

GUIDELINES FOR ENVIRONMENTAL CLEANING AND DECONTAMINATION FOR COVID -19 FACILITIES, KGMU, LUCKNOW

Corona virus Disease 2019 (COVID -19) is an acute respiratory disease caused by a novel Corona virus (SARS-CoV-2), transmitted in most instances through respiratory droplets, direct contact with cases and also through contaminated surfaces/objects. Though the virus survives on environmental surfaces for varied period of time, it gets easily inactivated by chemical disinfectants. In view of the current situation regarding COVID-19 disease in India, we need to be prepared for the handling of suspect and confirmed cases, who might be present to the KGMU, hospital

CASE DEFINITION

When to suspect

- All symptomatic individuals who have undertaken international travel in the last 14 days
or
- All symptomatic contacts of laboratory confirmed cases
or
- All symptomatic healthcare personnel (HCP)
or
- Hospitalized patients with fever AND cough and/or shortness of breath
or
- Asymptomatic direct and high risk contacts of a confirmed case (should be tested once between day 5 and day 14 after contact)
- In Hotspots/cluster (as per MoHFW) and in large migration gatherings/evacuees centres: All symptomatic Influenza like illness (fever, cough, sore throat, runny nose)

Symptomatic refers to fever/cough/shortness of breath.

Direct and high-risk contacts include those who live in the same household with a confirmed case and HCP who examined a confirmed case without PPE or with a breach in PPE

Confirmed case

1. A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms

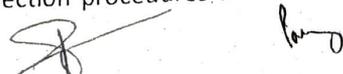
Purpose and Scope: This document aims to provide interim guidance about the environmental cleaning/decontamination of identified for COVID-19 management in the KGMU. This SOP is applicable to current phase of COVID-19 pandemic to standardize the procedures and responsibilities for the decontamination and disinfection of place designated for COVID patient management (isolation wards, ICUs, OTs, Microbiology, pathology labs, active quarantine quarters, COVID ambulances, mortuary, outdoor).

Note: These guidelines are supplementary to the existing hospital infection control manual of KGMU. These guidelines have been adapted from the existing MOHFW India, WHO and CDC recommendations. These may be subjected to vary with contemporary latest scientific literature/ evidences/ GOI advisories.

These procedures are meant to guide Nodal officers, staff nurses, sanitary supervisors, technicians, housekeeping staff.

GUIDELINES FOR ENVIRONMENTAL CLEANING AND DISINFECTION:

Environmental cleaning is part of standard precautions, which should be applied to all persons in all healthcare facilities. Ensure that cleaning and disinfection procedures are followed consistently and



correctly.

Cleaning agents and disinfectants available at KGMU:

1. **Cleaning agent:** Neutral detergent.

2. **Disinfectant:**

- a) Bleaching powder (70% strength)
- b) Sodium hypochlorite (4-6% available chlorine)
- c) Accelerated H₂O₂ wipes (for surface disinfection in corona ward patient room)
- d) 7.35% H₂O₂ & 0.23 % Per acid acetic (used for fogging OT & COVID positive patient room after discharge/ floor & wall cleaning within COVID ward)
- e) Absolute Alcohol (Isopropyl or ethyl alcohol)
- f) 7% Lysol.

3. **Method to prepare disinfectants:** Prepare fresh disinfectant solution daily

a) **1% Bleaching powder solution-**

Prepare 7 gms of bleaching powder (bleaching powder with 70% strength) in 1 litre of water.

b) **1% Hypochlorite solution-** For instrument and bench and small spill

Prepare by mixing 200 ml (of 5% available chlorine hypochlorite) in 800 ml of water (or 1 part mixed with 4-part water).

c) **7.35% H₂O₂ with 0.23 % per oxy acetic acid (BS Per oxy):** Prepare by mixing 25 ml in 1 liter of water

d) **70% Alcohol:** Prepare by mixing 700 ml of absolute alcohol in 300 ml of water to make 1 liter.

e) **7% Lysol:** 15 ml in 1 liter of water.

GENERAL GUIDELINES FOR CLEANING:

1. Start cleaning from cleaner areas and proceed towards dirtier areas, high to low areas and top to bottom.
2. Where possible, seal off areas where the confirmed case has visited, before carrying out cleaning and disinfection of the contaminated environmental surfaces. This is to prevent unsuspecting persons from being exposed to those surfaces
3. When cleaning areas where a confirmed case has been, cleaning staff should be attired in suitable PPE. Disposable gloves should be removed and discarded if they become soiled or damaged, and a new pair worn. All other disposable PPE should be removed and discarded, after cleaning activities are completed. Goggles, if used, should be disinfected after each use, according to manufacturer's instructions. Hands should be washed with soap and water immediately after the PPE is removed.
4. **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 virus that causes COVID requires **thorough cleaning followed by disinfection.**
5. Disinfectant or 1% sodium hypochlorite solution should be applied to surfaces using a damp cloth. **They should not be applied to surfaces using a spray pack, as coverage is uncertain and spraying may promote the production of aerosols.** The creation of aerosols caused by splashing liquid during cleaning should be avoided.
6. A steady sweeping motion should be used when cleaning either floors or horizontal surfaces, to prevent the creation of aerosols or splashing. Cleaning methods that might aerosolize infectious material, such as the use of compressed air, must not be used.
7. Never use any broom (JHADU) in hospital wards, OPDs.
8. Clean and disinfect all surfaces, this includes horizontal, vertical and contact surfaces.
9. Clean the surface immediately, when spills (**see protocol for spill management**) occur and when visibly soiled
10. Wipe all frequently touched areas (e.g. lift buttons, hand rails, doorknobs, arm rests, tables, air/light controls, keyboards, switches, etc.) and toilet surfaces with chemical disinfectants and allow to air dry. 1% sodium hypochlorite solution can be used. Alcohol can be used for surfaces, where the use of bleach is not suitable.
11. Clean toilets, including the toilet bowl and accessible surfaces in the toilet with disinfectant or 1% sodium hypochlorite solution.
12. If a bedpan is used, after disposing of excreta from it, the bedpan should be cleaned with a

