

General Infection prevention and control (IPC) Guidelines

1. Prevent overcrowding in the hospital
2. Restrict entry to visitors to minimum possible.
3. Ensure adequate ventilation in patient care areas
 4. HCW to adhere to infection control practices: Perform Frequent Hand Hygiene(hand wash with soap and water/Hand hygiene with ABHR, ensuring 70% alcohol)
 - b. Wear mask.
 - c. While in use, avoid touching mask
 - d. Do not reuse the mask/hang around the neck/repeatedly wear and remove the mask- these practices are unwarranted
 - e. Avoid touching face, nose and eyes
 - f. Ensure social distancing, at least 1 meter distance from others
 - g. Follow safe injection practices.
 5. Patient care areas:

Maintain at least 1 meter distance between patients, and between patient beds in the wards.


Patients must wear a mask & observe cough/sneezing etiquettes (Posters displayed) Patients requested to avoid touching surfaces, walls, doors etc.

Spitting in hospital premises prohibited

6. Wet dusting of frequently touched surfaces with detergent and water followed by 1% Sod Hypochlorite solution, and for metallic surfaces 70% alcohol instead of 1% Sod Hypochlorite solution is used (3-4 times a day)
7. Wet mopping of floors with detergent and water, followed by 1% sod. Hypochlorite, at least twice a day.
8. Bio medical Waste to be handled as per BMW rules 2016 & amendment 2018 with some additional precautions (BMW SOP).
9. Always try to participate in the infection control trainings conducted by HICC time to time.

Lift Use & Infection Prevention SOP

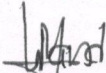
1. Avoid use of lift, if feasible . Stand in a que, maintaining at least 1 meter distance from others while waiting for your turn.(follow the instructions displayed in front of lift)
2. 2-3 people per lift at one time, keeping a least 1meter distance from each other.
3. Hand rub before and after lift use
4. Do not touch walls/surfaces inside lift
5. Stand facing to wall.(as shown in circles made on the floor)
6. Avoid talking inside lift
7. Follow cough/sneezing etiquettes: cough or sneeze into a tissue/elbow. Never cough or sneeze in hands
8. Ensure wearing mask(all patients, attendants and HCWs).
9. Clean the high touch surfaces such as lift buttons, adjacent wall area and door every hour with 1% hypochlorite solution/ 70% alcohol (2-3hrly)
10. Clean other areas of lift 2-3 times a day.


Principal cum Chairman,
HICC, IGMC, Shimla

General IPC Precautions for Healthcare workers

1. Use dedicated clothes for work at hospital, if possible.
 2. Stop wearing watches, rings, bangles, bracelets etc.
 3. Stop bringing laptops, bags, wallets to hospital
 4. Just bring credit cards, a little cash, can leave your driver's license in the car
 5. Clean and disinfect your glasses, keys, pens, mobile phones and other things which are carried to the hospital on arriving and before you leave for home, and also when you reach home.
 6. Wash your hands properly before leaving hospital and also when you reach home.
 7. Wear only surgical mask in the hospital in non-COVID areas & which does not involve contact with COVID-19 patient/suspect (where proper PPE is needed).
 8. Frequent hand hygiene in hospital is most important.
 9. Do not touch your mouth, nose with hands.
 10. Doors may be opened with elbow/foot/ non dominant hand.
 11. Adhere to respiratory hygiene/etiquettes
 12. Disinfect door handles of car/handles of two wheelers before touching them.(likely to be touched by many people in the parking)
 13. When you reach home, better to leave your coat, bag (if any) and mobile covers in the car.
 14. Ask someone at home to open the door for you(if feasible)
 15. Leave work shoes outside house (in a rack outside house, if possible) or mark a proper separate place inside house.
 16. Avoid touching surfaces like doors, walls, table chairs etc at house when you reach. Move straight to take a shower.
 17. Dip your clothes immediately in detergent and warm water, and do not mix with other clothes. Preferably wash them yourself.
 18. Use a dedicated place/table to keep your mobiles/tablet/laptop. Do not carry them to your beds
 19. Stay away from other family members, preferably separate rooms, especially in the presence of children /elders at home. If not possible keep 1-2 meters distance from others.
 20. Always remember frequent hand hygiene and social distancing, it works both in hospital, public places and at home.
 21. Maintain proper cleanliness and ventilation of the house.
- For HCWs giving services in COVID-19 areas, follow specific IPC and quarantine guidelines.

Remember: Everything you touch has been touched by someone else and will be touched by someone else.


