



Health & Family Welfare Department, Government of Tamil Nadu

TNSOP – 5

GUIDELINES FOR INFECTION PREVENTION CONTROL (IPC) FOR SUSPECTED CASES OF COVID19

- Clinical triage includes early recognition and immediate placement of patients in separate area from other patients (source control).
- Triage Station should Offer mask, follow hand hygiene and respiratory etiquettes.
- Minimize the waiting time at triage station.
- A self-declaration form should be filled up for all suspected cases reporting to the hospital. All individuals, including family members, visitors and health care workers (HCWs) should apply standard, contact and droplet precautions.
- Place patients in adequately ventilated single rooms.
- When single rooms are not available, cohort patients suspected of SARS CoV2 acute respiratory disease together with minimum distance between two patients to be 1 meter.

IPC strategies to prevent or limit infection transmission in health-care settings include the following:

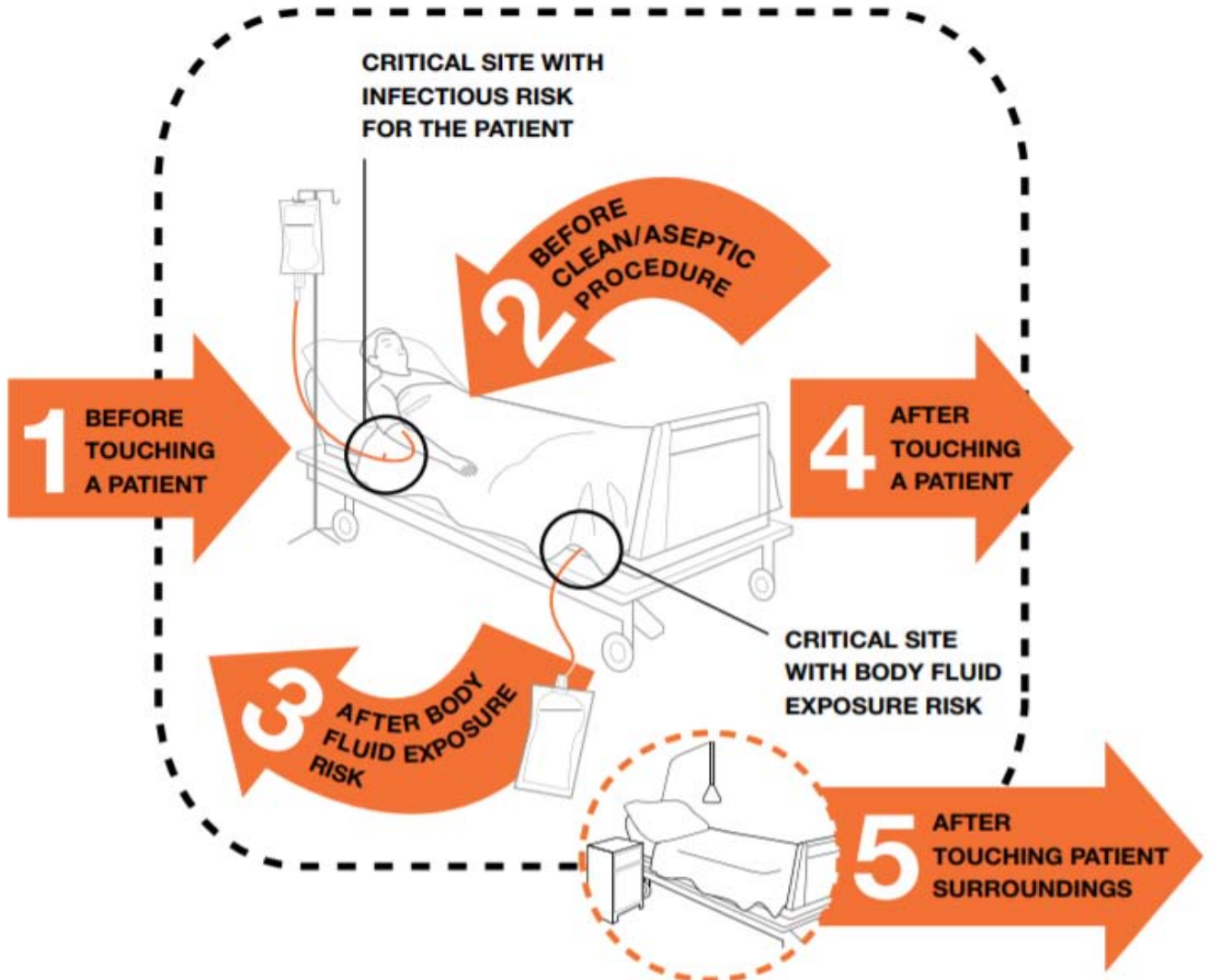
- 5.A. Hand hygiene
- 5.B. Respiratory hygiene
- 5.C. Personal protective equipment (PPE)
- 5.D. Bio Medical waste management
- 5.E. Laundry management
- 5.F. Sample collection, storage and transportation (Refer to TNSOP 2)
- 5.G. Monitor health of HCWs providing care to cases of SARS CoV2 Acute Respiratory Disease (Refer to FORM 6)
- 5.H. Guidelines for Pre- Hospital Care
- 5.I. Hospital Disinfection (Environmental)
- 5.J. Disinfection Procedure for prevention of COVID -19 in public places

