

Guidelines for Infection Prevention and Control (IPC) practices in public and private hospitals

Scope of this document:

The document is intended for implementation of infection prevention and control (IPC) practices in both public and private hospitals.

Objectives:

Protection of health care workers, protection of patients and protection of community from COVID-19 infection

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

1. Standard precautions
 - a. Hand Hygiene
 - b. Respiratory Hygiene
 - c. Rational use of shoe cover, gown, mask, eye protection & gloves.
2. General precautions:
3. Bio Medical Waste Management
4. Laundry management
5. Monitor health of HCWs providing care to cases of ILI/Severe Acute Respiratory Infection (SARI)
6. Hospital Disinfection (Environmental)

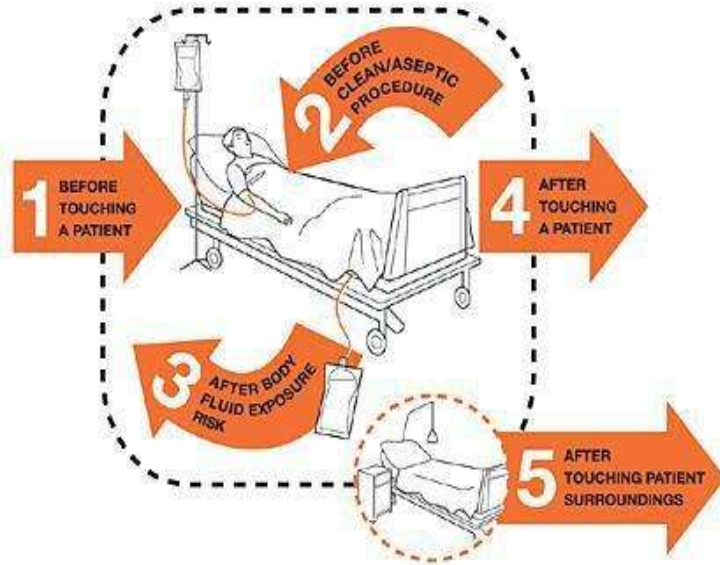
Note:-

1. *All health care workers must know the mode & route of transmission of COVID-19 disease. They must be able to identify common symptoms of this disease and promptly segregate such patients.*
2. *All suspected / confirm cases of COVID-19 must be amply explained and emphasized importance of social distancing, respiratory & hand hygiene, Quarantine & Isolation at every opportunity.*

1. Standard precautions

a. Hand Hygiene

Moments of Hand Hygiene



Steps of Hand Hygiene

Hand-washing technique with soap and water



b. Respiratory Hygiene

- Offer a medical/surgical mask for suspected 2019-nCoV acute respiratory disease case for those who can tolerate it. Others can use homemade triple layer cloth mask.
- Cover nose and mouth during coughing or sneezing with tissue or flexed elbow for others.
- Perform hand hygiene after contact with respiratory secretions.
- Used tissue paper & mask to be discarded in close bins and homemade mask to be washed with soap and warm water after use.

c. Rational use of shoe cover, gown, mask, eye protection & gloves (see attached table).

- 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.
- Keep hands away from face, limit surfaces touched
- Donning & Doffing procedures should be diligently & carefully followed

2. General precautions:

- Clinical triage of patients with influenza like illness (ILI) includes early recognition and immediate placement of patients in separate area from other patients (source control).
- Triage Station - 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 HCWs should follow respiratory and hand hygiene.
- Ensure availability of handwashing and clean toilet for patients and visitors
- In between examining patients strict hand hygiene to be followed by sanitizer/handrub or hand washing with soap and water.
- Place suspected patients with symptoms in adequately ventilated designated rooms to isolate them. When single rooms are not available, cohort suspected patients together with minimum distance between two beds to be one meter.
- Designated staff only should cater to these patients