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Biomedical Waste (BMW) Management for COVID-19

Waste generated during patient care, diagnosis and treatment of COVID-19 cases and suspects in the hospital would be treated as COVID-19 waste. The areas where such waste shall be generated would be COVID ward, Triage ward, Flu clinic, sample collection centers (respiratory samples for PCR), PCR laboratory, laundry, radiology, other laboratories and autopsy room.

The HCWs need to follow the following steps for safe handling of this waste.

The BMW shall be segregated and handled as per BMW rules 2016 as amended and Central Pollution Control Board(CPCB) guidelines (April ,2020)

Colour coded bags/container	Broad type of waste/items	Method of disposal
Yellow	Infectious non plastic, non-sharp	Incineration
Red	Infectious Plastic, non-sharp	Autoclave/microwave(recycle)
White sharp box	Sharp (metal) waste	Autoclaving,Shredding/ encapsulation/Sharp pit
Blue Box	Glass, metallic implant	Disinfection/autoclaving, (recycle)

The following **additional precautions** shall be taken to handle COVID-19 waste:

- a. Report opening or operation of COVID-19 wards/isolation wards, and COVID-19 sample collection centres & laboratories to SPCB and CBMTF.
- b. Keep separate (foot operated /closed color coded bins, and bags as per rules.
- c. Double layer collection bags (2 bags) should be used to ensure strength and no leakage.
- d. Label the outer bags as COVID-19 Waste.
- e. Tie the bags properly(when 3/4 full), and disinfect the outer surface with 1% hypochlorite (if autoclave facility available, no need for disinfection)
- f. The waste generated from laboratories should be pretreated by autoclave.
- g. Use dedicated trolleys for waste transport to temporary storage area/to CBMWTF van.(label as COVID-19 Waste)
- h. The inner and outer surface of the Bins/containers should be disinfected with 1% hypochlorite solution. General waste in these areas, being contaminated, shall be disposed as solid waste in Black bins lined by yellow double bags. Label the outer bags as COVID-19 Waste. Tie the bags when 3/4 full and disinfect outer surface with 1% hypochlorite sol. Disinfect (inner& outer surface) the bin with 1% hypochlorite sol. General waste not having contamination should be disposed of as solid waste (Black bins) and handled as per solid waste rules eg in nursing stations, duty rooms.
- i. Depute dedicated and trained sanitation workers separately for COVID waste who shall wear appropriate PPE while handling waste.
- j. **PPE:** heavy duty gloves, plastic aprons, N95 mask, eye shield/ goggles, cap.
- k. **Transport to CBMWTF:** Use a dedicated collection bin labelled as COVID-19 for temporary storage at the temporary storage room before handing over to authorized staff of CBWTF or biomedical waste from isolation wards shall be lifted directly into CBWTF collection van (to be coordinated with the sanitary inspector). Ensure that BMW is transported daily.

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- l. **Dedicated vehicle:** The CBMWTF should use a dedicated vehicle for COVID-19 waste, however it needs not to be labeled as COVID-19 waste. The vehicle should be disinfected after each shift(1% hypochlorite or equivalent).
- m. **COVID-19 waste should not get mixed with other BMW at any point.**
- n. Maintain separate record of COVID waste in respective wards, generating COVID -19 waste.
- o. Feces from COVID confirmed who is unable to use toilets and excreta is collected in diapers, must be treated as BMW ad shall be placed in yellow bags/container. if bed pan is used, feces to be washed in toilet and pan washed with detergent and water followed by disinfection with 1% hypochlorite solution.
- p. **PPE disposal:**
- q. Gloves, plastic aprons, goggles/eye shield- RED bin(red double bag)
- r. Non -plastic items: Gown, Mask(surgical & N 95), cap, shoe covers,- Yellow bins(double bags)
- s. Discarded items as linen, mattresses, beddings contaminated with blood/body fluids- in non-chlorinated yellow plastic bags/suitable packing material.
- t. **Liquid waste:** disinfected with 1% hypochlorite solution(in liquid treatment system, preferably) for 30 minutes and then drained.

Quarantine facility for suspected COVID patients:

- a. General solid waste(not contaminated) should be handed over to waste collector identified by ULBs or as per prevailing method of disposing general solid waste. Contaminated general waste may be treated and handled as BMW.
- b. Biomedical waste shall be collected in double yellow bags and bins (provided by ULBs), labeled as COVID-19 waste and outer surface of bags to be disinfected with 1% hypochlorite solution. The quarantine facility operator should inform the CBMTF to collect the BMW. Inner and outer surface of Bins used for BMW should be disinfected with 1% hypochlorite each time used.
- c. Person handling the COVID waste shall observe all standard precautions and wear appropriate PPE(heavy duty gloves, plastic aprons, N95 mask, eye shield/ goggles, cap).
- d. Biomedical waste during home care of confirmed or suspect COVID case should be treated as infectious waste(hazardous domestic waste) and collected in yellow bags provided by ULBs and handed over to authorized waste collectors.

