

# **WHO and UNDP guidance on HCWM in response to COVID-19**

**- UNDP Seoul Policy Centre Webinar Series -**

## **Building Back Better: Managing Healthcare Waste Management During COVID-19 in Korea and Elsewhere**

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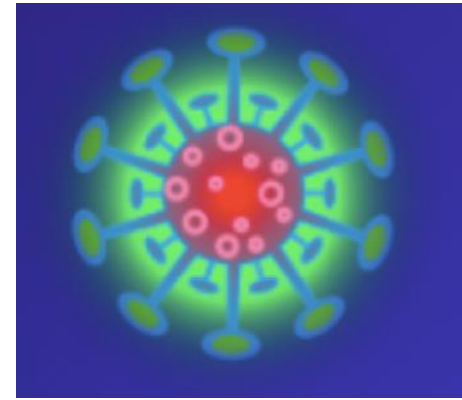
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## Key messages

- Conduct rapid needs assessment of the COVID related waste
- Integrate the HCWM into the procurement plans of the COVID Supplies:
  - Short term: Consumables, PPE, local production of hand sanitizers
  - Midterm: Importation and installation of waste treatment systems
- Strengthen national capacity
- Facilitate Technical support in policy, strategy action plans development
- Promote clean solutions for HCWM (BAT)





# Key documents on waste in HCF



## Water, sanitation, hygiene, and waste management for the COVID-19 virus

Interim guidance  
19 March 2020

### Background

This interim guidance supplements the infection prevention and control (IPC) documents by summarizing WHO guidance on water, sanitation and health care waste relevant to viruses, including coronaviruses. It is intended for water and sanitation practitioners and providers and health care providers who want to learn more about water, sanitation and hygiene (WASH) risks and practices.

The provision of safe water, sanitation, and hygienic conditions is essential to protecting human health during all infectious disease outbreaks, including the COVID-19 outbreak. Ensuring good and consistently applied WASH and waste management practices in communities, homes, schools, workplaces, and health care facilities will help prevent human-to-human transmission of the COVID-19 virus.

The most important information concerning WASH and the COVID-19 virus is summarized here:

• Frequent and proper hand hygiene is one of the most important measures that can be used to prevent infection with the COVID-19 virus. WASH practitioners should work to enable more frequent and regular hand hygiene by improving facilities and using proven behavior-change techniques.

### 1. COVID-19 transmission

There are two main routes of transmission of the COVID-19 virus: respiratory and contact. Respiratory droplets are generated when an infected person coughs or sneezes. Any person who is in close contact with someone who has respiratory symptoms (coughing, sneezing) is at risk of being exposed to potentially infective respiratory droplets. Droplets may also land on surfaces where the virus could remain viable. Thus, the immediate environment of an infected individual can serve as a point of contact (transmission).

Approximately 2–10% of cases of disease present with diarrhoea<sup>10</sup> and COVID-19 viral RNA fragments in COVID-19 patients.<sup>11</sup> However, only the COVID-19 virus from a single case have been seen in reports of faecal-oral COVID-19 virus.

### 2. Persistence of the COVID-19 virus on surfaces

Although persistence in droplets on surfaces has been reported, no evidence from seroprevalence studies is present in surface or groundwater.

## COVID-19 technical note and FAQs



## Coronavirus waste FAQ

Last updated: 3 April 2020

### 1 Waste from COVID-19 infected patients in hospitals (confirmed cases)

Do I need to treat all waste from covid-19 patients as infectious?  
No, personal protective and hygiene gear, used sharps, gloves, gowns, and coronavirus waste are ordinary infectious waste. Note: The virus is not classified as highly infectious.

How do I handle infectious waste from COVID-19 patients?  
Coronavirus waste is handled in the same way as normal infectious waste. Medical staff should wear appropriate PPE. Disposable infectious waste is all medical, which should be colour coded and labelled according to national or WHO standards. Collect the waste in containers only. Monitor segregation bins and disposal of sharps. Double bagging of solid wastes and all waste need to be wrapped in a leak-proof container, labelled with the biohazard symbol. Storage, treatment and disposal should be done with other infectious waste at the hospital, or in central treatment plants in accordance with the national and international standards.

Do I need specific PPE or specific hand disinfection procedures?  
No, you should follow your national and infection prevention and control (IPC) and hand disinfection procedures. Use hand hygiene or sanitizer if necessary. Frequent washing can dry and erode skin, reducing its ability to protect you from infection.

Can I reuse my PPE?  
Only PPE marked as reusable should be reused, following the manufacturer's instructions. All other PPE must be discarded after use. Research is ongoing into methods of reprocessing PPE, notably <https://www.who.int/news/item/16-04-2020-reusable-ppe>, but methods are not yet available.