- neutral detergent and water, disinfected with a 1% chlorine solution, and then rinsed it with clean water; the rinsed water should be disposed of in a toilet. There is limited benefit of adding chlorine to the fresh excreta and, possibly this may introduce risk associated with splashing.
13. Wipe down all accessible surfaces walls as well as blinds with disinfectant or bleach solution.
 14. Discard cleaning items made of cloth and absorbent materials, e.g. mop head and wiping cloths, into biohazard bags after cleaning and disinfecting each area. Wear a new pair of gloves and fasten the double-bagged biohazard bag with a cable tie.
 15. Disinfect buckets by soaking in disinfectant or bleach solution, or rinse in hot water before filling.
 16. Biohazard bags should be properly disposed-off, upon completion of the disinfection work as per BMW guidelines of KGMU for COVID.

LAUNDRY:

1. All individuals dealing with soiled bedding, towels or clothes from patient with COVID-19 infection should wear proper PPE before touching it.
2. Soiled linen should be placed in clearly labelled, leak proof bags and containers
3. A separate room needs to be assigned to perform laundry services for cleaning of all the clothes and other washing related activities.
4. Machine washing with warm water at 60-90C with laundry detergent is recommended.
5. If machine washing is not possible, linens should be soaked in hot water and soap in a large drum. Avoid splashing. The linen should be emptied and needs to be placed in 1% hypochlorite up to 30 minutes and finally washed with clean water.
6. Linens allowed to dry fully in sunlight.

Areas and Frequency of Cleaning as per Risk Stratification

Areas and Frequency of Cleaning as per Risk Stratification To be supervised by In Charge House Keeping and Staff Nurse posted in the Designated Area, keeping in mind the following times: M: Morning (6AM to 8Am) ; A: Afternoon (12PM to 2PM); E: Evening (4PM to 6PM); N: Night (8PM to 10PM) .

High Risk Areas: Nursing station and all corridors of the Isolation (COVID 19 wards), IDH, COVID OTs, Fever clinic; Individual rooms in the COVID-19 ward, Medical examination room, sample collection areas (high concentration of infectious particles while coughing, sneezing, gag reflex during nasopharyngeal & oropharyngeal sample collection). Toilet and bathroom of COVID areas, PPE Doffing area, area for Bio Medical Waste collection, segregation and disposal. Laboratories testing for COVID-19 from respiratory samples.

Area	Cleaning	Disinfection	Contact Time	Frequency
COViD patient room/ ICU surfaces (Bed mattress, bed rails, i.v poles, medicine trolley, ventilator surfaces/ tubing, tables, chairs, sofa, light switches etc.)	Detergent and water	H2O2 wipes (BS hydro)	1 minute	3 times per day [M, E, N]
COVID patient room and immediate corridors/ICU/ OT floors	Mopping with Detergent and water)	7.35% H2O2 with 0.23 % per acetic acid (BS Peroxy)	5 minutes	3 times per day [M, E, N]
COVID ward outer corridors	Mopping with Detergent and water	1% Hypochlorite	10 minutes	3 times per day [M, E, N]
COVID ward outer corridor metal surfaces (lift switches etc.) and steel	Detergent and water	70% Alcohol	1 minute	3 times per day [M, E, N]