Spill Management:

Any spillage of Blood/body fluids in COVID confirmed/suspect wards/areas shall be handled as :

- a. Attend immediately, mark the spill area and put wet floor signage
- b. Wear appropriate PPE(heavy duty gloves, plastic aprons, N95 mask, eye shield/ goggles, cap).
- c. Pick up any broken glass with the help of tongs, and put into the blue container
- d. Place a paper towel/any absorbent material on it
- e. Pour 1% sodium hypochlorite solution on it(from periphery to center, just saturate the towel
- f. Leave it for 30 minutes contact time.
- g. Wipe the area with paper towel and put it in the yellow bag/container
- h. All the waste would be treated and handled as COVID-19 waste
- i. Clean it now with detergent and water, let it dry
- j. Remove the PPE carefully and dispose properly(sops)
- k. Clean and disinfect all the reusable items(buckets, tongs)

The HODs/ facility/ward in charges or in charges of outsource staff may ensure that all HCWs are adequately trained in infection control practices by HICC team. They may also ensure that the HCWs attend the regular orientation classes conducted in small groups by HICC team time to time (schedule shall be communicated to respective departments)

Hand hygiene and social distancing shall be observed by all, all the time and at all places.

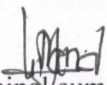
Note:

Correct Technique of Donning and Doffing of PPE is most important to prevent HAIs
Judicious and appropriate use of PPE requested.

The Basic Principles of IPC and Standard precautions should be applied in all health care facilities.

This is a Dynamic document and shall be updated time to time as the knowledge with COVID-19 evolve with time and with new national and international guidelines

Resources: Biomedical waste management rules, 2016, amendment 2018, Govt. of India
CPCB,(April 2020) govt. of India

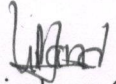

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COVID-19: Infection prevention and control (IPC) SOP on dead body management

Standard Infection prevention and control practices should be followed by HCW while handling dead bodies of COVID-19 patient/suspect (Hand hygiene, appropriate PPE, safe handling of sharps, disinfect bag housing dead body, disinfect instruments, linen and environmental surfaces)

1. All staff involved to handle dead bodies in isolation/mortuary/ambulance should be trained in IPC practices
2. HCWs attending dead body perform shall wear full PPE (gloves, gown/plastic apron, eye shield/ goggles, N95 mask, cap, shoe covers)
3. All tubes/drains/catheters on dead body should be removed.
4. Any puncture/ wound disinfect with 1% hypochlorite solution and dress with impermeable material.
5. Sharps such as IV catheters handled with care and discarded in sharp container.
6. Plug oral and nasal orifices of the dead body to prevent leakage of body fluids.
7. If the family member wants to view the body, may be allowed to do so with wearing Masks, gown, gloves, goggles.
8. Place the dead body in leak proof plastic bag, the exterior of bag disinfected with 1% hypochlorite. Then body bag can be wrapped in mortuary sheet.
9. Transport the body to the dedicated mortuary.
10. The health care worker transporting/carrying body need to wear gloves, surgical mask/N95, plastic apron and follow standard precautions(strict hand hygiene)
11. All used/soiled linen put in double yellow bag and outer surface of bag disinfected and labelled as COVID Linen.
12. Used equipment to be autoclaved.
13. BMW treated as COVID-19 waste handled as per BMW management rules(BMW SOP)
14. Do doffing of PPE with correct technique.(Donning& Doffing sequence charts)
15. Terminal cleaning of the isolation room/area including surfaces, done with thorough cleaning with detergent and water, and 1% hypochlorite solution. Cleaning staff shall wear appropriate PPE(heavy duty gloves, N95 mask, apron, goggles, cap, washable closed shoes/boot)
16. Respect the sentiments of family and advise not to do rituals such as bathing, kissing, hugging of dead body.
17. In mortuary:
 1. Body stored at cold temperature(4°C)
 2. Standard precautions to be followed
 3. Environmental surfaces, trolleys disinfected with 1% hypochlorite solution.
 4. Chamber door, handles and floor should be cleaned with 1% hypochlorite solution after removing the bodyThe HOD/facility in charge may ensure that all HCWs are adequately trained in infection control practices by HICC team. They may also ensure that the HCWs attend the regular orientation classes conducted in small groups by HICC team time to time (schedule shall be communicated to respective departments). Hand hygiene and social distancing shall be observed by all, all the time and at all places.
The Basic Principles of IPC and Standard precautions should be applied in all health care facilities
Judicious and appropriate use of PPE requested.

