

Guideline for Staff Management and Personal Protection for Medical Professionals from COVID19



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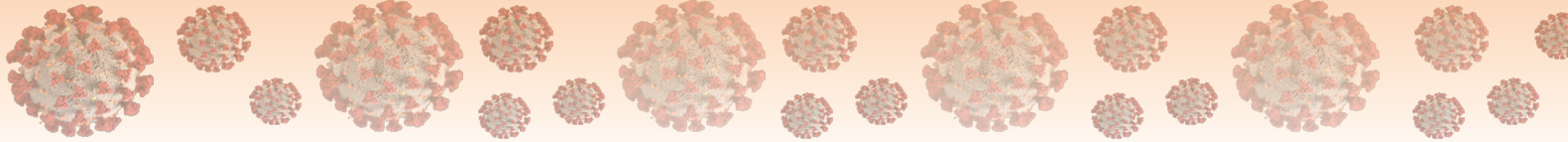




Concerning the global pandemic of COVID19, Dhaka Ahsania Mission Health Sector is urging all its clinical personnel to follow this guideline.

It has been developed in the context of international standards set by WHO. However, the IEDCR (Institute of Epidemiology, Disease Control and Research) guideline and social/ economical and feasibility situation of a limited resource country like Bangladesh have also been considered during its development.

Our sincere gratitude and appreciation for the brave soldiers of the health care system who are the front-line warriors in the battle against COVID19.



Case Definitions

WHO periodically updates the Global Surveillance for human infection with coronavirus disease (COVID19) document which includes case definitions. For easy reference, case definitions are included below.

Suspect Case

A patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease (e.g., cough, shortness of breath) AND with no other etiology that fully explains the clinical presentation AND a history of travel to or residence in a country/area or territory reporting local transmission of COVID19 disease during the 14 days prior to symptom onset.

OR

A patient with any acute respiratory illness AND having been in contact with a confirmed or probable COVID19 case in the last 14 days prior to onset of symptoms.

OR

A patient with severe acute respiratory infection (fever and at least one sign/symptom of respiratory disease (e.g., cough, shortness of breath) AND requiring hospitalization AND with no other etiology that fully explains the clinical presentation.

Probable Case

A suspect case for whom testing for COVID-19 is inconclusive (inconclusive being the result of the test reported by the laboratory).

Confirmed Case

A person with laboratory confirmation of COVID19 infection, irrespective of clinical signs and symptoms.





Patient Management

1. Hospital personnel must isolate any patients coming with the symptoms of COVID19 (high fever, cough, muscle pain, breathlessness) or patients coming with travel or exposure history at entrance of the facility. Staffs should be informed about the Government orders about where to send such patients for proper treatment. Directorate General of Health Services and IEDCR webpage/facebook pages can be helpful for updated Government orders
2. An isolation ward must be prepared for suspected COVID19 cases. Only a selected group will be given the access to it. The medical personnel must keep in mind that any suspected COVID19 case should be transported to Government approved treatment facility as soon as possible

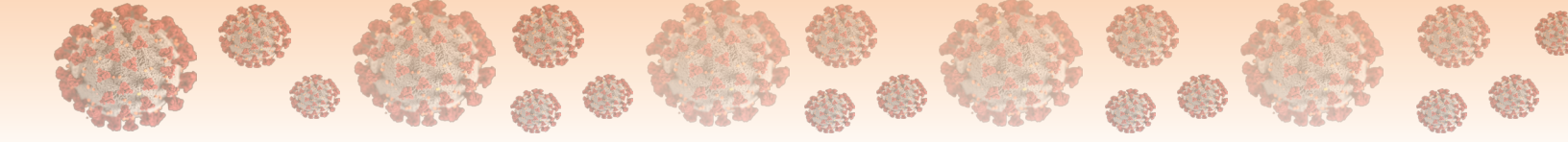
Staff Management

1. The front-line staff in the isolation areas - including healthcare personnel, medical technicians and property and logistics personnel shall live in an isolation accommodation
2. All health personnel are required to take nutritious diet to boost their immunity
3. All health personnel must monitor their health status regularly
4. If any staff having any relevant symptoms such as fever, they shall be isolated immediately

Personal Protection Management

1. The hospital staff that may come with contact with COVID19 suspected cases are asked to wear the following gears for personal protection –

Instruments	When to wear them	When to change/replace
Disposable surgical cap	All the time during duty schedule	After examining any suspected case
Disposable surgical mask	All the time during duty schedule	After examining any suspected case. If no such case is examined, then the mask should be changed every three hours
Medical apron	All the time during duty schedule	After examining any suspected case. If no such case is examined, then the apron should be changed at the end of the day. All personnel are asked to use newly washed apron everyday
Disposable latex gloves	All the time during duty schedule	After examining every patient



