



Infection Prevention and Control (IPC) Healthcare Worker (HCW) Training:

Environmental Cleaning

Novel Coronavirus (COVID-19): Preparedness and Response

Joint IMT Covid-19 IPC Technical and Clinical Unit







Learning objectives:

- Define what a corona virus is and explain how they spreads
- Explain the importance of environmental cleaning in preventing the spread of infections
- Identify cleaning equipment and methods for cleaning



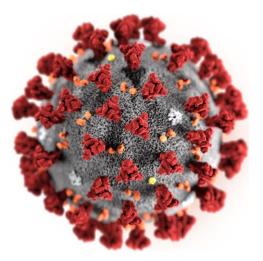
What is Coronavirus (COVID-19)?



Large family of viruses;

- causes illness such as the common cold to severe illness
- new strain, COVD-19 (no vaccine

or treatment)









Via respiratory droplets through:

- Coughing
- Sneezing
- Touching respiratory secretions of sick people (including contact with contaminated surfaces)
- Breathing in from unclean hands



Why is cleaning important?



To prevent contaminated surfaces from potential or actual sources of infection transmission





Protect your patients





What is **Decontamination**?



Decontamination ensures an item or object is safe for reuse.



- All dirt and visible waste must be removed (cleaned)
 before using disinfectant
- If we don't clear first, the disinfectant will not work







Always check with the nurse looking after the patient before proceeding.

- 1. Wash hands with liquid soap/running water or alcoholbased hand rub.
- 2. Put on a disposable apron or gown. Fasten the back of the apron/gown at the neck and waist.
- 3. Put on a surgical mask, secure the ties of the mask at the middle of the head and neck. Fit the flexible band to nose bridge, ensure mask is fitted snug to face and below the chin.
- 4. Put on goggles or face shield to protect your eyes from the cleaning fluids.
- 5. Put on disposable latex or vinyl gloves.















- 1. Remove gloves and gowns carefully to prevent self contamination
- 2. Wash hands with liquid soap/running water or alcohol- based hand rub
- 3. Remove goggles or face shield and mask from the back and avoid touching the front.
- 4. Wash hands with liquid soap/running water or alcohol- based hand rub



Principles of General Cleaning



- Always don appropriate PPE
- Clean first before disinfecting
- Clean all patient care areas (and disinfect where indicated)
- Where possible, dedicate cleaning supplies in high risk areas (operating rooms, delivery suites)
- Cleaning supplies for Isolation areas should be kept, and only used in isolation
- Move from cleanest area to dirtiest
- Always clean patient care equipment between each patient





One Bucket = One Job

- There are many buckets that are used for cleaning and removing waste
- A single bucket should not be used for more than one job because this can spread germs
- Buckets for specific purposes must be labelled and, if possible, coloured







Item	Frequency
Surfaces (floors, tables, chairs)	At least twice dailyWhen visibly soiled
Medical equipment (axillary thermometers)	After every patient
Plates and utensils	After every patient
Reusable PPE (aprons, boots)	After proceduresAfter exiting an isolation areaWhen visibly soiled
Linens and mattresses	After every patientWhen visibly soiled



Cleaning Frequency



Item	Frequency
Screening area	 At least twice daily Immediately after a patient with a suspected infectious disease
Isolation area	At least once daily, more if visibly dirtyAfter every patient
Non-Patient care areas	At least twice daily
Latrines/toilets	At least twice dailyWhen visibly soiled
All areas	Immediately following possible contamination with blood or bodily fluids
Surfaces (floors, tables, chairs)	At least twice dailyWhen visibly soiled



Steps for Cleaning & Disinfection



The 2-step clean is recommended

1) First, thoroughly clean with a solution of water/neutral detergent all hard surfaces and all frequently touched surfaces (e.g. benches, door handles, furniture, light switches). Follow facility procedures on cleaning.

2) Second, clean again with disinfectant (0.5% chlorine solution) all hard surfaces and all frequently touched surfaces (e.g. benches, door handles, bedside rails, etc.).

- Same steps apply to cleaning floors. Allow surfaces to air dry completely
- Squeeze bottles can be used to apply detergent/disinfectants directly to surfaces or to cleaning cloths with minimal aerosol generation







Detergent and water solution:

• Refer to manufactures instructions

Chlorine solution for disinfectant:

- The minimum concentration of chlorine is 5000 ppm or 0.5% Liaise with your pharmacy department for mixing dilution.
- Chlorine solutions should be made fresh daily and gloves should be worn when handling and preparing solutions. Protective eyewear should be worn in case of splashing.
- Never mix chlorine solution with ammonia or any other cleanser.
- · Follow manufacturer's instructions for application and proper ventilation.
- Check to ensure the product is not past its expiration date.



