



Environmental cleaning and disinfection principles for health and residential care facilities

This information sheet should be read in conjunction with the 'What you need to know' and 'Isolation guidance' information sheets at www.health.gov.au/covid19-resources

Cleaning is an essential part of disinfection. Organic matter can inactivate many disinfectants. Cleaning reduces the soil load, allowing the disinfectant to work. Removal of germs such as the virus that causes COVID-19 requires thorough cleaning followed by disinfection.

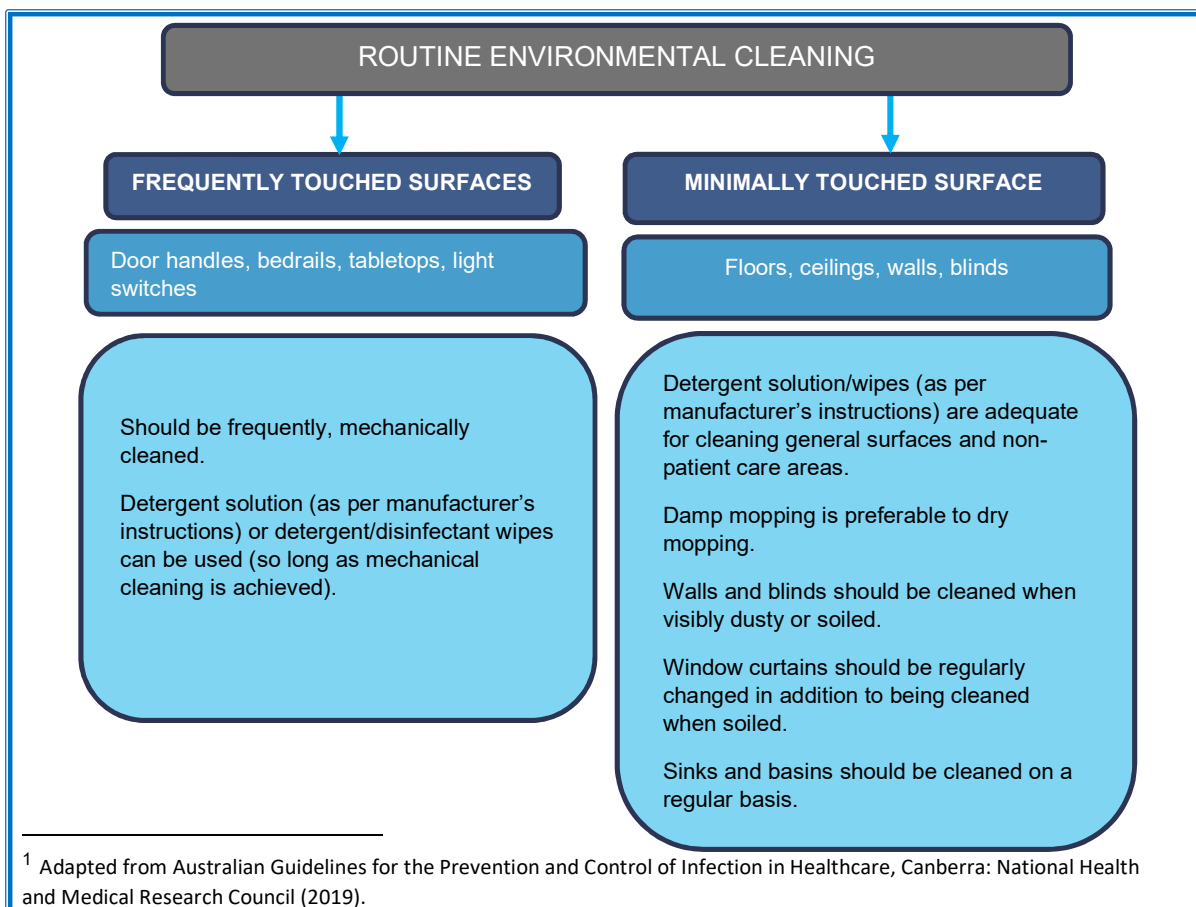
The length of time that SARS-COV-2 (the cause of COVID-19) survives on inanimate surfaces will vary depending on factors such as the amount of contaminated body fluid e.g. respiratory droplets or soiling present and environmental temperature and humidity.

Coronaviruses can survive on surfaces for many hours but are readily inactivated by cleaning and disinfection.