- Maintain a record of all persons entering the patient’s room including all staff and visitors.
- **Aerosol generating procedures** have been associated with increased risk of transmission of coronaviruses such as tracheal intubation, non-invasive ventilation, tracheotomy, cardiopulmonary resuscitation, manual ventilation before intubation and bronchoscopy. Ensure that HCWs performing aerosol-generating procedures use PPE with particulate respirator at least as protective as a N95.
- Avoid the movement and transport of patients out of the room or area unless medically necessary.
- Use designated portable X-ray equipment and/or other important diagnostic equipment.
- Dialysis and ventilator units should follow standard infection prevention and control protocols. Disposable accessories should be disposed off after single use and reusable should be disinfected by standard procedures.

1. Out Patient Department (Respiratory Clinic / Separate screening area)*

S. No	Setting	Activity	Risk	Recommended PPE	Remarks
1	Triage area	Segregate patients with ILI symptoms and follow below guidelines	Moderate risk	N 95 mask Gloves	Patients to wear masks. Patients with SARI to be informed to IDSP unit and referred to designated unit/hospital for further management
2	Screening area / help desk / registration counter	Provide information to patients	Moderate risk	N 95 mask Gloves	
3	Temperature recording station	Record temperature with handheld thermal recorder	Moderate risk	N 95 mask Gloves	
4	Holding area/ waiting area	Nurses /paramedic interacting with patients	Moderate risk	N 95 mask Gloves	Minimum distance of one meter needs to be maintained

5	Doctors chamber	Clinical management (doctors/nurses)	Moderate risk	N 95 mask Gloves	No aerosol generating procedures should be allowed
6	Sanitary staff	Cleaning frequently touched surfaces / floor / cleaning linen	Moderate risk	N-95 mask Gloves	
7	Visitors accompanying young children and elderly	Support in navigating various service areas	Low risk	Triple layer medical mask	No other visitors should be allowed to accompany patients in OPD settings. Visitors thus allowed should practice hand hygiene

* All hospitals should identify a separate triage and holding area for patients with Influenza like illness. If there is no triage area / holding area for patients due to resource constraints, such hospitals will follow the above guidance for general OPD.

2. In-patient Services

S. No.	Setting	Activity	Risk	Recommended PPE	Remarks
1	Individual isolation rooms / cohorted isolation rooms	Clinical management	High risk	PPE Kit	Patient masked. Patients stable. No aerosol generating activity.
2	ICU/ Critical care	Critical care management	High risk	N95 masks PPE Kit Full complement of PPE in case of SARI	Aerosol generating activities performed.
3	ICU /critical care	Dead body Packing and transport to mortuary	High risk	Full complement of PPE	
4	Sanitation	Cleaning frequently touched surfaces/ floor/ changing linen	Moderate risk	N-95 mask PPE Kit	
5	Other Non-COVID treatment	Attending to infectious and non-infectious patients	Risk as per assessed	As per hospital infection prevention and control practices	No possibility of exposure to COVID patients. They should not

	areas of hospital		profile of patients		venture into COVID-19
7	Caretaker accompanying the admitted patient	Taking care of the admitted patient	Low risk	Triple layer medical mask	The caretaker thus allowed should practice hand hygiene, maintain distance of 1 meter

3. Emergency Department

S.No	Setting	Activity	Risk	Recommended PPE	Remarks
1	Emergency	Attending emergency cases	Moderate risk	N 95 mask Gloves	When aerosol generating procedures are anticipated
		Attending to severely ill patients of SARI	High risk	Full complement of PPE	Aerosol generating activities performed.