5.A Hand Hygiene

Moments of Hand Hygiene


WHEN?

YOUR 5 MOMENTS
FOR **HAND HYGIENE***



HOW TO HANDWASH?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

 **Duration of the entire procedure: 40-60 seconds**



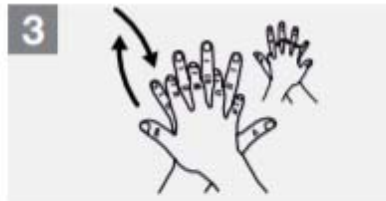
Wet hands with water;



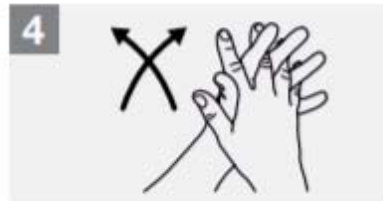
Apply enough soap to cover all hand surfaces;



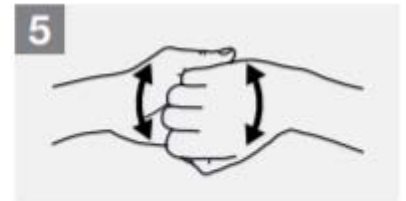
Rub hands palm to palm;



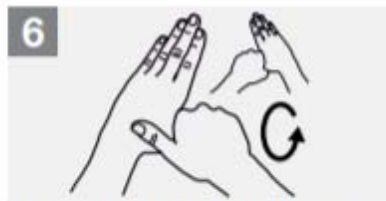
Right palm over left dorsum with interlaced fingers and vice versa;



Palm to palm with fingers interlaced;



Backs of fingers to opposing palms with fingers interlocked;



Rotational rubbing of left thumb clasped in right palm and vice versa;



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



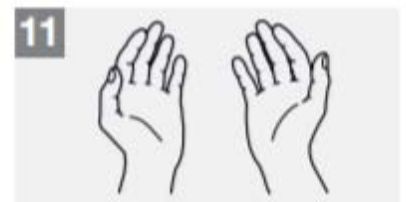
Rinse hands with water;



Dry hands thoroughly with a single use towel;



