

Guidelines for disinfection of quarantine facility (for COVID-19)

Scope*:* This document aims to provide interim guidance about the environmental cleaning / decontamination in quarantine camp facilities (e.g. barracks, cubicles in rooms, offices, and toilets, etc.) where persons with potential exposure to COVID-19 have housed.

The causative agent involved in the current outbreaks of 2019-nCoV acute respiratory disease, the 2019-nCoV (genus: Betacoronavirus), belongs to the family of Coronaviridae, a large family of enveloped, positive-sense single-stranded RNA viruses. Coronaviruses are transmitted in most instances through large respiratory droplets and contact transmission, but other modes of transmission have also been proposed worldwide.

The time of survival and the conditions affecting the 2019-nCoV viability in the environment are currently unknown. According to studies assessing the environmental stability of other coronaviruses, the Severe Acute Respiratory Syndrome coronavirus (SARS-CoV) is estimated to survive several days in the environment and the Middle East Respiratory Syndrome-related coronavirus (MERS-CoV) more than 48 hours at an average room temperature (20°C) on different surfaces [1-3].

Environmental cleaning: Due to the potential survival of the virus in the environment for several days, the premises and areas potentially contaminated with the 2019-nCoV should be cleaned before their re-use, using products containing antimicrobial agents known to be effective against coronaviruses. Although there is lack of specific evidence for their effectiveness against 2019-nCoV virus, cleaning with water and household detergents and use of common disinfectant products should be sufficient for general precautionary cleaning. Tests carried out using SARS-CoV showed that sodium hypochlorite is effective.

These guidelines provide guidance for environmental cleaning in quarantine facilities housing people exposed/ potential exposure toCOVID-19 and have been adapted based on the Hospital Infection Prevention and Control guidelines drafted by NCDC in collaboration with WHO and other stakeholders.

Area/Items	Item/Equipment	Process	Method/ Procedure		
Clinical Area					
General clinical areas Floors (clinical areas) –	Dust mops Mop (No broom will be used for sweeping)	Sweeping Cleaning Daily mopping	 Sweep with the dust mop or damp mop to remove surface dust. Sweep under the furniture and remove dust from corners. Gathered dust must be removed using a hearth brush and shovel. The sweep tool should be cleaned or replaced after use. 		
daily mopping	Detergent/ sanitizer-hot water, sodium hypochlorite(1%) Three buckets (one with plain water and one with detergent solution; one bucket for sodium hypochlorite(1%)		 Prepare cleaning solution using detergent with warm water Use the three-bucket technique for mopping the floor, one bucket with plain water and one with the detergentsolution. First mop the area with the warm water and detergent solution. After mopping clean the mop in plain water and squeeze it. Repeat this procedure for the remaining area. Mop area again using sodium hypochlorite 1% after drying the area. In between mopping if solution or water is dirty change it frequently. Mop the floor starting at the far corner of the room and work towards thedoor. Clean articles between cleaning. Note: Mopping should be done twice a day 		
Ceiling and Walls	Sweeping tool Duster Bowl/ small bucket of soap solution Plain water	Damp dusting	 Damp dusting with a long handledtool for the walls and ceiling done with very little moisture, just enough to collect thedust. Damp dusting should be done in straight lines that overlap one another. Change the mop head/cover when soiled. Note: Should be done once a week or after examining a suspect case 		
	Care of mop	Hot water Detergent Sodium hypochlorite 1%	 Clean with hot water and detergent solution, disinfect it with sodium hypochlorite and keep for drying upsidedown. 		

