

Revision 4

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

21st July, 2020

[In suppression of earlier guidelines uploaded at CPCB website on 10.06.2020. Text pertaining to
additional information is underlined]



Central Pollution Control Board

(Ministry of Environment, Forest & Climate Change)

Parivesh Bhawan, East Arjun Nagar

Delhi – 110032

Guidelines for Handling, Treatment, and Disposal of Waste Generated during Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 4

In order to deal with COVID-19 pandemic, State and Central Governments have initiated various steps, which include setting up of quarantine centers/camps, Isolation wards, sample collection centers and laboratories.

Following specific guidelines for management of waste generated during diagnostics and treatment of COVID-19 suspected / confirmed patients, are required to be followed by all the stakeholders including isolation wards, quarantine centers, sample collection centers, laboratories, ULBs and common biomedical waste treatment and disposal facilities, in addition to existing practices under BMW Management Rules, 2016.

These guidelines are based on current knowledge on COVID-19 and existing practices in management of infectious waste generated in hospitals while treating viral and other contagious diseases like HIV, H1N1, etc. These guidelines will be updated if need arises. This revision-4 of guidelines issued to provide revised guidance on segregation of general solid waste and biomedical waste from quarantine centers/home-care/healthcare facilities treating COVID-19 patients and to recommend on disposal of PPEs.

Guidelines brought out by WHO, MoH&FW, ICMR, CDC and other concerned agencies from time to time may also be referred for understanding other aspects related to COVID-19.

Guidelines for handling, treatment and disposal of COVID-19 waste at Healthcare Facilities, Quarantine Camps/ Quarantine-homes/ Home-care, Sample Collection Centers, Laboratories, SPCBs/PCCs, ULBs and CBWTFs is give below;

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

Healthcare Facilities having isolation wards including temporary Healthcare Facilities like rail coach wards, COVID Care Centers etc.¹ for COVID-19 patients need to follow these steps to ensure safe handling and disposal of biomedical waste generated during treatment;

- Keep separate color coded bins (with foot operated lids)²/bags/containers in wards and maintain proper segregation of waste as per BMWM Rules, 2016 as amended and CPCB guidelines for implementation of BMW Management Rules.
- 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;
- Collect and store biomedical waste separately prior to handing over the same CBWTF. Use a dedicated collection bin labelled as "COVID-19" to store COVID-19 waste and keep separately in temporary storage room prior to handing over to authorized staff of CBWTF. Biomedical waste collected in such isolation wards can also be lifted directly from ward into CBWTF collection van.
- In addition to mandatory labelling, bags/containers used for collecting biomedical waste from COVID-19 wards, should be labelled as "COVID-19 Waste". This marking would enable CBWTFs to identify the waste easily for priority treatment and disposal immediately upon the receipt.

¹ Para amended in Rev. 4 dated 17.07.2020

² Inserted in Rev. 3 of guidelines dated 10.06.2020

**Guidelines for Handling, Treatment, and Disposal of Waste Generated during
Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 4**

- 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 authorized waste collector of ULB's on daily basis. Yellow colored bags should not be used for collecting general solid waste. Compostable bags should be used for collecting wet-waste.¹
- Maintain separate records of waste generated from COVID-19 isolation wards.
- Use dedicated trolleys and collection bins in COVID-19 isolation wards. A label "COVID-19 Waste" to be pasted on these items also.
- 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.
- Report opening or operation of COVID-19 ward and COVID-19 ICU ward to SPCBs/PCCs and respective CBWTF located in the area.
- Register in CPCB mobile application namely 'COVID19BWM' to update the details of COVID-19 biomedical waste generation.
- 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.
- 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 yellow bag/container. However, if a bedpan is used, then faeces 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.²
- Collect used PPEs such as goggles, face-shield, splash proof apron, Plastic Coverall, Hazmet suit, nitrile gloves into Red bag;³
- 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.⁴
- Used masks, tissues and toiletries, of COVID-19 patient shall become biomedical waste and shall be segregated in yellow bag.⁵
- 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

¹ Para revised in Rev. 3 dated 10.06.2020 & Rev 4 dated 17.07.2020

² Para Inserted in Rev. 2 dated 18.04.2020

³ Para inserted in Rev. 2 dated 18.04.2020

⁴ Para inserted in Rev. 2 dated 18.04.2020

⁵ Inserted in Rev. 3 dated 10.06.2020 and revised in Rev 4 dated 17.07.2020