3. Bio Medical Waste Management

Waste Management (As per recent guidelines of Central pollution control board)

- The surface or material known to be, or potentially be, contaminated by biological agents during laboratory operations must be correctly disinfected to control infectious risks.
- Proper processes for the identification and segregation of contaminated materials must be adopted before decontamination and/or disposal. The contaminated waste must be packaged in a leak proof manner, for transfer to decontamination capacity.
- As precaution double layered bags (using 2 bags) should be used for collection of waste from COVID-19 isolation wards so as to ensure adequate strength and no-leaks;

Category	Type of Bag/container	Type of waste	Treatment disposal options
Yellow	Non chlorinated color coded bags in colored bins	Human anatomical waste, Soiled waste, Expired or discarded medicines, Chemical waste and clinical lab waste.	Incineration / Deep burial

Red	Non chlorinated plastic bags in colored bins/containers	Contaminated plastic waste like tubing, bottles, urine bags, syringes (without needles) and gloves	Autoclave
White	Translucent, puncture, leak and tamper proof	Waste sharps including metals	Autoclave
Blue	Waterproof cardboard boxes / containers	Glassware waste	Autoclave

4. 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% bleaching solution and then transported to laundry in tightly sealed and labeled plastic bag.

5. Monitor health of HCWs providing care to cases of ILI/Severe Acute Respiratory Infection (SARI)

HCWs and housekeeping staff providing care to cases of COVID-19 cases shall be monitored daily for development of any symptoms as per the suspect case definition including charting of their temperature twice daily for 14 days after last exposure. If they develop any symptoms then standard protocol laid down for management of suspect case of COVID-19 shall be followed including RT-PCR testing.

6. Hospital disinfection (Environmental)

General instructions: Use appropriate protective gear while carrying out cleaning and disinfection works

- Wear heavy duty/disposable gloves, disposable long-sleeved gowns, eye goggles or a face shield, and a medical mask
- Avoid touching the nose and mouth
- Disposable gloves should be removed and discarded if they become soiled or damaged, and wear a new pair

- All other disposable protective gear should be removed and discarded after cleaning activities are completed according to the guidelines
- Where possible, seal off areas where the confirmed case has visited, before carrying out cleaning and disinfection

Cleaning and disinfection of different hospital areas

Table 1: Cleaning of triage area / OPD

S.No	Triage Area	Disinfection method	Process and frequency
1	General cleaning of floor	Detergent & water mop followed by 1% hypochlorite solution using triple buckets cleaning	Mop floors with water and detergent (Do not pour the water.) Note: Should be done every 4-6 hourly (or depending on the load)
2	Table, lockers, cupboard, benches, barrier railings, chair	Damp dusting followed by wiping with H ₂ O ₂ / 70% alcohol-based preparation	Damp mopping with water and detergent, followed by disinfection with hydrogen peroxide disinfectant wipes Remove any marks under arms and seat. Note: Should be done every 6 hourly
3	Telephone/ CUG	Alcohol based Rub	Wipe with Alcohol based rub wipes. Note: Should be done every 4 hourly
4	Light switch	Damp dusting followed by H ₂ O ₂ disinfectant / 70% alcohol-based preparation	Light switches to be cleaned of dust, spots and finger marks. Clean with a damp cloth (never wet) and detergent. Wipe with Hydrogen peroxide disinfectant wipes Note: Should be done every 6 hourly
5.	Stethoscope BP cuff	Alcohol based Rub	Wipe with Alcohol based wipes. Note: Should be done after every use.

Table 2: Cleaning of ward

S NO.	Area	Disinfection Method	Process and frequency
1	Floor	Damp mopping followed by mopping with 1% hypochlorite solution	<p>Sweep with the damp mop to remove surface dust. 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 detergent solution</p> <ul style="list-style-type: none"> • First mop the area with the water and detergent solution. • After mopping clean the mop in plain water and squeeze it. • Mop area again using 1% hypochlorite solution 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 the door. <p>Clean articles between cleaning. Note: Mopping should be done 6-8 hours</p>
2	Ceilings and side walls	Damp mopping followed by mopping with 1% hypochlorite solution	<p>Damp dusting with a long Handled tool for the walls and ceiling done with very little moisture.</p> <p>Damp dusting should be done in straight lines that overlap one another using 1% hypochlorite solution. Note: Should be done once every 8 hours</p>
3	Table, Lockers, cupboard, benches, Barrier railings, Chair, refrigerator	Damp dusting followed by disinfectant with 70% alcohol-based preparation.	<p>Damp mopping with Warm water and detergent, followed by disinfection</p> <p>Remove any marks under arms and seat. Note: Should be done every 8 hourly.</p>