railings/ steel furniture				
Nursing Station (All surfaces/ floor and wall)	Detergent and water	1% Hypochlorite Mop	10 minutes	3 times per day [M, E, N]
Toilets in COVID ward and Isolation Rooms	Cleaning with detergent and water/ toilet cleaner	1% Hypochlorite Wash	10 minutes	3 times per day [M, E, N]
Floors of BMW Area	Mopping of Floors with Detergent	1% Hypochlorite Mop	10 minutes	3 times per day [M, E, N]
Walls up to 7 feet Height	Cleaning with detergent and water (Damp mopping of walls should be done in straight lines that overlap one another)	1% Hypochlorite Hand Mopping	10 minutes	Once daily [M]
High Touch Surface: Doors, Handles, Door knobs, Tables, light switches, bedrails	Not needed unless visibly soiled. If soiled with water and detergent. Door or almirah knobs/ handles	1% Hypochlorite Hand Mopping 70% alcohol	10 minutes 1 minute	3 times per day [M,E,N]
Terminal Disinfection of Isolation Rooms	Fogging of room Mopping of Floors with Detergent	7.35 % H ₂ O ₂ with 0.23% Per acetic Acid 1% Hypochlorite Mop	5 minutes 10 minutes	Discharge, Shifting or Death
<u>OT sterilization and disinfection</u> Fogging of room OT surfaces	Use fogging machine First clean surfaces with detergent and water Mopping of walls and floor with Detergent and water	7.35 % H ₂ O ₂ with 0.23% Per acetic Acid 7.35 % H ₂ O ₂ with 0.23% Per acetic Acid 7.35 % H ₂ O ₂ with 0.23% Per acetic Acid Per acetic Acid /1% Hypochlorite Mop (for spill)	5 minutes 5 minutes 5 minutes 10 minutes	After every procedure
OT metal surgical instruments	Cleaning in enzymatic cleaner/ detergent and water	Autoclaving		
OT/ ICU heat sensitive instruments Endoscopes	Cleaning in enzymatic cleaner/ detergent and water	Plasma sterilization		After every procedure
Humidifiers (Non- autoclavable) Humidifiers (auto clavable)	Cleaning in enzymatic cleaner/ detergent and water	2.4% glutaraldehyde Autoclave	Over-night (Chemical sterilization)	
Non-Critical Equipment: Thermal Scanner, Stethoscope, BP Cuff,	Clean with cloth soaked in detergent and water	70% Alcohol wipe/ H ₂ O ₂	Air Dry	After Each Use

Intercom, Keyboards, Mouse etc.	followed by water if soiled	wipes (BS hydro)		
Patient Lift	Cleaning with detergent and water	1% Hypochlorite Wash	10 minutes	4 times per day [M, A, E, N]
Ambulance / Hearse Van Used to Transfer Positive / Suspected Positive Patients	Mopping of Floors with Detergent	1% Hypochlorite Mop	10 minutes	After each use

Moderate Risk Area: Reception Fever Clinic, Emergency and Triage area, enclosed areas like Lifts and Toilets, Active quarantine Facility/ hostels.

Area	Cleaning	Disinfection	Contact Time	Frequency
Reception Fever Clinic, including billing counter and Patient Waiting Area	Mopping of Floors with Detergent	1% Hypochlorite Mop	10 minutes	3 times per day [M, A, E]
Emergency & Triage Areas	Mopping of Floors with Detergent	1% Hypochlorite Mop	10 minutes	3 times per day [M, A, E]
Floor Area Outside OT	Mopping of Floors with Detergent	1% Hypochlorite Mop	10 minutes	3 times per day [M, A, E]
Floor Area of Changing rooms	Mopping of Floors with Detergent	1% Hypochlorite Mop	10 minutes	3 times per day [M, A, E]
Floor area of all ICUs other than COVID Special ICU.	Mopping of Floors with Detergent	1% Hypochlorite Mop	10 minutes	2 times per day [M, A, E]
High Touch Surfaces: Wooden Doors, Handles, Door knobs, Tables, Patient Stool (Fever Clinic, Emergency and Triage area, enclosed areas like Lifts and Toilets. Staff Quarantine Facility hostels.)	Damp Hand Mopping with Detergent and water Metal knobs to be cleaned with detergent and water(if soiled)	1% Hypochlorite Hand Mopping 70% alcohol	10 minutes 1 minute	4 times per day [M,A,E,N]
Toilets in Fever Clinic, Emergency and Triage	Cleaning with detergent and water/ Toilet cleaner	1% Hypochlorite Wash	10 minutes	3 times per day [M, A, E]
Non Critical Equipment: Thermal Scanner, Stethoscope, BP Cuff, Intercom, Keyboards, Mouse etc	Clean if soiled with moist cotton/linen/absorbable cloth with detergent and water	70% Alcohol wipe	Air Dry	After Each Use
All Lifts in moderate risk area	Cleaning with detergent and water	1% Hypochlorite Wash	10 minutes	3 times per day [M, E, N]
Active Quarantine Facility -Hostels	Mopping of Floors with Detergent	1% Hypochlorite Mop	10 minutes	2 times per day [M, E]

Low Risk Areas: Hospital wards other than the Isolation / active quarantine Ward (COVID-19 Ward), Kitchen, Administration area, Laboratories (those who are NOT testing for COVID-19), Faculty Lounge, Departmental offices, corridors, OPD's, All Staircases, CSSD, Laundry, Store and Engineering sections, Reception Entrance.

Area	Cleaning	Disinfection	Contact Time	Frequency
Other Areas : Hospital wards etc	Mopping of Floors with Detergent and	1% Hypochlorite	10 minutes	2 times per day [M, A]

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	water	Mop/Lysol		
Department offices, corridors, OPD, All Staircases, CSSD, Kitchen, Laundry, Store and Engineering sections, Reception Entrance	Mopping of Floors with Detergent	Lysol	10 minutes	2 times per day [M, A]
Laboratories involved in processing of samples other than respiratory samples	Mopping of Floors and other surfaces with Detergent and water	Lysol/phenyl 1% Hypochlorite	10 minutes	2 times per day [M, A]
High touch surfaces: Handles, Door knobs, Tables, Patient Stool (Kitchen, Administration area, Laboratories (those who are NOT testing for COVID-19), Faculty Lounge, Department offices, corridors, OPD, All Staircases, CSSD, Laundry, Store and Engineering sections, Reception Entrance)	Damp Hand Mopping with Detergent and water	1% Hypochlorite Hand Mopping	10 minutes	3 times per day [M,E,N]
Outdoor area outside IDH, Neurology, Fever clinic, Accident and Emergency screening area	Usual cleaning as per swachata abhiyan	1% Bleaching powder solution	10 min	Once a day / 505

Note: Wards admitting COVID-19 positive patient are to be considered as high-risk areas and must be cleaned and disinfected as per the protocols of high-risk area (as described above).

