

Fact Sheet for health professionals

Coronavirus disease (COVID-19): environmental management

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).

Coronaviruses are a group of enveloped RNA viruses, similar in structure to the influenza virus. There is limited scientific evidence on the survival of coronaviruses in the environment; however recent evidence suggests they may survive for up to several days on surfaces, especially in the presence of organic material¹.

The following advice applies to patient isolation rooms, anterooms and other areas where patients with suspected or confirmed COVID-19 have been managed. Also refer 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 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.

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.

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?

A recent review² lists the following "active at in-use" concentrations of commonly used disinfectants against coronavirus. These results do not include the 2019-nCoV, but it is likely the new strain has similar physical properties to the tested strains. **Note:** this is a general guide only and some products may have combinations of ingredients that may have proven activity against coronavirus or similar non-enveloped viruses.

Compound	Active at in-use concentrations?	Minimum effective concentration
Sodium hypochlorite	Yes	0.1% (1,000ppm available chlorine)
Alcohol (ethanol)	Yes	70%
Quarternary ammonium compounds + 70% ethanol	Yes	0.04% + 70% ethanol
Quarternary ammonium compounds + HCl (acidified Quat)	Yes	0.04% + 1% HCl
Quarternary ammonium compounds (Quat)	No	

Adapted from Reference 2.

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.

For more information

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Version 2.0 (February 2020)
Public-11-A1



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