

Handicrafts from plastic waste – Burn patients that require physiotherapy are trained to make handicrafts from various types of plastics that are collected from the hospital.



Safe Injection Practice – Nurses have been trained on WHO's safe injection criteria focusing on safe handling of sharps and on safe disposal.

Managing Health care waste – the Bir hospital experience

Health-care activities such as immunization, diagnostic tests, medical treatment, and laboratory examinations protect and restore health and save lives. On the other hand, unsafe management and improper disposal of the wastes and by-products of these activities pose a number of life-threatening risks. Often due to inefficient systems, these infectious and hazardous wastes are mixed with general waste and thrown in landfill sites, thereby converting them into hazardous places. To address the solid waste problems in Bir hospital, a system was designed using a zero waste programme so that the

waste disposed into Kathmandu's municipal waste stream is negligible.

The health care waste management system at Bir hospital is based on three pillars that support each other—**waste management, injection safety, and mercury elimination**. The following are its specific components:

Ease of waste segregation – for convenience a trolley fitted with various colour-coded bins for risk and non-risk waste are used, accompanying visual messages are also placed in all wards to promote proper use.



Impact if expanded

The impact of this project can be seen in several aspects: experiential accounts show that hospital infection; prevention of needle stick injuries among waste handlers, prevention of reuse of syringes, cleaner rooms and surroundings, reduced waste that goes to landfilling, income for the hospital from the sale of recyclable waste, and, as a whole, the carbon footprint for hospital operations is reduced. There are plans to expand this health-care waste management approach to other hospitals.





Ease for transportation of waste – trolleys made from recycled materials designed to protect the waste handler are used to transport waste.

Treatment and storage of waste – Segregated waste is stored and sold from this place. Infectious waste is stored separately, treated and disposed.



Biological treatment of infected cotton and gauze – these are autoclaved and with this as the base material the hospital is testing vermicomposting i.e. composting of these materials with the use of a particular type of earthworms.



Biological treatment of food waste – a bio-digester plant where food waste is fed produces biogas for cooking and slurry for fertilizer. It generates about 6 cubic meters of biogas per day.

Mercury collection house – Discarded mercury-containing equipment and supplies (eg thermometers and sphygmomanometers) are collected, sealed and stored in a designated collection house. Until disposal options are developed, the safe storage of mercury is the best option for avoiding mercury spills and exposure.