Protocol for Spill Management:

Every ward/ICU/OT must have a spill Kit must contain following items:

- a) Full set of PPE.
- b) Hypochlorite, 1%
- c) plastic scoop,
- d) tissue paper
- e) Detergent pouch

Procedure for Spill management

1. Cover the spill with tissue paper
2. Pour 1% hypochlorite solution on it and leave for 10-15 minutes. (for large blood spill >10 ml use 10% hypochlorite solution)
3. Remove the soaked tissue paper with the help of scoop and dispose in yellow bin.
4. Finally clean the area with detergent and water and let it air dry.

CLEANING OF AMBULANCES BEFORE USING IT AGAIN

Decontamination of ambulance needs to be performed every time a suspect/confirmed case is transported in the ambulance. The following procedure must be followed while decontaminating the ambulance:

1. Equipment disinfection:

Equipment and surfaces are contaminated if they have come in contact with patient's skin, blood or body fluids. These can spread infection. Therefore, it is mandatory that these are cleaned and disinfected using 1% sodium hypochlorite or alcohol based disinfectants at least once daily and after every patient contact. Patient care items and surfaces that can contribute to the spread of infection include:

- Stethoscopes
- Blood pressure cuffs
- Monitors
- Stretchers, backboards, and immobilization devices
- Laryngoscope blades
- Radios/mobiles
- Shelves
- Door handles
- Other items and surfaces in ambulance or transport vehicle

1. Full PPE is recommended for sanitation staff cleaning the ambulance.
2. Disinfect (damp wipe) all horizontal, vertical and contact surfaces with a cotton cloth saturated (or microfiber) with a 1% sodium hypochlorite solution. These surfaces include, but are not limited to **stretcher, Bed rails, Infusion pumps, IV poles/Hanging IV poles, Monitor cables, telephone, Countertops, sharps container.**
3. Damp mop floor with 1% sodium hypochlorite disinfectant.
4. Allow contact time of 30 minutes and allow air dry.
5. Discard disposable items and Infectious waste in a Bio/Hazard bag. The interior is sprayed with 1% sodium hypochlorite. The bag is tied and exterior is also decontaminated with 1% sodium hypochlorite and should be given to the hospitals to dispose of according to their policy.
6. Change cotton mop and water containing disinfectant after each cleaning cycle.

Note: Dispose of the PPE and wash hands as per the guidelines.

DISINFECTION OF MORTUARY: (IN CASE OF Handling of Suspected COVID patient)

General guidance for workers / employee in mortuary:

1. After handing over the body of the deceased, the mortuary must be cleaned using 1% Sodium Hypochlorite.
2. All the surfaces, stretchers should be properly cleaned with detergent and water and disinfected with 1% Hypochlorite solution for a minimum period of 10minutes.
3. Metal surfaces should be disinfected with 70% alcohol.

OUTDOOR AREAS OF THE UNIVERSITY:

Outdoor areas have less risk than indoor areas due to air currents and exposure to sunlight. These include parks, roads outside the hospital building, canteens and cafeterias, etc. Cleaning and disinfection efforts should be targeted to frequently touched/contaminated surfaces.

Hand sanitizing stations should be installed in office premises (especially at the entry) and near high contact surfaces.

Frequent and proper hand hygiene is one of the most important measures to prevent infection with COVID-19 infection.

In a meeting/conference/office room, if someone is coughing, without following respiratory etiquettes or mask, the areas around his/her seat should be vacated and cleaned with 1% sodium hypochlorite

Step 2: Wash cleaning buckets, cloths, brushes and mops with detergent and water daily, or sooner if visibly dirty.

Step 3: Rinse in clean water.

Step 4: Dry completely before reuse. (Wet cloths and mop heads are heavily contaminated with microorganisms.)

PRECAUTIONS TO BE TAKEN BY CLEANING STAFF AFTER COMPLETING THE CLEAN-UP AND DISINFECTION:

1. Staff should wash their hands with soap and water immediately after removing the PPE, and when cleaning and disinfection work is completed.
2. Discard all used PPE in a double bagged biohazard bag, which should then be securely sealed and labelled.
3. The staff should be aware of the symptoms and should report to their occupational health service if they develop symptoms.

DEFINITIONS FOR PERSONAL PROTECTION OF THE CLEANING STAFF

Persons involved in sanitisation work are exposed to many infectious agents during their work. Transmission of infectious disease can occur while providing care, transport, and body recovery/removal etc. Effective infection prevention and control is central to providing high quality health care for patients and a safe working environment for those that work in healthcare settings. Implementation of good infection control practices help to minimize the risk of spread of infection to patients and staff. It is highly recommended that procedures and responsibilities for decontamination and disinfection of these areas be clearly defined before transporting a patient under investigation. Persons involved in the cleaning of these areas should be aware about common infection, prevention and control practices. All personnel should be trained in donning and doffing (putting on and taking off) techniques for personnel protective equipment (PPE).