How are surfaces cleaned which have been in contact with COVID-19 patients?  
When disinfecting surfaces, an additional PPE (goggles) will be worn when disinfecting. The virus is susceptible to most normal disinfectants. WHO recommends 70% ethyl alcohol to disinfect or 0.05% chlorine solution (e.g. 100 mg/l) between uses and sodium hypochlorite at 1:10 (100 mg/l) to 1:100 (10 mg/l) for disinfection of frequently touched surfaces. Once the surface or equipment is cleaned with the cleaning product, the area can be rinsed with clean water. The efficacy of disinfectants can be reduced by organic matter so visibly dirty surfaces should first be cleaned with soap and water.

Can I transport COVID-19 waste to central treatment facilities?  
Yes, waste from COVID-19 patients is not considered as highly infectious waste and therefore can be transported to central treatment facilities for other infectious waste. If transport and treatment or disposal requirements are available and any necessary permits have been obtained.



## Baseline reports and practical actions

**Safe management of wastes from health-care activities**

Second edition

Edited by Wiro Chitkar, Jorge Borrero, et al., Jim Pease, Arunima Pal, Paul R. Anderson, Raju Sangar, William Townsend, Susan Williamson & Neel Ghosh

**Overview of technologies for the treatment of infectious and sharp waste from health care facilities**



# UNDP-GEF: Coronavirus waste FAQ

- [FAQ](#) developed by UNDP&WHO&HCWH (see Covid-19 Global team folder, section 2.1 Health Systems Support or [on-line folder](#)):
  1. Community Waste during COVID-19 outbreak
  2. Waste from healthcare facilities during a COVID-19 outbreak
  3. Protection of Waste handler
  4. Waste transportation
  5. Technologies including green options



The FAQ was developed as emergency response on questions on Healthcare Waste (HCW) issues arising from the COVID-19 outbreak in 2020 in our project countries. The FAQ is mainly destined to health care professionals; however, general public may be interested in the information for persons in quarantine at home (in particular, in their case, section 2 on this subject). Due to the emergency situation, the document was only partly reviewed by the project partners and will be regularly updated. The views expressed in the document are those of the authors and do not necessarily reflect the official opinion of the GEF, UNDP or WHO. Neither the organizations nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.

## Coronavirus waste FAQ

Last updated: 26 May 2020

### 1 General advice

#### Can COVID-19 spread through waste?

There is no evidence that direct, unprotected human contact during the handling of health care waste has resulted in the transmission of the COVID-19 virus.

**Regular handwashing/hand hygiene, maintaining physical distance from others and not touching the face are the most important measures to prevent the spread of COVID-19.**

### 2 Community waste during COVID-19 outbreak

#### How should masks or gloves being worn in the community be disposed of?

The use of reusable cloth masks should be encouraged to reduce waste generation and to prevent shortages of supplies required by medical staff. These should be washed at 60°C after each use. Single use masks and gloves should be disposed of as normal general waste in a lined bin, the bag should be sealed, and disposed of in a municipal landfill. Masks or gloves should be destroyed (e.g. by cutting) before disposal to prevent reuse. Take off masks only touching the elastic or ties, and always wash or sanitize hands after taking off PPE.

#### What do I do with the waste generated at home from suspected or confirmed COVID-19 cases?

Waste generated at home is classified as non-hazardous waste and can be disposed of with the other general waste for disposal. No disinfection or other precautionary measures are necessary. However, if there is a possibility that masks or PPE are being targeted for illegal reuse, they can be cut or mutilated before disposal.

Waste should be packed in strong bags and closed securely. Wash or sanitize hands after removing gloves and masks and after handling waste or bags.

As a minimum standard the local sanitary authority should ensure that the waste is disposed of at a sanitary landfill and not at an unmonitored open dump<sup>1</sup>.

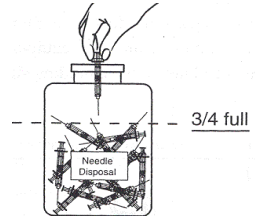
<sup>1</sup> WHO (2020). Home care for patients with COVID-19 presenting with mild symptoms and management of their contacts.

**Last update: 26.05.2020**



# WHO: Waste from COVID-19 patients

- Best practices for safely managing health care waste should be followed, including assigning responsibility and sufficient human and material resources to treat / dispose of waste safely.
- Health care waste produced during the care of confirmed COVID-19 patients **is considered as infectious** (infectious, sharps and pathological waste):
  - Segregation at the place of generation
  - Collection: in leak-proof strong plastic bag placed in a container / sharp container marked with the biohazard symbol
  - Separated and safe transport and storage of hazardous and non-hazardous waste
  - Treatment preferable in accordance with BAT
  - Safe disposal