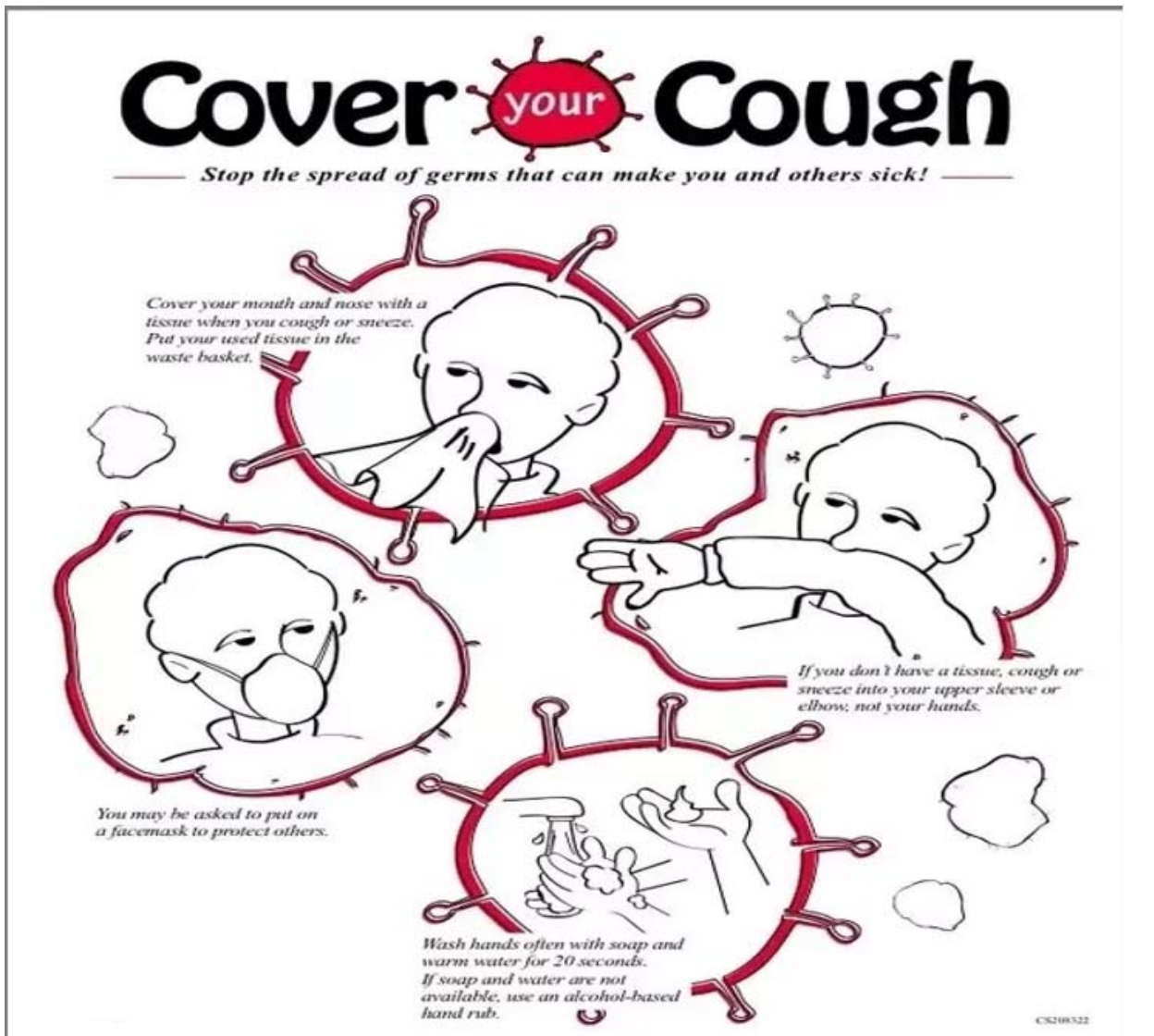
Use towel to turn off faucet;



Your hands are now safe.

5.B Respiratory Hygiene

- Offer a medical/surgical mask for suspected SARSCoV2 acute respiratory disease case for those who can tolerate it.
- Cover nose and mouth during coughing or sneezing with tissue or flexed elbow for others.
- Perform hand hygiene after contact with respiratory secretions.