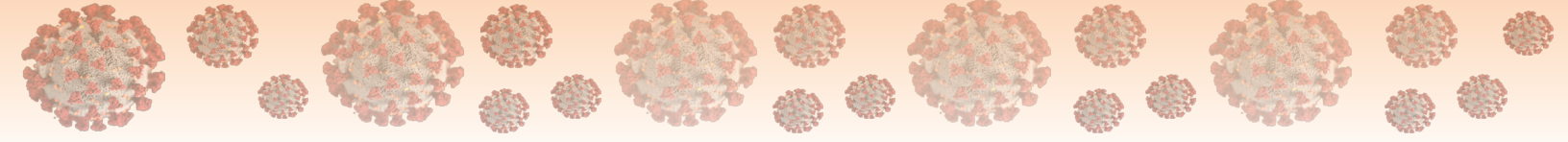
Instruments	When to wear them	When to change/replace
Disposable OT gown	During examination of any suspected case	After examining any suspected case. If disposable gowns are not available, then each gown should be worn once and then it should be discarded to be sterilized
Disposable shoe guard	During examination of any suspected case	After examining any suspected case
Goggles	During examination of any suspected case	After examining any suspected case

2. All health personnel are to follow the instructions given below while getting ready to examine a patient -
 - i. First put on special work apron and work shoes
 - ii. Wash hands (follow the general guideline of ideal hand washing technique - <https://www.youtube.com/watch?v=3PmVJQUCm4E>)
 - iii. Put on disposable surgical cap
 - iv. Put on disposable surgical mask
 - v. Put on disposable latex gloves
 - vi. Put on protective goggles (when necessary)
 - vii. Use hand sanitizer/hexisol between ever step
3. All health personnel are to follow the instructions given below after examining a patient -
 - i. Remove the disposable latex gloves
 - ii. Remove the work apron
 - iii. Remove goggles (when necessary)
 - iv. Remove disposable surgical mask
 - v. Remove cap
 - vi. Use hand sanitizer/hexisol between ever step

Disinfection

1. Disinfection of floors and walls

- i. Visible pollutants must be completely removed before disinfection and handled in accordance with disposal procedures of blood and bodily spills
- ii. Disinfect the floor and walls with ideal disinfectant through floor mopping, spraying or wiping

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- iii. Make sure that disinfection is conducted for at least 30 minutes
 - iv. Carry out disinfection three times a day and repeat the procedure at any time when there is contamination

2. Disinfection of object surface

- i. Visible pollutants must be completely removed before disinfection and handled in accordance with disposal procedures of blood and bodily spills
- ii. Wipe the surfaces of objects with ideal disinfectant; wait for 30 minutes and then rinse with clean water. Perform disinfection procedure three times a day (repeat at any time when contamination is suspected)
- iii. Wipe cleaner regions first, then more contaminated regions: first wipe the object surfaces that are not frequently touched, and then wipe the object surfaces that are frequently touched

3. Air disinfection

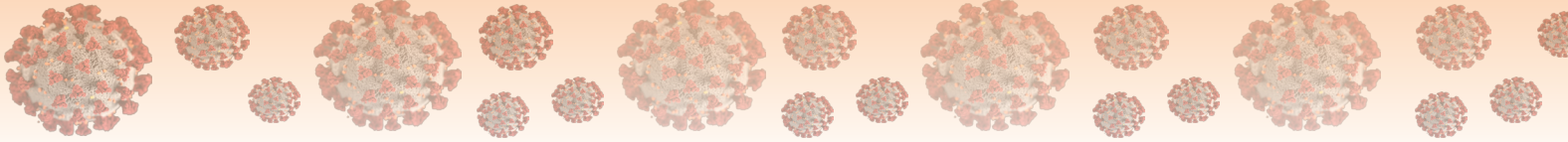
- i. Plasma air sterilizers can be used and continuously run for air disinfection in an environment with human activity
- ii. If there is no plasma air sterilizers, use ultraviolet lamps for 1 hour each time. Perform this operation three times a day

4. Disposal of fecal matters and sewage

- i. Before being discharged into the municipal drainage system, fecal matter and sewage must be disinfected by treating with chlorine-containing disinfectant (for the initial treatment, the active chlorine must be more than 40 mg/L). Make sure the disinfection time is at least 1.5 hours
- ii. The concentration of total residual chlorine in the disinfected sewage should reach 10mg/L

5. Disposal of COVID19 patient blood/fluid (volume <10m)

- i. Option 1: The spills should be covered with chlorine-containing disinfecting wipes (containing 5000 mg/L effective chlorine) and carefully removed, then the surfaces of the object should be wiped twice with chlorine-containing disinfectant(containing 500 mg/L effective chlorine)
- ii. Option 2: Carefully remove the spills with disposable absorbent materials such as gauze, wipes, etc., which have been soaked in 5000 mg/L chlorine-containing disinfecting solution