It is good practice to routinely clean surfaces as follows:

- Clean frequently touched surfaces with detergent solution (see diagram below).
- Clean general surfaces and fittings when visibly soiled and immediately after any spillage.

Routine environmental cleaning requirements can be divided into two groups¹:



¹ Adapted from Australian Guidelines for the Prevention and Control of Infection in Healthcare, Canberra: National Health and Medical Research Council (2019).

Hand hygiene

Soap and water can be used for hand hygiene at any time and **should** be used when hands are visibly soiled.

Alcohol-based hand rub (sanitiser) can be used if soap and water are not readily accessible, except when hands are visibly soiled.

Cleaning hands regularly also helps to reduce environmental contamination.

Information for cleaning staff of health and residential care facilities

The risk when cleaning is not the same as the risk when face-to-face with a sick person who may be coughing or sneezing.

- Cleaning staff should be informed to avoid touching their face, especially their mouth, nose, and eyes when cleaning.
- Cleaning staff should wear impermeable disposable gloves and a surgical mask plus eye protection or a face shield while cleaning.
- Cleaners should use alcohol-based hand rub before putting on and after removing gloves.
- Alcohol-based hand rub should also be used before putting on and after removing the surgical mask and eye protection.

The surgical mask and eye protection act as barriers to people inadvertently touching their face with contaminated hands and fingers, whether gloved or not.

- If there is visible contamination with respiratory secretions or other body fluid, the cleaners should wear a full length disposable gown in addition to the surgical mask, eye protection and gloves.
- Advice should be sought from your work health and safety consultants on correct procedures for wearing PPE.

Use of disinfection

- The disinfectant used should be one for which the manufacturer claims antiviral activity, meaning it can kill the virus (such as chlorine-based disinfectants, which are commonly used - see below).
- Ready-made disinfection products can be used, if available. Diluted bleach or disinfectants listed on the Australian Register of Therapeutic Goods that have virucidal claims can be used.
- If using freshly made bleach solution, follow manufacturer's instructions for appropriate dilution and use (see below for dilution instructions). Note that prediluted bleach solutions lose potency over time and on exposure to sunlight.
- Wipe the area with bleach solution using disposable paper towels or a disposable cloth.
- Dispose of gloves and mask in a leak proof plastic bag.
- Wash hands well using soap and water and dry with disposable paper or single-use cloth towel. If water is unavailable, clean hands with alcohol-based hand rub.

Preparation of chlorine-based disinfectant solution

- Chlorine (bleach) can effectively kill viruses but handling it can be hazardous for humans.
- Use a safer alternative, where possible, and always follow manufacturer's instructions.

- Know when and how to dilute it correctly (e.g. always pour concentrate into the water, never the other way around).
- Work in a well ventilated area and wear personal protective equipment (see below).
- DO NOT use with any other products (e.g. toilet bowl cleaners, acids - including vinegar - or anything containing ammonia).

When preparing bleach solutions, observe the following:

- Gloves should be worn when handling and preparing bleach solutions.
- Appropriate protective eye wear should be worn in case of splashing.
- Bleach solution should be:
 - made up daily.
 - used mainly on hard, non-porous surfaces (it can damage textiles and metals).
- Sufficient time is required to kill the virus; follow manufacturer's instructions.

Household bleach comes in a variety of strengths. The concentration of active ingredient — hypochlorous acid² — can be found on the product label.

Table 1. Recipes to achieve a 1000 ppm (0.1%) bleach solution

Original strength of bleach		Disinfectant recipe		Volume in standard 10L bucket
%	Parts per million	Parts of bleach	Parts of water	
1	10,000	1	9	1000 mL
2	20,000	1	19	500 mL
3	30,000	1	29	333 mL
4	40,000	1	39	250 mL
5	50,000	1	49	200 mL

²Hypochlorous acid (HOCl) is a weak acid formed when chlorine (Cl) dissolves in water and dissociated to hypochlorite (ClO⁻) which is the oxidising disinfectant in bleach.

Communal staff, public and patient support areas

These environments include (but are not limited to), staff dining rooms, cafes, retail outlets, staff meeting rooms and patient transport vehicles.