5.C Personal Protective Equipment (PPE)

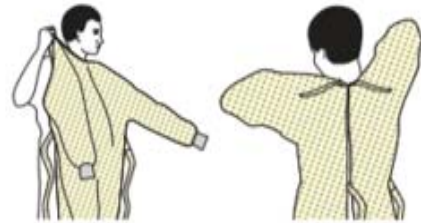
- PPE includes shoe cover, gown, mask, eye protection & gloves.
- Shoe cover should always be worn before entering the patient care area (Isolation ward etc.).
- If gowns are not fluid resistant, use a waterproof apron for procedures with expected high fluid volumes that might penetrate the gown.

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten in back of neck and waist



2. MASK OR RESPIRATOR

- Secure 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

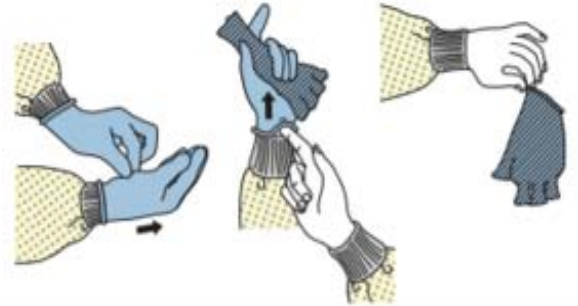
- Keep hands away from face
- Limit surfaces touched
- Change gloves when torn or heavily contaminated
- Perform hand hygiene

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

- Outside of gloves are 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 off first glove
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first 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 goggle 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

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

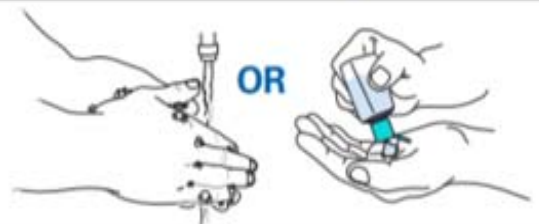


4. MASK OR RESPIRATOR

- 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



HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE)

EXAMPLE 2

Here is another way to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. **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. GOWN AND GLOVES

- Gown front and sleeves and the outside of gloves are contaminated!
- If your hands get contaminated during gown or glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp the gown in the front and pull away from your body so that the ties break, touching outside of gown only with gloved hands
- While removing the gown, fold or roll the gown inside-out into a bundle
- As you are removing the gown, peel off your gloves at the same time, only touching the inside of the gloves and gown with your bare hands. Place the gown and gloves into a waste container



2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle 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 and without touching the front of the goggles or face shield
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container

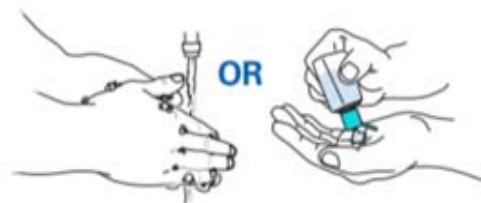


3. MASK OR RESPIRATOR

- 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







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



5. D Bio Medical Waste Management from suspected case of COVID-19

- Bio medical waste generated must be segregated at source and discarded as per biomedical waste management Rules 2016 (amendment 2018,2019)

Bio-Medical Waste Management Rules			
Biomedical wastes categories and their segregation, collection, treatment, processing and disposal options			
Category	Type of Waste	Type of Bag or Container to be used	Treatment and Disposal options
Yellow 	a) Human Anatomical Waste b) Animal Anatomical Waste c) Soiled Waste d) Expired or Discarded Medicines e) Chemical Waste f) Discarded linen, mattresses, beddings contaminated with blood or body fluid, routine mask and gown	Yellow coloured non-chlorinated plastic bags or containers	Incineration or Plasma Pyrolysis or deep burial* The discarded medicines shall be either sent back to manufacturer or disposed by incineration
	g) Micro, Bio-t and other clinical lab waste	Autoclave safe plastic bags or containers	
	h) Chemical liquid Waste	Separate collection system leading to effluent treatment system	After resource recovery, the chemical liquid waste shall be pre-treated before mixing with other wastewater
Red 	Contaminated Waste (Recyclable)	Red coloured nonchlorinated plastic bags or containers	Autoclaving or micro-waving/ hydroclaving followed by shredding or mutilation or combination of sterilization and shredding. Treated waste to be sent to recyclers. Plastic waste should not be sent to landfill sites.
White (Translucent) 	Waste sharps including Metals	Puncture proof, Leak proof, tamper proof containers	Autoclaving or Dry Heat Sterilization followed by shredding or mutilation or encapsulation in metal container or cement concret
Blue 	Glassware and Metallic Body Implants	Puncture proof and leak proof boxes or containers with blue coloured marking	Disinfection or through autoclaving or microwaving or hydroclaving and then sent for recycling
Source: Bio-Medical Waste Management Rules, 2016 and amended rules 2018			