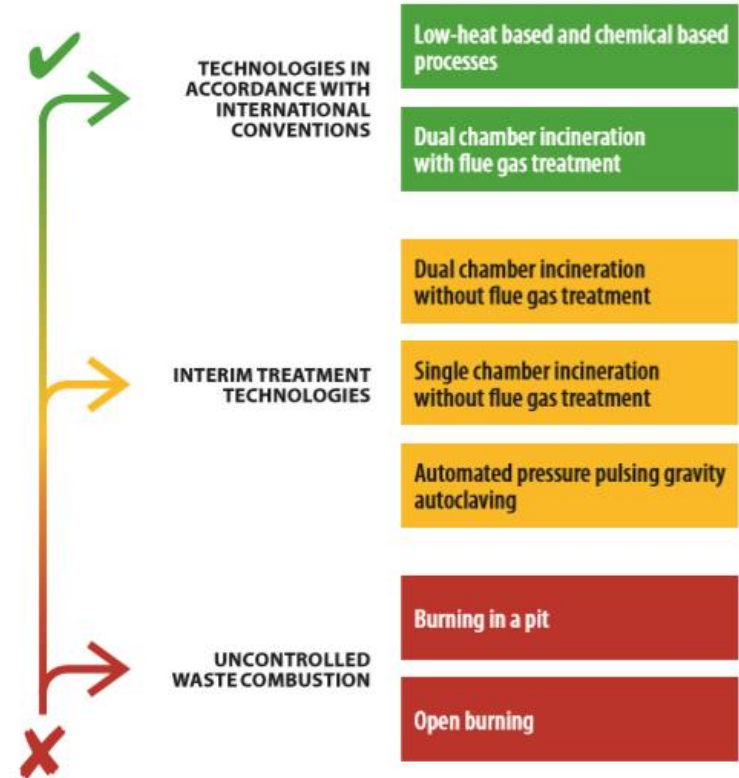
[WASH \(including HCWM\) interim guideline:](https://www.washinhcf.org/resources)

<https://www.washinhcf.org/resources> (last update 23.4.2020)



# Treatment of infectious / sharp waste

- WHO calls on all stakeholders to uphold the Stockholm Convention on POPs:
  - Usage of high temperature incineration, autoclaving, microwaving
- In low-resource or emergency settings, transitional methods can be used BUT...
- ...efforts should be made to incrementally improve HCWM and engage in multi-sectoral efforts to strengthen systems change.



[https://www.who.int/water\\_sanitation\\_health/publications/technologies-for-the-treatment-of-infectious-and-sharp-waste/en/](https://www.who.int/water_sanitation_health/publications/technologies-for-the-treatment-of-infectious-and-sharp-waste/en/)





# WHO: Prepare for extra waste generation

- Waste generated in **waiting areas of health care facilities or at home during home based** quarantine:
  - classified as **non-hazardous** and
  - should be packed in strong black bags and closed properly before disposal by municipal waste services.
- It is important to **asses** the existing waste treatment capacity as the volume of waste during an outbreak will increase (mainly PPE) and additional treatment capacity might be needed.

## Waste handlers:

- wear appropriate PPE (boots, long-sleeved gown, heavy-duty gloves, mask, and goggles or a face shield) and
- perform hand hygiene after removing it.



## Note: .

A surgical or even a cloth mask can protect against splashes and also help prevent workers touching their faces (N95, FFP2 or 3 masks are not essential).

[WASH \(including HCWM\) interim guideline:](https://www.washinhcf.org/resources)

<https://www.washinhcf.org/resources> (last update 23.4.2020)



# Lesson Learned from Ebola

- What we do not want... during Ebola, dozens of treatment plants (incinerators, autoclaves, shredders) were dropped at the Ebola Treatment Units







# Example: UNDP GHANA'S RESPONSE

## 1. SHORT-TERM/IMMEDIATE INTERVENTIONS

- a) Technical Support to National COVID-19 Team on integration of HCWM into national response to COVID-19.
- b) Training for health care practitioners on best HCWM practices.
- c) Support Health Facilities Regulatory Authority (HeFRA) to conduct monitoring activities.
- d) Support local production of hand sanitizers.
- e) Procurement of consumables and PPEs.



## 2. MEDIUM-TERM INTERVENTIONS

- a) Importation and installation of autoclave treatment systems.



# Relevant references

- UNEP (2003). Technical guidelines on the environmentally sound management of biomedical and healthcare waste. <http://archive.basel.int/pub/techguid/tech-biomedical.pdf>
- UNEP (2007). Guidelines on best available techniques and provisional guidance on best environmental practices relevant to Article 5 and Annex C of the Stockholm Convention on Persistent Organic Pollutant. <http://chm.pops.int/Implementation/BATandBEP/BATBEPGuidelinesArticle5/tabid/187/Default.aspx>
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- WHO (2019). Overview of technologies for the treatment of infectious and sharp waste from health care facilities”; [https://www.who.int/water\\_sanitation\\_health/publications/technologies-for-the-treatment-of-infectious-and-sharp-waste/en/index.html](https://www.who.int/water_sanitation_health/publications/technologies-for-the-treatment-of-infectious-and-sharp-waste/en/index.html)
- WHO (2020), Water, sanitation, hygiene and waste management for COVID-19 technical guidance [https://www.who.int/water\\_sanitation\\_health/news-events/wash-and-covid-19/en/](https://www.who.int/water_sanitation_health/news-events/wash-and-covid-19/en/)