Note: All concerned staff involved in the sanitation work (sanitary supervisors, sweepers, housekeeping staff should be trained on correct procedures for wearing PPE)

Standard Precautions

Standard precautions are based on the principle that all blood, body fluids, secretions, excretions (except sweat), non-intact skin, and mucous membranes may contain transmissible infectious agents. These set of measures are intended to be applied to the care of all patients in all healthcare settings, regardless of the suspected or confirmed presence of an infectious agent. Standard precautions include:

- Hand hygiene
- Use of barrier precautions or personal protective equipment
- Safe injection practices

Hand Hygiene (Annexure: 1,II)

Hand hygiene is the single most important practice to reduce the transmission of infectious agents in healthcare settings. The term "hand hygiene" includes both hand washing with either soap and water, and use of alcohol-based products (gels, rinses, foams) that do not require the use of water. It is important to ensure the availability of hand rub products at all times in the working areas to ensure hand hygiene compliance

Use of barrier precautions or Personal Protective Equipment (PPE) (Annexure: 3,4,6)

COVID-19 is primarily a droplet transmitted infection, with indirect transmission through fomites/contaminated surfaces/objects. The standard precautions on use of personal protective equipment, as per the risk profile are given in annexure: The Healthcare worker must possess knowledge and skill regarding use and removal of the PPE after its use.

GUIDELINES FOR PPE TO WEAR WHILE CARRYING OUT CLEANING AND DISINFECTION WORKS.
PPE use is based on the risk of exposure (eg: type of activity) and the transmission dynamics of the pathogen. The type of PPE used when caring for COVID-19 patients will vary according to the setting and type of personnel and activity.

1. Wear heavy duty/disposable gloves, disposable long-sleeved gowns, eye goggles or a face shield, and a medical mask (please see the PPE document for details)
2. Avoid touching the nose and mouth (goggles may help as they will prevent hands from touching eyes)
3. Disposable gloves should be removed and discarded if they become soiled or damaged and a new pair worn
4. All other disposable PPE should be removed and discarded after cleaning activities are completed. Eye goggles, if used, should be disinfected after each use, according to the manufacturer's instructions.
5. Hands should be washed with soap and water/alcohol based hand rub immediately after each cleaning

TABLE : GUIDANCE ON USE OF PPE BASED ON LEVEL OF EXPOSURE

Settings	Target personnel	Activity	PPE
DESIGNATED COVID AREAS			
ICU	Cleaner/Sweeper/HA	Disinfection	N95 Goggles Gown (Water resistant) Heavy Duty Gloves Boots and Hood
Isolation wards	Cleaner/Sweeper/HA	Disinfection/Patient Shifting	N95 Heavy Duty Gloves/ Gloves Goggles Gown (Water resistant) Boots, Hood
Screening Triage areas	Cleaner/Sweeper/HA	Disinfection/Patient Shifting	Medical Mask Gloves/ Heavy Duty Gloves
COVID Labs	Cleaner/Sweeper/HA	Disinfection	N95 mask Gloves/Heavy Duty Gloves
COVID OTs	Cleaner/Sweeper/HA	Disinfection/Patient Shifting	N95 mask Gloves/ Heavy Duty Gloves
Ambulance for COVID patients	Cleaner/Sweeper/HA	Disinfection	N95 mask Heavy Duty Gloves Gown (water resistant)
NON-COVID AREA:			
Trauma centre	Cleaner/Sweeper/HA	Disinfection/Patient Shifting	Medical mask Gloves
General OPDs	Cleaner/Sweeper/HA	Disinfection	Medical mask Gloves