Doors and door knobs	Damp cloth or Sponge squeeze mop Detergent	Thorough washing	 The doors are to be washed with a brush, using detergent and water once a week (on one defined day); gently apply cloth to soiled area, taking care not to remove paint, then wipe with warm water to remove excess cleaningagent. Door knobs and other frequently touched surfaces should be cleaned daily.
Isolation room	Detergent/ Sanitizer– warm water, sodium hypochlorite (1%) Three buckets (one with plain water and one with detergent solution); separate bucket for sodium hypochlorite (1%)	Terminal cleaning	 Before cleaning an isolation room, liaise with infection control team for details of any special requirements. Staff will be instructed on specific cleaning procedures required with reference to Safety uniform to be worn. Chemicals or disinfectants to be used. Also, if bed screen and shower screen are to be cleaned or changed, refer cleaning in isolation rooms.
All clinical areas/ Laboratories/ Wherever spill care is required	Sodium hypochlorite (1%) Rag piece Absorbent paper Unsterile gloves Spill care kit Mop Hot water	Blood and body fluid spill care	 Wear non-sterile gloves. For large spills, cover with absorbent paper/ rag piece if any broken glass and sharps, using a pair of forceps and gloves, carefully retrieve. Use a large amount of folded absorbent paper to collect small glass splinters. Place the broken items into the puncture proof sharps container. Cover the spill with sodium hypochlorite(1%)for 10–20 minutes contact time. Clean up spill and discard into infectious waste bin, and mop area with soap and hot water. Clean the mop and mop area with 1% sodium hypochlorite. Wash mop with detergent and hot water and allow it to dry.
Stethoscope	Alcohol-based rub/Spirit swab	Cleaning	 Should be cleaned with detergent and water. Should be wiped with alcohol based rub/spirit swab before each patient contact.
BP cuffs and covers	Detergent Hot water	Washing	 Cuffsshouldbewipedwithalcohol- based disinfectant and regular laundering is recommended for the cover.

Thermometer	Detergent and water Alcohol rub Individual thermometer holder	Cleaning	 Should be stored dry in individual holder. Clean with detergent and tepid water and wipe with alcohol rub in between patient use. Store in individual holder inverted. Preferably one thermometer for each patient.
Injection and dressing trolley	Detergent and water Duster Disinfectant (70% alcohol)	Cleaning	 To be cleaned daily with detergent and water. After each use should be wiped with disinfectant.
Refrigerators	Detergent and water Absorbent paper or clean cloth	Cleaning (weekly)	 Empty the fridge and store thingsappropriately. Defrost, decontaminate and clean with detergent. Dry it properly and replace the things. Weekly cleaning is recommended.

Area/Items	Item/Equipment	Process	Method/ procedure
Lodging area			
General cleaning	Detergent and warm water Mop Two buckets Clean utility gloves Handmops	Daily mopping floors Thorough washing	 Scrub floors with hot water and detergent with using minimal water. (Do not pour thewater.) Clean with plainwater. Allow to dry Hypochlorite 1% mopping canbe done. Note:Recommend general cleaning procedure should be done twice a day
Lockers, tables, cupboard, wardrobes, benches, shelves and cots	Damp duster Warm water Detergent Dry duster	Damp dusting	 Damp dust with warm waterand detergent.
Railings	Detergent/ Sanitizer-hotwater, sodium hypochlorite 1% Three small buckets/ or big bowls One with plain water One with detergent solution One for sodium hypochlorite 1%	Daily dusting	 Damp dust with warm water and detergent followed by disinfection with hypochlorite
Mirrors and Glass	Warm water Detergent water/ cleaning solution Damp cloth Wiper	Cleaning	 Using warm water and a small quantity of detergent and using a damp cloth, wipe over the mirror and surround, then using a dry lint-free cloth, buff the mirror and glass to a clean dryfinish.
Sluice room Stainless steel/ Any other sink	Powder cleanser Detergent powder Wiper Cloth	Cleaning	 Sinks are to be cleaned witha powder cleanser. Firstwetthesink.Sprinkleonalittle powder cleanser and work around the surface with a cloth, include the plughole. Do not use the powder cleanseron dry sink. After removing spillage and any stains, flush away with running water. Wipe down the surface of the sink.
Pantry furniture	Duster	Dusting	• Dampdust
Telephone	Warm water detergent solution Duster	General cleaning	 Damp dust with warm waterand detergent. Payingspecialattentiontotheear and mouth piece and dry it properly.
Desks	Damp cloth Furniture polish	Dusting	 Wipe top sides and draw handles with a damp cloth. Wooden desks should be cleaned with furniture polish and buffed to clear glows. Pen holder etc. to be cleaned ordusted.