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Infection prevention and control (IPC) practices with respect to detection of suspect/confirmed COVID-19 case in a health care facility(non-COVID area)

1. All patients shall be treated as suspect until proved otherwise,
2. Institutional policy for screening and triage(questionnaire based & thermal screening) of all patients visiting hospital should be followed strictly.
3. Triage of patients in emergency medicine and general OPDs should also be done.
4. Thermal screening of all HCWs would be mandatory at the entry points daily or at the beginning of the shift.
5. For admitted patients in various wards:
 - a. Daily monitoring and recording of each patient for development of symptoms such as cough, unexplained fever, and breathing difficulty would be carried out and reported to the Principal, IGMC, daily.
 - b. Suspect patient would be tested for COVID-19(PCR), following appropriate sample collection and transportation guidelines (SOPs).
 - c. It should be ensured that the suspect patient wears surgical mask.
 - d. If the patient tests positive inform higher authorities about it.
 - e. The patient should be immediately isolated from other patients and then shifted to COVID ward (following the appropriate guidelines)
 - f. The HCWs transporting the patient shall wear full PPE(glove , gown, N95 mask, cap, eye shield) and follow standard precautions. Ensure that patient/attendant wears triple layer surgical mask.
 - g. Thorough cleaning and disinfection of the facility/ward should be done as per institutional policy.
 - h. All the contacts of this patient (other patients in the facility, HCWs and support staff/ visitors who were in close contact with that patient) should be quarantined and followed for 14 days(as per MoH& FW guidelines)
 - i. All close contacts of the confirmed case (HCWs, support staff) may be given HCQ prophylaxis depending on the institutional policy and national guidelines.
6. For health care workers(HCWs):
 - a. The heads of the departments shall ensure daily monitoring and recording of all HCWs for the development of symptoms such as fever, cough, breathing difficulty. This would be in addition to thermal screening at the entry point being done daily. The daily report shall be submitted to the principal, IGMC.
 - b. All the HCWs should follow standard precautions all the time and additional contact, droplet and airborne precautions depending on risk assessment. Appropriate PPE should be used depending on the risk assessment.
 - c. The HCWs developing such symptoms(mentioned above) shall be considered as suspected case of COVID-19
 - d. HCWs should ensure that mask is put on properly.
 - e. He/she should be isolated and taken off the duty roster
 - f. He should be tested for the COVID-19(PCR) ,following appropriate sample collection and transportation protocol of the institution.
 - g. Listing and tracking of all the HCWs and patients who might have been exposed(close contact with that HCW) to be done ,and should be quarantined and followed up for 14 days as per institutional protocol (& national guidelines). If the test result turns negative, quarantine may not to be continued as per institutional policy.


- h. All the close contacts(HCW and support staff) of the confirmed HCW may be put on HCQ prophylaxis depending on the institutional policy and national guidelines.
7. Restrict the entry of visitors/persons to the wards to minimum possible. Daily record of persons visiting the wards shall be maintained (log book) which might help in contact tracing.
 8. The HODs/ward/facility in charge may ensure that all HCWs are adequately trained in infection control practices by HICC team. They may also ensure that the HCWs attend the regular orientation classes conducted in small groups by HICC team time to time (schedule shall be communicated to respective departments). Hand washing and social distancing shall be observed by all, all the time and everywhere.
 9. The Infection prevention and control practices in the COVID sections (COVID ward, Triage/suspect ward, Flu clinic) shall be followed as per institutional guidelines(specific SOPs for respective areas)
 10. Biomedical waste management shall be as per BMWM rules 2016 as amended with some additional precautions (SOPs)
 11. Environmental cleaning and disinfection shall be as per institutional policy (SOPs)

Note:

- i. Correct Technique of Donning and Doffing of PPE is most important to prevent HAIs
- ii. Judicious and appropriate use of PPE requested.
- iii. The Basic Principles of IPC and Standard precautions should be applied in all health care facilities.
- iv. This is a Dynamic document and shall be updated time to time as the knowledge with COVID-19 evolve with time and with new national and international guidelines.

Resources:

MoH&FW, Emergency medical research, April 2020


Principal cum Chairman,
HICC, IGMC, Shimla