

## Recommendations for healthcare waste disposal on landfills during COVID19 pandemics

Healthcare waste is **potential source of infections**, and as such it has to be safely and properly collected, treated and disposed of. Additional problem during the pandemics, despite of the usual practice of separating hospital waste to infectious and noninfectious, is to consider applying the precautionary principle of all hospital waste is usually considered as infectious.

! Lack of proper healthcare waste treatment in developing countries is present, so landfills become final destinations for this type of infectious waste.

! It is necessary that all workers on the landfill are informed and protected from this type of hazards.

Increased quantities of healthcare waste, comparing to normal periods, have to be treated and disposed of safely. Proper disposal of such waste implies 4 key rules:

1.

### THE SAFER THE BETTER

! If there is no thermal treatment available for healthcare waste than first option is to dispose of on sanitary landfill!

! Avoid putting healthcare waste in a dumpsite is a must!

2.

### NO CONTACT

! Make sure that waste workers and informal collectors do not get in contact with healthcare waste during the disposal.

3.

### NO BUSINESS AS USUAL

! Do not dispose of healthcare waste with the usual landfill operations.

! In case healthcare waste is brought for the disposal site waste workers should be informed and if possible, special precautionary measures are to be applied:

If possible,  
**use masks  
and gloves.**

In any case  
**avoid any  
direct  
contact** with  
waste.

The waste should  
be unloaded **as  
close as possible  
to the dumping  
area** (to prevent  
additional  
moving, because  
the wind can  
blow the waste).

The waste has to be  
dumped **of immediately  
after unloading** as not  
to present potential source  
of infections for animals,  
birds and people –  
especially if there are  
informal collectors on the  
landfill.

4.

**GO IN DEPTH  
AND ISOLATE**

! This is the general principle for dumping healthcare waste in landfills, and there are four ways to do it:

**Put healthcare waste  
in the daily tipping  
area**

- make shallow hollow and fill it with healthcare waste
- cover it with soil
- on top of it build new waste layers at least 2m high
- make sure that informal waste collectors do not have access to healthcare waste

**Use the old part of  
the landfill**

- find a place on top of mature waste (3 months old)
- excavate a 2m deep trench
- fill it with healthcare waste
- cover it with excavated mature waste
- put soil on top (0.5-1m high)
- make sure that informal waste collectors do not have access to healthcare waste

**Create special burial  
pits for healthcare  
waste**

- isolate and fence area in the landfill
- excavate a 2m deep pit
- put healthcare waste in layers with soil on top of each layer
- add lime if possible
- fill the pit until max 0.5m below the surface and fill the final 0.5m with soil
- make sure that informal waste collectors do not have access to fenced area

**Incapsulate**

- fill metal or plastic containers up to  $\frac{3}{4}$  with waste
- add a medium like plastic foam, bituminous sand, cement mortar or clay on top to seal them
- after the medium is dried dispose the containers in the landfill

International Solid Waste Association (ISWA) has the biggest online library of waste management related documents: [www.iswa.org/media/publications/knowledge-base](http://www.iswa.org/media/publications/knowledge-base). Here you can access over 4.000 documents, where at least 150 are related to medical and healthcare waste.