

**STANDARD OPERATING  
PROCEDURE (SOP)**

**FOR**

**COVID WASTE  
MANAGEMENT**

**SWAMI VIVEKANAND**

**SUBHARTI UNIVERSITY**

**MEERUT-250005**

## **Guidelines for Handling, Treatment and Disposal of Waste Generated during Treatment/Diagnosis/ Quarantine of COVID-19**

In order to deal with COVID-19 pandemic, the University has decided to issue the following instructions to be followed by all the concerned persons especially in the Medical and the Dental Colleges and associated hospitals.

Though the basic principle of management of BMW is as per Rule 2016 & Amendment 2018, this notification is a Guideline for Handling, Treatment and Disposal of Waste Generated during Treatment/Diagnosis/ Quarantine of COVID-19 patients and persons staying in quarantine hostel.

(A) **COVID-19 Isolation wards/ICU: (isolation wards are those where COVID-19 positive patients are being kept for treatment / diagnosis)**

The Medical College needs to follow these steps to ensure safe handling and disposal of biomedical waste generated during treatment;

- a) Keep separate color coded bins (with foot operated lids) 2/bags/containers in wards and maintain proper segregation of waste as per BMW Rules, 2016 as amended and CPCB guidelines for implementation of BMW Management Rules **labelled as “COVID-19Waste”**.
- b) 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.
- c) Collect and store biomedical waste separately prior to handing over the same CBWTF. Use a dedicated collection bin labeled as “COVID-19 Waste” and keep separately in temporary storage room prior to handing over to authorize staff of CBWTF (**Synergy**). Biomedical waste collected in such isolation wards can also be lifted directly from ward into CBWTF collection van.
- d) **General solid waste:** comprising of wrappers of medicines/syringes, fruit peel offs, empty juice bottles or tetra packs, used water bottles, discarded papers, carton boxes of medicines, empty bottles of disinfectants, left-over food, disposable food plates etc., should be collected separately as per SWM Rules, 2016. In order to minimize waste generation, as far as possible, non-disposable items must be used for serving food, which are to be handle with appropriate precautions and cleaned and disinfected as per hospital guidelines. If use of

disposable items is inevitable, use bio-degradable cutlery. The wet and dry solid waste bags to be tied securely in leak-proof bags, sprayed with sodium hypo-chlorite solution and hand over to authorize waste collector of Nagar Nigam on daily basis. Yellow colored bags should not be used for collecting general solid waste. Compostable bags should be used for collecting wet- waste.

- e) Use **dedicated trolley** and **collection** bins and **label as “COVID-19Waste”**.
- f) The (inner and outer) surface of containers/bins/trolleys used for storage of COVID-19 waste should be disinfected with 1% sodium hypochlorite solution daily.
- g) Depute dedicated sanitation workers separately for biomedical waste and general solid waste so that waste can be collected and transferred timely to temporary waste storage area.
- h) Feces from COVID-19 confirmed patient, who is unable to use toilets and excreta is collected in diaper, must be treated as biomedical waste and should be placed in yellowbag/container.
- i) However, if a bedpan is used, then feces to be washed into toilet and cleaned with a neutral detergent and water, disinfected with a 0.5% chlorine solution, then rinsed with clean water.
- j) **Collect used PPEs such as goggles, face-shield, splash proof apron, Plastic Coverall, Hazmet suit, nitrile gloves into RED BAG.**
- k) **Collect used mask (including Triple layer mask, N95 mask etc.), head cover/cap, shoe- cover, disposable linen Gown, non-plastic or semi-plastic coverall in YELLOW BAGS.**
- l) Used masks, tissues and toiletries, of COVID-19 patient shall become biomedical waste and shall be segregated in Yellow bag.
- m) Segregation of biomedical waste and general solid waste should be done at the point of generation in wards / isolation rooms. There should be no segregation of biomedical waste and solid waste at temporary waste collection / storage area to ensure occupational safety.
- n) Provide training to Waste handlers about infection prevention measures ie. Hand hygiene, Respiratory etiquettes, social distancing, use of appropriate PPE, etc. by videos and demonstration in Hindi language. Designated nodal officer for biomedical waste management in hospital shall provide training. Nodal officers, in turn, need to be trained by the doctors deputed by the Medical Superintendent/Principal of the College.

**(B) Sample Collection Centers and Laboratories for COVID-19 suspected patients**

- a) **Pre-treat viral transport media, plastic vials, vacutainers, eppendorf tubes, plastic cryovials and pipette tips as per BMW Rules, 2016 and collect in RED BAGS.**

**(C) Quarantine Hostels**

- a) **Biomedical waste generated from Quarantine Hostels would be treated as ‘domestic hazardous waste’ as defined under Solid Waste Management Rules, 2016, and shall be disposed as per provisions under Biomedical Waste Management Rules, of the University.**
- b) Left-over food, empty juice bottles or tetra packs, empty water bottles, packaging material, and any other items, generated or handled by COVID-19 suspected person should be collected along with other general solid waste in bags securely tied for handing over to waste collectors engaged by Nagar Nigam. Yellow colored bag should not be used for general solid waste.
- c) Only the used masks, gloves and tissues or swabs contaminated with blood / body fluids of COVID-19 suspected persons, including used syringes, medicines, etc., if any generated should be treated as biomedical waste and collect the same in yellow bag.
- d) Masks and gloves used by persons other than COVID-19 patients should be kept in paper bag for a minimum of 72 hours prior to disposal of the same as general waste after cutting the same to prevent reuse.
- e) **Waste collectors arriving at quarantine center to spray the disinfectant (1% sodium hypochlorite solution) on the solid waste bags and the bin used for yellow bags.**

**(D) Management of wastewater from Hospital:**

- a) As the risk of transmission of virus that causes COVID-19 through sewerage systems is thought to be low. Transmission to operators may be possible during treatment of sewage treatment plants;
- b) The in-charge of ETP/STP unit shall continue to ensure disinfection of treated wastewater to inactivate corona viruses.
- c) Operators of ETPs/STPs should adopt standard operational practices, practice basic hygiene precautions, and wear personal protective equipment (PPE). PPEs should include Goggles, face mask, liquid repellent coveralls, waterproof gloves and Rubber boots.

**(E) Disposal of used PPEs**

**PPE disposal:**

- a. Gloves, plastic apron, goggles –RED Bag
- b. Non-plastic items such as Mask, gown, cap, shoe cover : YELLOW Bag
  - i. Masks and gloves in general households should be kept in paper bag for a minimum of 72 hours prior to disposal of the same as dry general solid waste after cutting/shredding the same to prevent reuse.
  - ii. Discarded PPEs containing plastic should be shredded and sent to SPCB authorized plastic waste recyclers, or may be converted into refuse derived fuel or for road making.
  - iii. PPEs doffed by healthcare workers accompanying diseased body of COVID-19 patient to crematorium / graveyards should be treated as biomedical waste and disposed as per provisions under SWM Rules, 2016 and BMW Management Rules, 2016.

.....