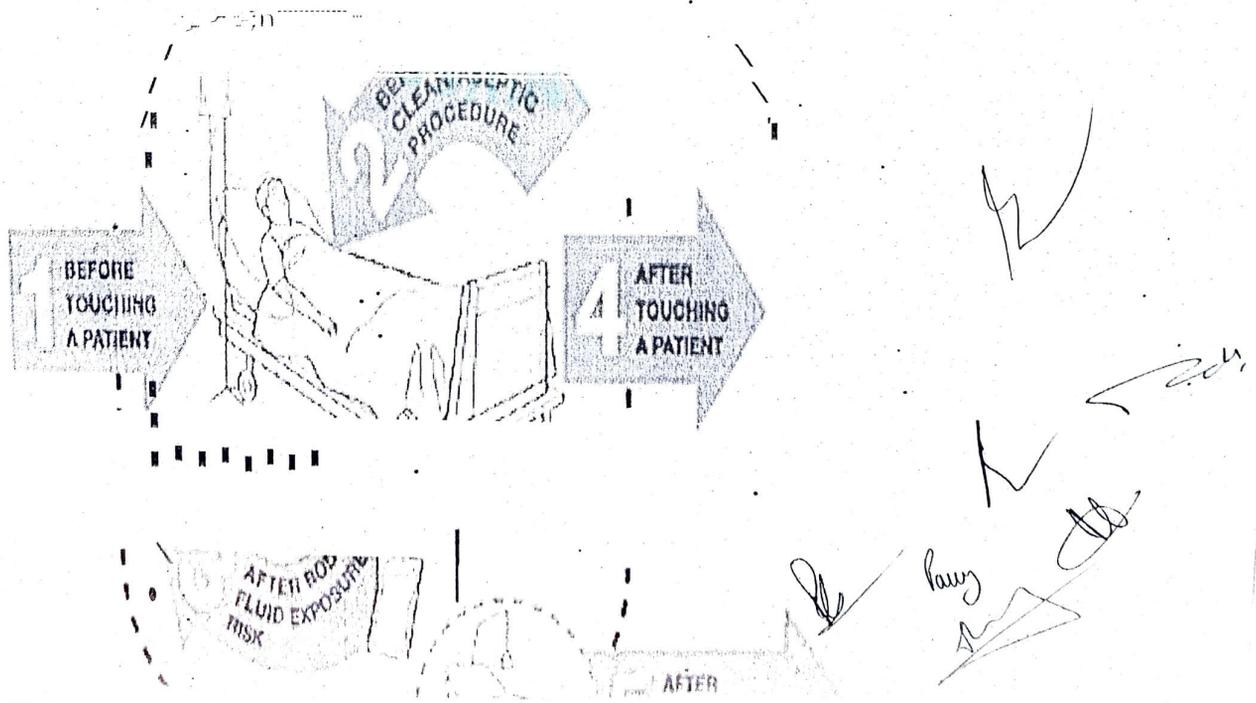
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General Ward/Private Wards	Cleaner/Sweeper/HA	Disinfection/Patient Shifting	Medical mask Gloves (Patient Shifting)
ICUs	Cleaner/Sweeper/HA	Disinfection/Patient Shifting	Medical mask Cap Gown (Water resistant) Gloves
OTs	Cleaner/Sweeper/HA	Disinfection/Patient Shifting	Medical mask Cap Gown (Water resistant) Gloves

Precaution during preparation of disinfectant solution:

1. Gloves should be worn when handling and preparing bleach solutions.
 2. Protective eye wear should be worn in case of splashing
 3. Bleach solution should be:
 - a. Fresh solution should be made up daily
 - b. Used mainly on hard, non-porous surfaces (it can damage textiles and metals)
 4. Sufficient time is required to kill the virus, i.e., at least 10 minutes' contact time
- 70% Alcohol can be used to wipe down surfaces where the use of bleach is not suitable, e.g. metal.

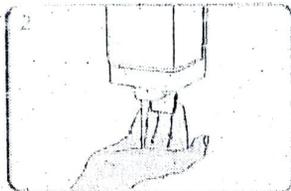
ANNEXURE 1: Hand Hygiene: Moments of Hand Hygiene



Hand-washing technique with soap and water



1 Wet hands with water



2 Apply enough soap to cover all hand surfaces



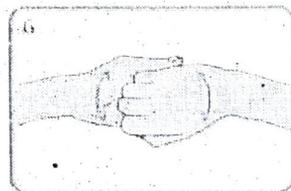
3 Rub hands palm to palm



4 Rub back of each hand with palm of other hand with fingers interlaced



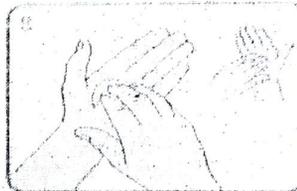
5 Rub palm to palm with fingers interlaced



6 Rub with back of fingers to opposing palms with fingers interlocked



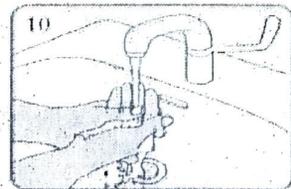
7 Rub each thumb clasped in opposite hand using a rotational movement



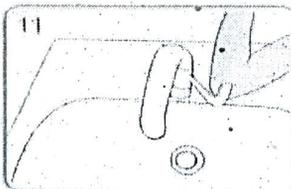
8 Rub tips of fingers in opposite palm in a circular motion



9 Rub each wrist with opposite hand



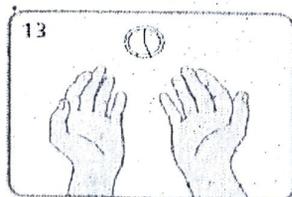
10 Rinse hands with water



11 Use elbow to turn off tap



12 Dry thoroughly with a single paper towel



13 Hand washing should take 15-30 seconds

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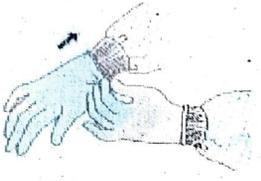
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ANNEXURE 3: Donning procedures should be diligently & carefully followed as given below.

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of contamination required, such as standard and contact, droplet or aerosol, and contact and aerosol. The sequence for putting on and removing PPE should be followed in the specific order of PPE.