The risk of transmission of COVID-19 in these settings can be minimised through a good standard of general hygiene. This includes:

- Promoting cough etiquette and respiratory hygiene.
- Routine cleaning of frequently touched hard surfaces with detergent/disinfectant solution/wipe.
- Providing adequate alcohol-based hand rub for staff and consumers to use. Alcohol-based hand rub stations should be available, especially in areas where food is on display and frequent touching of produce occurs.
- Training staff on use of alcohol-based hand rub.

Vehicle air-conditioning should be set to fresh air



Health care settings

Primary and community care

Non-patient areas and well residents' rooms and communal areas in RCFs

- Perform routine cleaning of frequently touched surfaces with detergent/disinfectant solution/wipe at least daily or when visibly dirty.
- Floors should be cleaned using a detergent solution.

Patient areas

- Clean and disinfect frequently touched surfaces with detergent and disinfectant wipe/solution between each episode of patient care (according to normal infection prevention and control practice).
- Take care to clean/disinfect surfaces in areas that patients have directly in contact with or have been exposed to respiratory droplets.
- Gross contamination of an area following a patient may require a terminal clean (see below).
- Comply with '5 Moments' of hand hygiene'.

Inpatient care

- Clean and disinfect frequently touched surfaces with detergent and disinfectant wipe/solution at least daily or more frequently in high intensity (e.g. ICU) or high traffic (e.g. radiology, outpatients) areas.
- Clean and disinfect equipment after each use (as per normal infection prevention and control practice).
- Clean and disinfect surfaces that have been in direct contact with or exposed to respiratory droplets between each patient episode.

Rooms of RCF residents who are ill.

- Clean and disinfect frequently touched surfaces with detergent and disinfectant wipe/solution at least daily.
- Clean and disinfect equipment after each use.
- Clean and disinfect surfaces that have been in direct contact with or exposed to respiratory droplets.

Terminal cleaning

Terminal cleaning is a complete and enhanced cleaning procedure that decontaminates an area following discharge or transfer of a patient with an infectious/communicable disease, or a room in a RCF after a resident has recovered from an infectious illness, sometimes also referred to as an 'infectious clean'. Terminal cleaning requires both thorough cleaning and disinfection for environmental decontamination.

Cleaning should be followed by or combined with a disinfectant process (see 2-step clean and 2-in-1 step clean below).

Ensure room is prepared prior to cleaning, remove medical equipment and patient used items.

- Wear PPE – surgical mask, protective eyewear, gloves and gown
- Change bed screens and curtains (including disposable curtains/screens) that are soiled or contaminated
- Damp dust all surfaces, furniture and fittings
- Clean windows, sills and frames
- Clean all surfaces of bed and mattress

- Mop floor
- Remove PPE and perform hand hygiene
- Clean all cleaning equipment and return it to the cleaners' room or storage area, discard any waste
- Perform hand hygiene