6. Disposal of COVID19 patient blood/fluid (volume >10ml)

- i. First, place signs to indicate the presence of a spill
- ii. Perform disposal procedures according to procedure described below:

Procedure: Completely cover the spill with disinfectant powder or bleach powder containing water-absorbing ingredients or completely cover it with disposable water-absorbing materials and then pour a sufficient amount of 10,000 mg/L chlorine-containing disinfectant onto the water-absorbing material (or cover with a dry towel which will be subjected to high-level disinfection). Leave for at least 30 minutes before carefully removing the spill

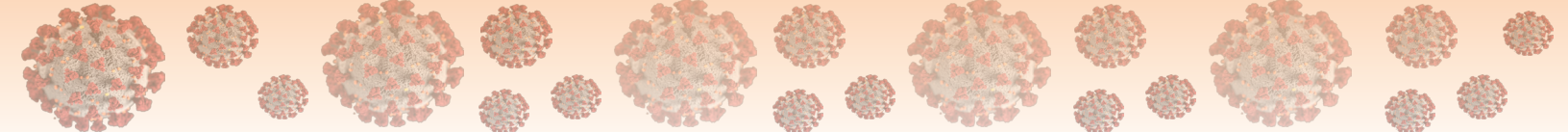
- iii. Fecal matter, secretions, vomit, etc. from patients shall be collected into special containers and disinfected for 2 hours by a 20,000 mg/L chlorine-containing disinfectant at a spill-to-disinfectant ratio of 1:2
- iv. After removing the spills, disinfect the surfaces of the polluted environment or objects
- v. The containers that hold the contaminants can be soaked and disinfected with 5,000mg/L active chlorine-containing disinfectant for 30 minutes and then cleaned
- vi. The collected pollutants should be disposed of as medical waste
- vii. The used items should be put into double-layer medical waste bags and disposed of as medical waste

7. Disinfection of infectious fabrics of suspected/confirmed COVID19 patients

- i. Infectious fabrics contain clothes, bed sheet, bed covers and pillowcases used by patients; ward area bed curtains; and floor towels
- ii. Collection method: First, pack the fabrics into a disposable water-soluble plastic bag and seal the bag with ties. Then, pack this bag into another plastic bag, seal the bag with ties. Finally, pack the plastic bag into a yellow fabric bag and seal the bag with ties. Attach a special infection label and the department name. Send the bag to the laundryroom
- iii. Storage and washing: Infectious fabrics should be separated from other infectious fabrics (non-COVID-19) and washed in a dedicated washing machine. Wash and disinfect these fabrics with chlorine-containing disinfectant at 90 °c for at least 30 minutes

8. Disinfection of transport tools

- i. Special transport tools should be used specifically for transporting infectious fabrics
- ii. The tools shall be disinfected immediately each time after being used for transporting infectious fabrics

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- iii. The transport tools should be wiped with chlorine-containing disinfectant (with 1000mg/L active chlorine). Leave disinfectant for 30 minutes before wiping the tools clean with clean water

9. Disposal of COVID 19 related medical waste

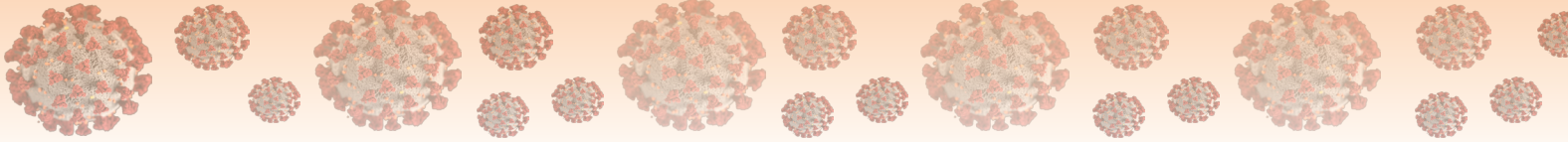
- i. All waste generated from suspected or confirmed patients shall be disposed of as medical waste
- ii. Put the medical waste into a double-layer medical waste bag, seal the bag with ties and spray the bag with 1000 mg/L chlorine containing disinfectant
- iii. Put sharp objects into a special plastic box, seal the box and spray the box with 1000 mg/L chlorine-containing disinfectant
- iv. Put the bagged waste into a medical waste transfer box, attach a special infection label, fully enclose the box and transfer it
- v. The medical waste shall be collected and disposed of by an approved medical waste disposal provider