- 1. GOWN**
 - Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
 - Fasten at back of neck and waist
- 2. MASK OR RESPIRATOR**
 - Use ties or elastic bands at middle of head and neck
 - Fit flexible band to nose bridge
 - Fit snug to face and below chin
 - Fit check respirator
- 3. GOGGLES OR FACE SHIELD**
 - Place over face and eyes and adjust to fit
- 4. GLOVES**
 - Extend to cover wrist of isolation gown

USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

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HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE)

EXAMPLE 1

There are a variety of ways to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Here is one example. Remove all PPE before exiting the patient room except a respirator if worn. Remove the respirator after leaving the patient room and closing the door. Remove PPE in the following sequence:

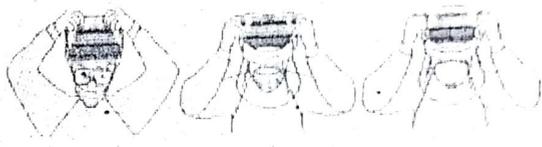
1. GLOVES

- Inset of gloves are not contaminated
- If your hands get contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Using a gloved hand, grasp the palm area of the other gloved hand and peel it first away
- Roll removed glove or glove pair
- Slide fingers of opposite hand under remaining glove or glove pair and peel it away from your hand, glove
- Discard gloves in a waste container



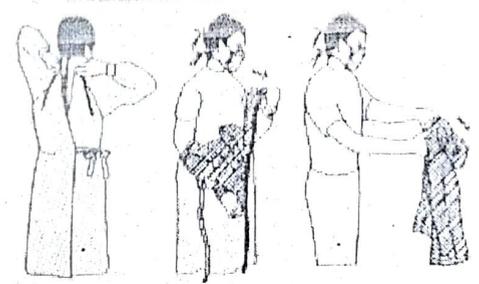
2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated
- If your hands get contaminated during goggles or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band or ear pieces
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container



3. GOWN

- Front of gown and sleeves are contaminated
- If your hands get contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Untie or unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties
- Roll gown away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Hold in roll into a bundle and discard in a waste container

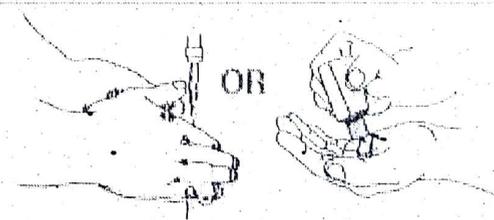


4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated - DO NOT TOUCH
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container



5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



PERFORM HANDHYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE

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ANNEXURE 5: Masks Management

If medical masks are worn, appropriate use and disposal is essential to ensure they are effective and to avoid any increase in risk of transmission associated with the incorrect use and disposal of masks. The following information on correct use of medical masks derives from the practices in healthcare settings:

Guidelines for use of mask

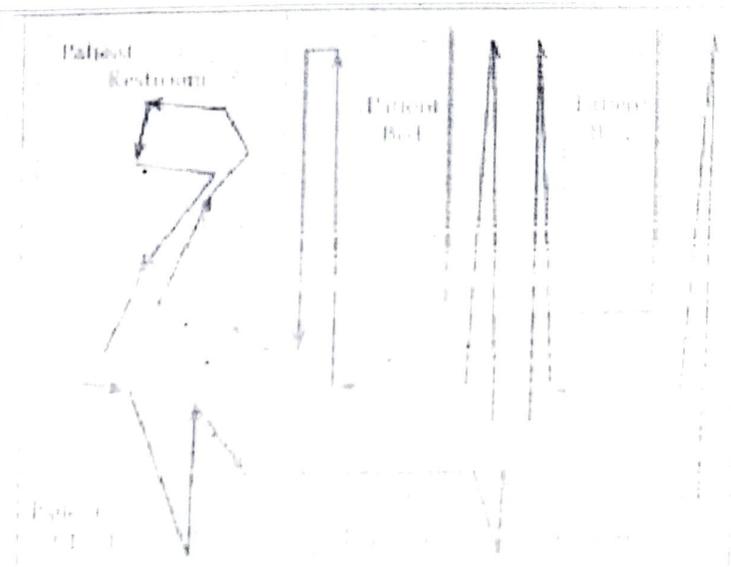
The correct procedure of wearing triple layer surgical mask

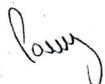
1. Perform hand hygiene
2. Unfold the pleats; make sure that they are facing down.
3. Place over nose, mouth and chin
4. Fit flexible nose piece over nose bridge.
5. Secure with tie strings (upper string to be tied on top of head above the ears - lower string at the back of the neck.)
6. Ensure there are no gaps on either side of the mask, adjust to fit.
7. Do not let the mask hanging from the neck.
8. Change the mask after six hours or as soon as they become wet.
9. Disposable masks are never to be reused and should be disposed off.
10. While removing the mask great care must be taken not to touch the potentially infected outer surface of the mask
11. To remove mask first untie the string below and then the string above and handle the mask using the upper strings.
12. **Disposal of used masks:** Used mask should be considered as potentially infected medical waste. Discard the mask in a closed bin (preferably yellow bin) immediately after use.

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ANNEXURE 6: Method of floor cleaning-

1. Remove the gross dirt with the help of wiper and the dust with dry/ dust mop.
2. Only do wet mopping of the floors (Never use dry broom).
3. Move from the clean area to dirty area
4. Move from high level surface to low level surface
5. Move from Top to Bottom, clean ceilings, followed by walls, followed by floors.
6. When cleaning the floor, begin at the end i.e. farthest from the door and move towards the door (in to out)
7. Remove visibly soiled and dirty items like bandage etc. before starting cleaning
8. Restroom should always be cleared last
9. Never shake the mops
10. Change mop after each room, after isolation room and after cleaning blood and bodily fluid spills
11. Do Not double dip the mops at one time
12. Cover 120 sq.ft. i.e. 30 tiles of 2x2 ft each in one dip.
13. Change the mop solution after 240 sqft i.e. 60 tiles.
14. Follow the figure of 8 technique
15. Wash the mop with soap and water and dry in sunlight.
16. Dispose the mop in yellow bin if it becomes too dirty to be used again.



