March 2020)
Public-I1-A1

