Managing health care waste in Nepal

In Nepal, hospitals and health care centers generate between 1 and 1.7 kg of health care waste per bed each day[1]. While 55 to 75% of the waste produced by health care is no more hazardous than simple household waste, the remainder is hazardous. If it is not properly segregated at source, all of it must be managed and treated as hazardous waste.

Poor management of these waste streams increases the risk of infections and the levels of environmental pollution in the surrounding communities.

The COVID-19 pandemic resulted in an increase in health care waste volumes and added additional strain on health systems, which struggled to manage and dispose of increasing quantities in a safe and timely manner.

From 2021 to 2023, Health Care Without Harm and HECAF360 will work with four hospitals in Kathmandu, Nepal, on a health care waste management project jointly initiated by the Ministry of Health and Population and the German Development Corporation. It is implemented by Support to Health Sector Strategy, GIZ-Nepal. The goal is to strengthen the capacity of these hospitals to comply with the *National health care waste management standard and operating procedures 2020*[1]. In particular, it will:

- Strengthen health care waste management at the project hospitals.
- Build capacity for monitoring and reporting of healthcare waste management.
- Share learning and innovations arising from the project.

What type of waste is considered hazardous?[2]

Hazardous waste includes categories that pose biological, chemical, radioactive, or physical hazards, such as:

Infectious waste

Sharp waste

Pathological waste

Pharmaceutical waste

Cytotoxic waste

Chemical waste

Radioactive waste

Non-hazardous waste does not pose a threat to human health **but still requires safe management** to retain the value of recyclable materials and prevent environmental pollution.

Health Care Without Harm and HECAF360 are partnering in a health care waste management project in Kathmandu, Nepal. The project is funded by the German Corporation for International Cooperation (GIZ).

Image from Freepik

Why is adequate waste management **important for your community**?

It reduces the exposure of health care staff, patients, visitors, and the entire community to injury and infection from hazardous waste originating in the hospital.

Reduces air, water, and soil pollution, and the release of toxic substances to the environment.

Reduces Greenhouse Gas (GHG) emissions like carbon dioxide (CO_2) and methane (CH_4) and recovers the value of recyclable materials.

How to **manage and sort waste** in your hospital?

Safe waste management starts with segregation so that each type of waste is directed to the right recycling, treatment, or disposal route. To help hospitals monitor, track, and sort waste, Health Care Without Harm and HECAF360 have developed six waste trackers. Health facilities can easily adapt these tools to determine how waste is generated, managed, and disposed of. One tool, the good practice checklist, is already incorporated in the national standard operating procedure (SOP) on health care waste management.

If useful, additional tools can be added when the SOP is revised.

Each of these spreadsheet-based tools is designed to address a different stage of the waste generation, treatment, recycling, and disposal cycle. The graphics and tables produced by the trackers show at a glance how the system is operating and help managers see where they can act to optimize processes and manage the waste from their hospital in the safest and most efficient way.

What can I do with the **tools**?

1 With the **waste audit** tool, you can collect data for 14 types of hazardous and non-hazardous wastes and estimate the potential annual income from selling them.

2 The **good practice checklist** allows you to check on the presence and condition of essential equipment like bins and needle cutters and assess waste segregation.

3 With the **waste generation tracker**, you can calculate and visualize the proportions of infectious and other types of waste and determine if amounts are increasing or decreasing.

4 The **autoclave operation log** shows the amounts of waste treated and the results of efficacy tests. With this tool you can easily determine if the autoclaves are operating as expected and at maximum capacity.

5 The **waste sales tracker** collects information on different recyclable waste streams such as paper, plastic, glass, and aluminum for facilities to calculate how much they are earning from their sale. This tracker form can also be used as an invoice, simplifying administration and financial record-keeping.

6 With the **waste disposal tool**, you can keep track of the amounts of waste sent to different disposal routes such as municipal landfills, incineration, or recycling. This tool was designed to help hospitals reduce the amount of waste incinerated or sent to landfills.

[1] Information from the National Health Care Waste Management Standards and Operating Procedure of Nepal.
https://climate.mohp.gov.np/downloads/National%20Health%20Care%20Waste%20Standard%20Operating%20Procedure-2020.pdf

[2] Information from the National Health Care Waste Management Standards and Operating Procedure of Nepal.
https://climate.mohp.gov.np/downloads/National%20Health%20Care%20Waste%20Standard%20Operating%20Procedure-2020.pdf

Download the tools and start managing waste in your hospital today: bit.ly/WasteTrackers