5.E LAUNDRY MANAGEMENT

- All soiled clothing bedding and linen should be gathered without creating much motion / fluffing.
- Do not shake sheets when removing them from the bed.
- Always perform hand hygiene after handling soiled laundry items.

Laundry should be disinfected in freshly prepared 1% bleach and then transported to laundry in tightly sealed and labelled plastic bag

5. H Guidelines for Pre- Hospital Care

If there are any SUSPECT CASE for COVID-19 identified, the following measures to be taken.

- All hospitals should call 108 and inform about the case details.

Guidelines for Ambulance Transfer

When a suspect case of COVID-19 Acute Respiratory Disease patient must be transported, the following precautions should be taken by ambulance personnel accompanying the patient:

On arrival to the healthcare facility/house from where the patient is to be transferred,

- Decontaminate hands (with alcohol gel/rub)
- Don Personal Protective Equipment (PPE) (N95 mask with respirator, gloves, long sleeved fluid repellent gown and goggles)
- Inform the hospital of the admission/transfer of a potentially infectious person

Before leaving the house/healthcare facility,

- Request patient to wear a surgical mask (if tolerated) and advise on Respiratory Hygiene and Cough Etiquette
- A patient with suspected or confirmed COVID-19 Acute Respiratory Disease should not travel with other patients

In ambulance,

- Remove gloves, decontaminate hands and put on new gloves before touching the patient and before a clean or aseptic procedure, if required. Wearing gloves does not replace hand hygiene.
- Use single patient use medical equipment where possible.

Arrival to the referral hospital,

- Before the patient leaves the ambulance ensure arrangements are in place for receipt of the patient
- Transfer patient to the care of hospital staff at designated COVID-19 OPD/OPD in the institution
- After transfer of patient remove PPE.
- Perform hand hygiene

Before ambulance is used again,

- Cleaning and disinfection

(PPE as outlined above should be worn while cleaning)

Surfaces (stretcher, chair, door handles etc) should be cleaned with a freshly prepared 1% hypochlorite solution or equivalent

- **Laundry:**

Place reusable blankets in a bag, then put into a laundry bag and send for laundering clearly labelling it so that person in the laundry wears appropriate PPE before handling or autoclaves it before opening.

- **Medical equipment:**

Follow manufacturer's instructions for cleaning/disinfecting reusable equipment

- **Management of waste:**

- All masks, gowns, gloves, head and foot covers and any waste contaminated with blood or body fluid (including respiratory secretions) should be disposed of as infectious waste **in yellow bag**.
- Sharp waste to be discarded in white translucent **puncture, leak,tamper -proof** container.
- Blood and body fluids – to be cleaned with a freshly prepared 1% hypochlorite solution or equivalent

In the ambulance, if the driver's chamber is not separate, driver should also use PPE.