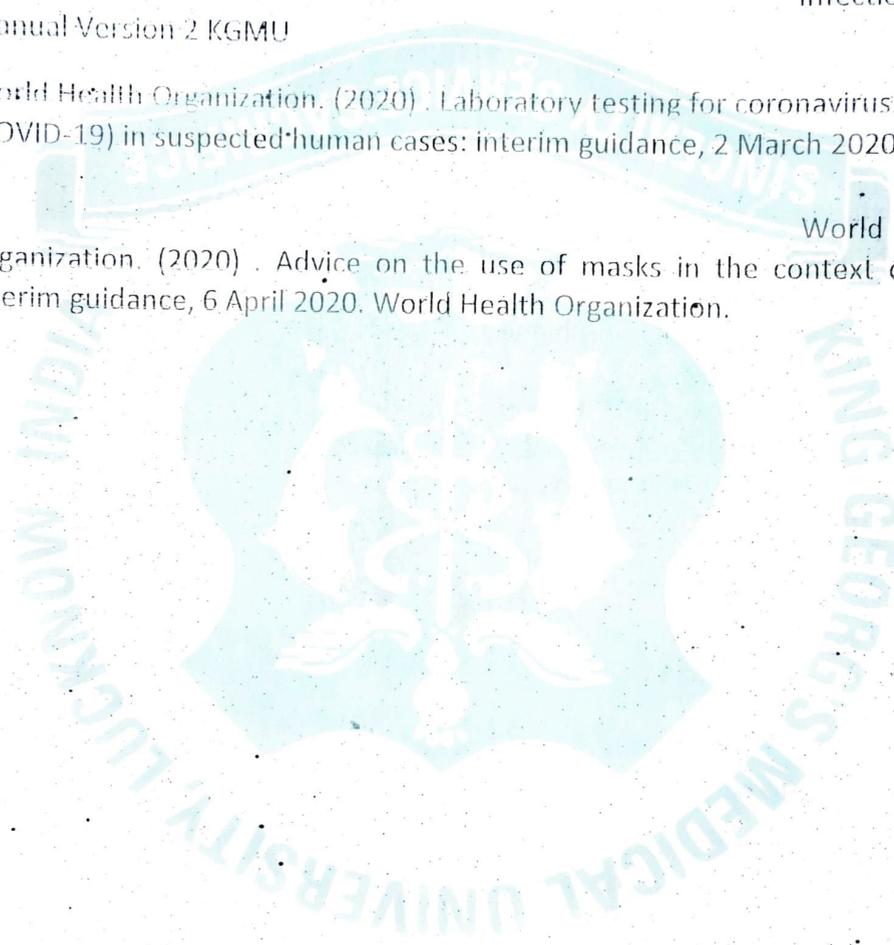








References: -

1. COVID 19 Preparedness document AIIMS, New Delhi. Version 1.1.
2. COVID 19 Guidelines for disinfection of Common public places including offices, MOHFW
3. COVID 19 SOPs for transporting or suspect or confirmed cases of COVID 19, MOHFW.
4. Infection control Manual Version 2 KGMU
5. World Health Organization. (2020) . Laboratory testing for coronavirus disease 2019 (COVID-19) in suspected human cases: interim guidance, 2 March 2020
6. World Health Organization. (2020) . Advice on the use of masks in the context of COVID-19: interim guidance, 6 April 2020. World Health Organization.



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Checklist for Monitoring the Sanitation work at The HF

Name of facility/Ward/Unit/Vehicle

Name of sanitary Inspector.....

Initials of housekeeping staff:

Date

Surfaces	Time of cleaning				Status of cleaning		
	Time	Time	Time	Time	Cleaned	Not cleaned	Comments (if any)
Rooms							
Walls							
Floor							
Doorknobs(Outer)							
Doorknobs(inner)							
Room Sink							
Bed Rails							
Table tops							
Chairs							
Patient Trolley							
I. V. Poles							
Medicine Trolley							
Light/switches							
Toilets							
Toilet Seats							
Toilet lid							
Flush handle							
Health faucet/Mug							
Toilet Floor							
Toilet Walls							
Tap knobs							
Toilet door knobs							
Bathroom sink							
Bed pans							
Light /switches							
Nurses' Station							
Corridor Walls/							

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Corridor Floor							
Staircase							
Stair case Railings							
Lifts (if in use)							
High touch room surfaces							
IV Pump Control Surfaces							
Multi module monitor touch controls							
Multi module monitor cables							
Ventilator control panels							
Spills (if any)							
Others(specify)							
Others(specify)							

Directly observed: Yes/No

Figure of eight cleaning followed: yes/no

Signature of staff nurse:

Signature of sanitary inspector:

Member, University Environment Department,

Member, Sanitisation Committee, COVID-19