Chairs (Vinyl)	Warm water and detergent	Cleaning	 Wipe down with warm water and detergent. Remove any marks under arms and seat. Check fordamage to stoppers, if stopper require replacement, report to maintenance department.
Furniture and fittings	Warm water and detergent Rag piece	Dusting	 Using warm water and detergent, damp dust all furniture and fittings, including chairs, stools, beds, tables, cupboards, wardrobes, lockers, trolleys, benches, shelves and storage racks, waste/ bins, fire extinguishers, oxygen cylinders, televisions window sills and dry properly.
Bed tables, bedside lockers	Warm water and detergent Wiper Duster	Cleaning	 Wipe down over bed table. Wipe top and underneath base and stand, using warm water and detergent. Dry oncompletion. Wipe down the bedside. Remove marks from fronts of draws and sides. Using warm water and detergent, wash the top to remove any sticky marks anddust.
Light switches and over-bed lights	Damp cloth (never wet) Detergent Warm water	Cleaning	 Light switches to be cleaned of dust, spots and finger marks. Clean with a damp cloth (never wet) and detergent. Over-bed lighting to be damp dusted. Clean with warm water and detergent.
Curtains	Soft clothes Water Mild soap solution	Cleaning	Clean with water and soap for curtains
White clothes	Sodium hypochlorite 1% Tap water	Washing	 Should be washed under running water and soaked in 1% sodium hypochlorite for 20minutes. Note: PPE should be worn while washing soiled linen.
Mattress and pillow covers (cloth)	Tap water	Washing	 Mattress and pillows should be covered with a reusable mattress cover. It should be changed for each patient and when soiled sent to the laundry according to schedule.
Mattress/ Pillow with rexin cover Normal/ without rexin	Sodium hypochlorite 1% Sunlight	Terminal Damp dusting and cleaning Drying in sunlight	 If with rexin cover, can be cleaned with 1% sodium hypochlorite before use for next patient If routine mattress, dry it in bright sunlight for 1-2
Water jars	Vim powder Soap and water	Cleaning	 Recommended boiled water for drinking Water jars should be scrubbed/ cleaned with soap and water and boiled water before filling withwater.

Areas	Agents / Toilet cleaner	Procedure	
Cleaning of toilets			
Toilet pot/ commode	Sodium hypochlorite 1%/ Soap powder / long handle angular brush	 Inside of toilet pot/commode: Scrub with the recommended agents and the long handle angular brush. Outside: Clean with recommended agents; use a nylon scrubber. 	
Lid/commode	Nylon scrubber and soap powder	Wet and scrub with soap powder and the nylon scrubber inside and outside	
Toilet floor	Soap powder and scrubbing brush/ nylon broom	 Scrub floor with soap powder and the scrubbing brush Wash with water Use sodium hypochlorite1% dilution 	
Тар	Nylon scrubber and soap powder	Wet and scrub with soap powder and the nylon scrubber.	
Outside sink	Soap powder and nylon scrubber	• Scrub with the nylon scrubber.	
Showers area / Taps and fittings	Warm water Detergent powder Nylon Scrubber	 Thoroughly scrub the floors/tiles with warm water and detergent Wipe over taps and fittings with a damp cloth and detergent. Care should be taken to clean the underside of taps and fittings. Taps should be dried aftercleaning 	
Soap dispensers	Detergent and water	 Daily dusting Should be cleaned weeklywith detergent and water and dried. 	

Note: Dry the floors with a separate drying mop.

References:

1. Van Doremalen N, Bushmaker T, Munster VJ. Stability of Middle East respiratory syndrome coronavirus (MERS-cov) under different environmental conditions. Euro surveillance : bulletin Europeen sur les maladies transmissibles = European communicable disease bulletin. 2013 Sep 19;18(38).

2. Otter JA, Donskey C, Yezli S, Douthwaite S, Goldenberg SD, Weber DJ. Transmission of SARS and MERS coronaviruses and influenza virus in healthcare settings: the possible role of dry surface contamination. The Journal of hospital infection. 2016 Mar;92(3):235-50.

3. Lai MY, Cheng PK, Lim WW. Survival of severe acute respiratory syndrome coronavirus. Clinical infectious diseases : an official publication of the Infectious Diseases Society of America. 2005 Oct 1;41(7):e67-71.

4. Hulkower RL, Casanova LM, Rutala WA, Weber DJ, Sobsey MD. Inactivation of surrogate coronaviruses on hard surfaces by health care germicides. American journal of infection control. 2011;39(5):401-7.

5. National Guidelines For Infection Prevention And Control In Healthcare Facilities, Mohfw, Goi