Steps for Cleaning



Routine cleaning: the regular cleaning (and disinfection, where indicated) when the room is occupied to remove organic material, minimize microbial contamination, and provide a visually clean environment, emphasis is on surfaces within the patient zone.





Steps for Cleaning



Terminal cleaning: cleaning and disinfection after the patient is discharged or transferred. Includes the removal of organic material and significant reduction and elimination of microbial contamination to ensure that there is no transfer of microorganisms to the next patient.







Cleaning of isolation rooms/area

- Dedicate cleaning supplies for isolation rooms
- Cleaning supplies should be kept in and only used in isolation area/room
- Always be sure to clean/disinfect patient care equipment between each patient use if necessary and recommended. Check with the nurse looking after the patient



Cleaning of isolation rooms/area



- Damp dust/clean surfaces from cleanest to dirtiest area-
 - clean from high areas to low areas, outer to inner
- Wet mopping is recommended to minimize dust. Do not use brooms.
- Use a 3-bucket system for floor cleaning and disinfection
 1) Detergent and water 2) Disinfectant 3) Clean water for rinsing mobs
- Use clean water
- Spraying of disinfectants **is not** recommended. Use buckets or squeeze bottles. Chemicals in aerosols may cause irritation to eyes and mucous membranes.



Cleaning of isolation rooms/areas



- Clean patient care area at least once a day. More frequently if visibly dirty.
- All waste from the isolation area is considered contaminated and should be disposed of correctly (incinerator/sanitary landfill. Not at an unmonitored open dump)
- Cleaners/housekeeping to wear the appropriate PPE when cleaning isolation area/room





Any reusable item (cleaning towels, buckets, mops) should be appropriately disinfected after use:

- 1. **CLEAN** and remove visible waste using soap or detergent and water
- 2. **DISINFECT** using an effective disinfectant
- 3. WASH OFF any remaining disinfectant using clean water
- 4. Let air **DRY** or take outside to dry in the sun

When possible, use disposable towels. Throw towels away in a medical waste bin immediately after use





When using cloths and bucket/solution system to clean:

• avoid 'double-dipping' used cloths into the bucket containing clean, unused cloths.

Doing this can contaminate the remaining clean cloths which are in the solution and result in spreading microorganisms to surfaces that are wiped thereafter

 to maximise the use of cleaning cloths, they should be folded and rotated in a manner so as all surface areas of the cloth, including the front and back, are used progressively as elements are cleaned – more cloths may be required to clean 'high-touch surfaces' compared to the same surface area of 'low-touch surfaces'.



Patient care equipment



- Nursing staff are responsible for decontaminating patient care equipment
- Daily: Clean and disinfect all potential or actual contact surfaces during patient care including items such as blood pressure cuffs, pulse oximeters, stethoscopes, etc.
- Discharge: Wipe down mattresses and headboards with neutral detergent followed by sodium hypochlorite.
- Remove privacy curtains, placed in a bag in the room and then transported to be laundered
- No special treatment is necessary for window curtains, ceilings, and walls unless there is evidence of visible soil.





- Use PPE (gloves, gown, face shield OR mask and goggles) when handling used linen
- Scrape off excess blood and/or waste carefully into bucket
- Place linen into leak-proof bags or buckets labelled "soiled" for transport to laundry
- Use washing machine where possible
- Linen used in isolation should be clearly labelled and kept separate from other used linen







- Environmental cleaning and disinfection procedures must be followed consistently and correctly.
- **Training** for all cleaning staff is **mandatory**.
- Supervisors to monitor and reinforce compliance to ensure environmental surfaces are regularly and thoroughly cleaned.
- Store equipment and labelled solutions in clean area away from sunlight/heat
- Change solutions daily or when very dirty
- Monthly compliance audits report results to manager, give staff feedback and develop action plan for improvement







https://www.qld.gov.au/health/conditions/health-alerts/coronavirus-covid-19/industry/resources-and-fact-sheets-for-industry/covid-19-cleaning-anddisinfection-recommendations

https://apps.who.int/iris/bitstream/handle/10665/331508/WHO-2019-nCoV-IPC_long_term_care-2020.1-eng.pdf

https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/cleaningdisinfection.html

https://www.who.int/infection-prevention/publications/decontamination/en/

https://www.cdc.gov/hai/pdfs/resource-limited/environmental-cleaning-508.pdf



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