4	Ventilator (exterior), Infusion pump, USG machine, Telephone computer, keyboard, printer, Bed side monitor, ECG probes	70% alcohol-based preparation	Wipe with 70% alcohol-based preparation on frequent basis
6	Light switch	Damp dusting followed by disinfectant.	Light switches to be cleaned of dust, spots and finger marks. Clean with a damp cloth (never wet) and detergent. Note: Should be done every 4-6 hourly
7	Doors and door knobs external surface of water cooler, AC, Fridge & Air Cooler	Damp dusting followed by disinfectant with 70% alcohol-based preparation or 1% hypochlorite solution.	Damp mopping with Warm water and detergent, followed by disinfection: Door knobs and other frequently touched surfaces should be cleaned 6 hourly followed by disinfection
8	Stethoscope, Pulse oximeter	Alcohol based Rub	Wipe with Alcohol based rub Note: Should be done after every use.
9	Thermometer	Alcohol based hand rubs	Wipe with Alcohol based rubs / wipes • Store in individual holder inverted • Preferably one thermometer for each patient if Infrared thermometer is not available.
10	Injection and dressing trolley	Detergent and water mopping followed by Alcohol based hand rubs	Damp mopping with Warm water and detergent, followed by disinfection Alcohol wipes Note: Should be done every 8 hourly.
11	Refrigerator in patient room	Detergent and water absorbent paper	Empty the fridge and store things appropriately. Defrost, Clean with detergent. Dry it properly Note: Weekly or patient is discharged

12	Window or Split AC (indoor unit)	Detergent and water. 1% hypochlorite solution.	Clean filter frequently with detergent, water & 1% hypochlorite solution.
13	Room Cooler	Change water 12 hourly and treat with 1% hypochlorite solution.	Damp dusting and tank cleaning.
14	Lift	Surface & switches cleaning by 1% hypochlorite solution or 70% alcohol based preparation.	8 hourly or more often if used frequently
15	Stretcher, trolley, Wheel Chair & benches	Surface & switches cleaning by 1% hypochlorite solution or 70% alcohol based preparation.	6 hourly & after every use by COVID-19 patient or after any suspected contamination
16	Ambulance	Surface cleaning by 1% hypochlorite solution or 70% alcohol based preparation.	After every use by COVID-19 or SARI patient.

Table 3: Cleaning of toilet

S. No.	Ward	Disinfection method	Process and frequency
1	Showers area Taps and fittings	Warm water Detergent powder Nylon Scrubber	Thoroughly scrub the floors / tiles with warm water and detergent. <ul style="list-style-type: none"> Wipe over taps and fittings with a damp cloth, detergent and dried after cleaning Care should be taken to clean the underside of taps and fittings.
2	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
3	Toilet floor	Soap powder and scrubbing brush/ nylon broom	Scrub floor with soap powder and the scrubbing brush <ul style="list-style-type: none"> Wash with water Use sodium hypochlorite 1% dilution

Table 4: Protocol for spill management

Sl. No	Spill management	Disinfection method	Process and frequency
1	All patient care areas/ Laboratory	Spill care kit - Sodium hypochlorite (1%), Absorbent paper Gloves Forceps Yellow bag Mop and Hot water	<ol style="list-style-type: none"> Wear full PPE Remove if any broken pieces of glass and sharps, using a pair of forceps. Pour sodium hypochlorite (1%) and cover with absorbent paper. Wait for 20 minutes. Cover the spill with absorbent paper Clean up and discard absorbent paper into yellow infectious waste bin. Mop the area with detergent and hot water.