

## Infection Prevention & Control Practices during Sample Collection & Transportation from COVID-19 patient or suspect

1. The clinician should decide the necessity for collection of clinical samples following relevant guidelines.
2. Trained HCW would collect the samples
3. Sample should be collected in a well-lit and ventilated separate **designated room/area** as respiratory sample collection is an aerosol generating procedure.
4. Prepare a checklist of things required for sample collection
5. Wear full PPE ( including N95 respirator, gloves, face shield/goggles, cap, gown, shoe covers) in the designated donning area following the proper sequence (SOP)
6. Follow all biosafety precautions while carrying out sample collection and packaging.
7. **Respiratory Sample for PCR:**
  - a. Collect oropharyngeal & nasopharyngeal swab samples and put both these swabs into a single VTM tube (Follow the sample collection SOPs)
  - b. Ensure the outer and inner surface of vaccine carrier and icepacks are disinfected by 1% hypochlorite/70% alcohol before putting sample tubes into it.
  - c. Do not contaminate outer surface of tubes and do not handle the laboratory requisition forms with gloved hands
  - d. Disinfect the tertiary container/vaccine carrier with 1% hypochlorite solution/70 % alcohol and send the sample to PCR Laboratory through a dedicated HCW wearing appropriate PPE (triple layer surgical mask/N 95, gloves, gown, face shield/goggles), and also inform concerned laboratory beforehand.
  - e. The PPE should be removed slowly & carefully in the designated doffing area following doffing sequence to prevent self-contamination. Doffing is the most crucial step.
  - f. PPE should be properly disposed. Put all PPE in the designated BMW bins (BMWM rules 2016 as amended follow SOPs, charts displayed)
8. **Other specimens for different Laboratories** (Biochemistry, Serology, emergency lab, haematology, blood bank, virology, bacteriology etc.) for testing other than PCR.
  - a. Specimens like sputum, BAL, stool for routine ,urine routine, cytology etc. may be avoided if not affecting treatment protocols or some alternative method of diagnosis available. Sterile body fluids should be sent in automated blood culture bottles system ( issued from Microbiology dept.)
  - b. Blood sample : serum separator vacutainer(yellow cap) , should be preferred for serum (obviates need for centrifugation). Rest of the specimen containers would be according to the need of the test ordered.
  - c. Ensure proper labelling of containers, disinfect the outer surface (1% hypochlorite/70% alcohol), put the tube into secondary container(ziplock pouch/leak proof container). disinfect outer surface as described. Put the secondary container in a tertiary container which would enable easy transportation to laboratory. (plastic box/vaccine carrier). The outer container is also disinfected before transportation to laboratories.

- d. The requisition forms may be communicated through mail/or any other electronic media if feasible. Reports can be generated in a similar way. If not possible, requisition forms completely filled in , and put in a paper envelope.
  - e. Transport the samples to the respective laboratories through a dedicated HCW (not through attendants).
  - f. All other clinical samples would be collected and transported on the similar lines.
  - g. Clinical samples sent for histopathology must be sent in 10% formalin in a leak proof container. Ensure triple packing. Histopathology samples should not be sent in saline.
  - h. Frozen section to be avoided.
9. Following infection prevention and control practices should be followed in **walk in sample collection Kiosks** installed by the institution:
    - a. Installed in a well ventilated and open space.
    - b. All the persons in waiting area should wear surgical mask and there should be 1-2 meter distance between them.
    - c. The built in gloves and sitting chair of patient should be disinfected with (70% alcohol) after each patient. The surfaces, shelves, front glass etc. shall be disinfected every 2 hrs.
    - d. The patient and attendant (if patient needs attendant) should disinfect their hands before leaving the area.
    - e. The inside of Kiosk should be disinfected at least twice daily. It should have provision for fresh air inside (eg exhaust fan).
    - f. The HCW collecting the sample shall wear appropriate PPE(triple layer mask/ N95 mask, gloves, eye shield/goggle. May be gown & cap depending on the risk assessment.) and follow all standard precautions.
    - g. Donning and doffing of PPE should be done in designated area and ensure proper disposal of PPE (SOPs)
    - h. Collect oropharyngeal & nasopharyngeal swab samples and put both these swabs into a single VTM tube (Follow the sample collection SOPs) .Ensure triple packing.
    - i. Ensure the outer and inner surface of vaccine carrier and icepacks are disinfected(each time when a fresh vaccine carrier used) by 1% hypochlorite/70% alcohol before putting sample tubes into it.
    - j. The vaccine carrier should be disinfected with 1% hypochlorite/70% alcohol before the transportation to laboratory.
    - k. Staff/HCW guiding patients at Kiosk shall wear surgical mask, gloves, goggles.
    - l. The HCW transporting samples shall wear triple layer surgical mask/N95 mask, gloves, eye shield, gown and follow all standard precautions.
    - m. Sanitation and cleaning staff shall wear heavy duty gloves, N95 mask, eye shield, cap, apron, boot and follow all standard precautions.
    - n. The BMW (eg remaining parts of swab stick) generated at the site should be put in the yellow bins placed appropriately ( COVID waste)
  10. BMW management and environmental cleaning would be as per institutional policy(SOPs)
  11. 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)

12. The clinical samples from non- COVID areas (wards/OPDs) should preferably be sent in leak proof container after proper disinfection of outer surface of the container through a dedicated health care worker. These samples shall be processed in the routine laboratory with all standard precautions and good laboratory practices and wearing appropriate PPE (mask & gloves, eye shield/goggles, gown, hand hygiene) depending on the risk assessment.


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

- i. Judicious and appropriate use of PPE requested.
- ii. The Basic Principles of IPC and Standard precautions should be applied in all health care facilities.
- iii. 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: WHO biosafety manual(3<sup>rd</sup> edition), MoH&FW.2020,(National guidelines) MoH&FW, TOTs, DGHS(Emergency medical relief) IPC SOPs of PGI Chandigarh, IPC guidelines JIPMER, Puducherry, AIIMS, New Delhi , AIIMS Rishikesh with institutional modification after discussion among members of different committees.

  
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