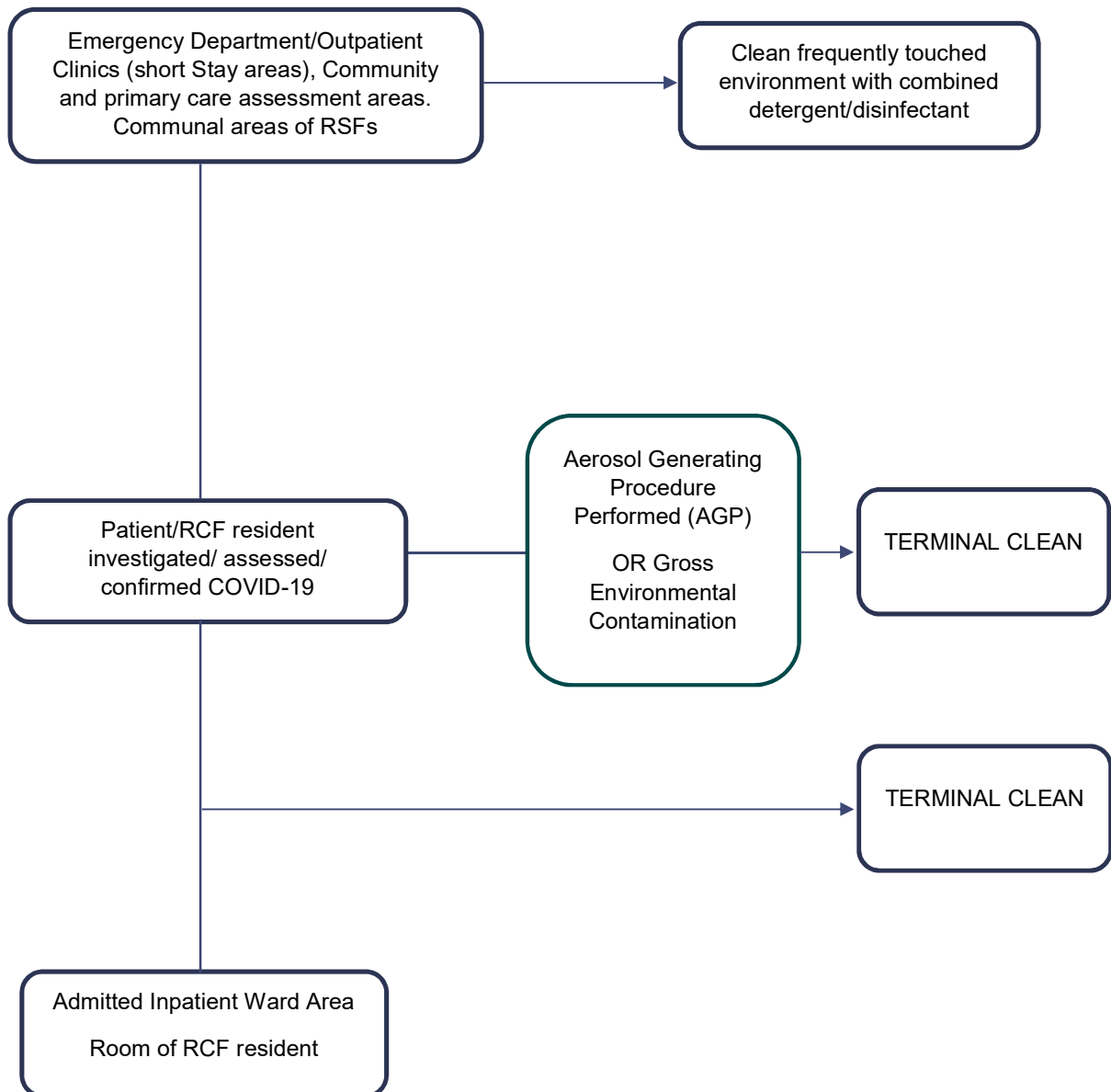
2-step clean

Physical cleaning with detergent followed by disinfection with a TGA-listed hospital-grade disinfectant with activity against viruses (according to label/product information) or a chlorine-based product such as sodium hypochlorite.

2-in-1 clean

A physical clean using a combined detergent and TGA-listed hospital-grade disinfectant with activity against viruses (according to label/product information) or a chlorine-based product such as sodium hypochlorite, where indicated for use i.e. a combined detergent/disinfectant wipe or solution.

Cleaning and terminal cleaning when managing patients or RCF residents suspected/confirmed with COVID-19 flow chart



NB: Health care settings must comply with use of TGA compliant cleaning and disinfecting products and technologies

How can we help prevent the spread of COVID-19?

Practising good hand and sneeze/cough hygiene is the best defence against most viruses. You should:

- wash your hands frequently with soap and water, before and after eating, and after going to the toilet
- cover your cough and sneeze, dispose of tissues, and use alcohol-based hand sanitiser
- practice social distancing and, if unwell, avoid contact with others (stay more than 1.5 metres from people).

You can find out more about how to stop the spread of COVID-19 at

<https://www.health.gov.au/news/launch-of-the-coronavirus-covid-19-campaign>

More information

For the latest advice, information and resources, go to www.health.gov.au

For more information regarding considerations for chlorine use in infection control, go to

<https://www.cdc.gov/vhf/ebola/clinicians/non-us-healthcare-settings/chlorine-use.html>

For more information regarding safety when using chlorine-based solutions, go to

<https://www.cdc.gov/niosh/topics/chlorine/default.html>,

<https://www.ag.ndsu.edu/flood/home/chlorine-bleach-safety>, and

<https://www.ccohs.ca/oshanswers/chemicals/bleach.html>

Call the National Coronavirus Health Information Line on 1800 020 080. It operates 24 hours a day, seven days a week. If you require translating or interpreting services, call 131 450.

The phone number of each state or territory public health agency is available at

www.health.gov.au/state-territory-contacts

If you have concerns about your health, speak to a doctor.