5. I. Hospital Disinfection (Environmental)

- Environmental surfaces or objects contaminated with blood, other body fluids, secretions or excretions should be cleaned and disinfected using standard hospital detergents/disinfectants e.g. freshly prepared 1% Sodium Hypochlorite or 5% Lysol. Spray the surface with 0.5% to 1% solution of Sodium Hypochlorite.
- The contact period of the chemical with the surface should be minimum of 30 Minutes. Disinfect all external surfaces of specimen containers thoroughly (using an effective disinfectant) prior to transport. E.g. Sodium hypochlorite at 1%, 500 ppm available chlorine (i.e. 1:100 dilution of household bleach at initial concentration of 5%) or 5% Lysol
- Wear gloves, gown, mask and closed shoes (e.g. boots) when cleaning the environment and handling infectious waste.
- Cleaning heavily soiled surfaces (e.g. soiled with vomit or blood) increases the risk of splashes. On these occasions, facial protection should be worn in addition to gloves, gown and closed, resistant shoes.
- Wear gloves, gown, closed shoes and goggles/facial protection, when handling liquid infectious waste (e.g. any secretion or excretion with visible blood even if it originated from a normally sterile body cavity).
- Avoid splashing when disposing liquid infectious waste.
- Clean and disinfect mattress impermeable covers.
- Non-critical instruments /equipment (that are those in contact with intact skin and no contact with mucous membrane) require only intermediate or low level disinfection before and after use.

Intermediate Level disinfectant: Alcohols, chlorine compounds, hydrogen Peroxide, chlorhexidine,

Low level disinfectants: Benzalkonium chloride, some soaps

Liquid spill management:

- Promptly clean and decontaminate spills of blood and other potentially infectious materials.

- Wear protective gloves.
- Using a pair of forceps and gloves, carefully retrieve broken glass and sharps if any, and use a large amount of folded absorbent paper to collect small glass splinters. Place the broken items into the puncture proof sharps container.
- Cover spills of infected or potentially infected material on the floor with paper towel/ blotting paper/newspaper. Pour 0.5% freshly prepared sodium hypochlorite.
- Leave for 30 minutes for contact
- Place all soiled absorbent material and contaminated swabs into a designated waste container.
- Then clean the area with gauze or mop with water and detergent with gloved hands

5.J. Disinfection Procedure for prevention of COVID -19 in public places

Corona virus from person to person directly through respiratory droplets produced when a infected person coughs or sneezes. People also become infected by touching surfaces contaminated with corona viruses by droplets generated while coughing or sneezing and then touching their mouth or nose or eyes.

Respiratory Hygiene, Hand hygiene and cleaning and disinfection of surfaces frequently touched by hands are essential strategies for the prevention and transmission of COVID-19.

Disinfection of floors and surfaces frequently touched by hands such as seats, hand rails, straps in trains and buses, door handles, lifts, hand rails, chairs, tables, ticket counters, in the shopping malls, , hotels, cinema theatres, marriage halls, seats in trains and buses will certainly help in interruption of transmission to a larger extent.

a. Disinfections for surfaces frequently touched by hands :

- Disinfection of seats, chairs, door handles, and hand railings in cinema theatres should be cleaned with Lysol spray every show.
- In buses and trains, the door handles, straps, hand rails and seats should be cleaned with Lysol periodically after every trip.
- In hotels, lodging houses and marriage halls, Lysol should be sprayed on the surfaces frequently touched by hands should be done periodically, as many times as possible.

Lysol spray for disinfection :

Lysol IP (50% Cresol and 50%Liuid soap)

- Bus stands, railway stations, buses, trains, vehicles, malls, cinema theatres, marriage halls, etc..
 - 2.5% Lysol(1 litre Lysol in 19 litres of water).
- Hospitals, clinics, and ambulances
 - 5% Lysol (1 litre of Lysol in 9 litres of water).

As per the concentration of Lysol in the market, required concentrations can be prepared.

b. Disinfections for floors/ambulances :

- 1% Hypochlorite solution should be used for cleaning the floors.

Sprayers :

Different kinds of sprayers including power sprayers and water wash pumps can be used for spraying and cleaning can be done by wet mopping.

Technical guidance and support :

Deputy Directors of Health Services/City Health Officers of the concerned districts may be contacted for technical guidance and support.

24*7 Control Room for information in COVID - 19

044-29510400	9444340496
044-29510500	8754448477