10. Procedures for taking remedial actions against occupational exposure to COVID19

Occurrence of COVID19 related occupational exposure				
Intact skin exposure	Damaged skin exposure	Exposure of mucous membranes, such as eyes	Sharp object injury	Direct exposure of respiratory tract
Remove the contamination with clean tissues or gauze, then apply 0.5% iodophor or 75% alcohol to the skin and let the solution sit for at least 3 minutes. Thorough wash with running water afterwards		Flush with plenty of normal saline or 0.05% iodophor	Squeeze blood out from proximal end to distal end. Flush the wound with running water. Disinfect with 75% alcohol or 0.05% iodophor	Immediately leave the isolation area. Gargle with plenty of normal saline or 0.05% iodophor. Dip a cotton swab into 75% alcohol, and wipe the nasal cavity in a circular motion gently
Evacuate from the isolation area and enter self-isolation				
Report to relevant department (ie. IEDCR) and monitor the symptoms				

11. Procedures for handling bodies of deceased suspected/confirmed COVID19 patients

- i. Staff PPE: The staff must make sure they are fully protected by wearing work clothes, disposable surgical caps, disposable gloves and thick rubber gloves with long sleeves, medical disposable protective clothing, medical protective masks(N95) or powered



air purifying respirators (PAPRs), protective face shields, workshoes or rubber boots, waterproof boot covers, waterproof aprons or waterproof isolation gowns etc.

- ii. Corpse care: Fill all openings or wounds the patient may have, such as mouth, nose, ears, anus and tracheotomy openings, by using cotton balls or gauze dipped in 3000-5000 mg/L chlorine-containing disinfectant or 0.5% peroxyacetic acid
- iii. Wrapping: Wrap the corpse with a double-layer cloth sheet soaked with disinfectant, and pack it into a double-layer, sealed, leak-proof corpse wrapping sheet soaked with chlorine containing disinfectant
- iv. The body shall be transferred by the staff in the isolation ward of the hospital to a specified location for burial/cremation by a special vehicle as soon as possible
- v. Final disinfection: Perform final disinfection of the ward

Management of health care workers exposed to COVID-19

1. Recommendations for health care workers at high risk for COVID19

- i. Stop all health care interactions with patients for a period of 14 days after the last day of exposure to a confirmed COVID-19 patient
- ii. Be tested for COVID-19
- iii. Quarantine for 14 days in a designated setting.

2. Recommendations for health workers at low risk for COVID-19

- i. Self-monitor temperature and respiratory symptoms daily for 14 days after the last day of exposure to a COVID-19 patient. Health personnel should call the health care facility if they develop any symptoms suggestive of COVID-19
- ii. Reinforce contact and droplet precautions when caring for all patients with acute respiratory illness and standard precautions for all patients
- iii. Reinforce airborne precautions for aerosol-generating procedures on all suspected and confirmed COVID-19 patients
- iv. Reinforce the rational, correct, and consistent use of personal protective equipment
- v. Apply WHO's "My 5 Moments for Hand Hygiene" before touching a patient, before any clean or aseptic procedure, after exposure to body fluid, after touching a patient, and after touching a patient's surroundings
- vi. Practice respiratory etiquette at all time.

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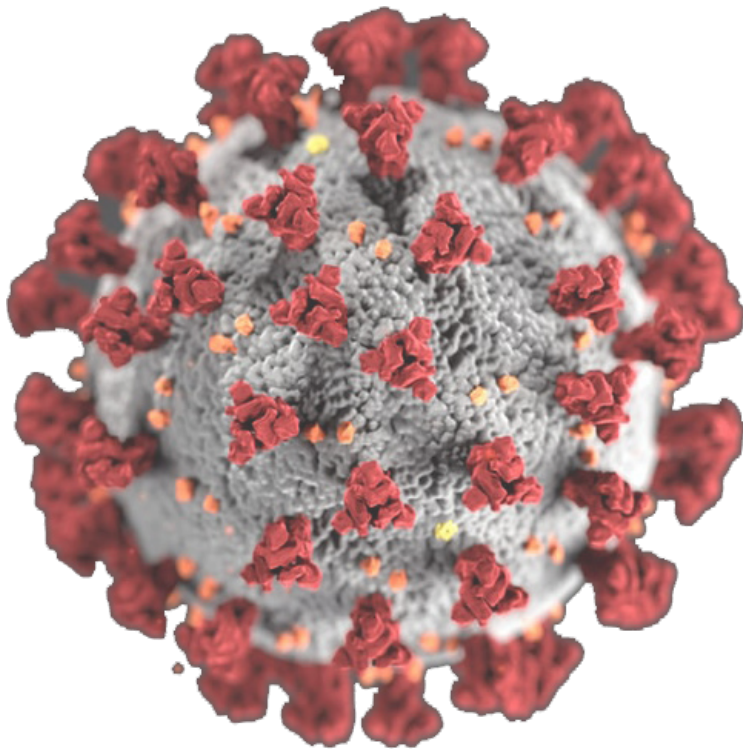
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