

Healthcare Waste: An Overview from Generation to Disposal

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Dear Madam,

Madam, waste resulting from healthcare activities consists of a diversity of substances like used syringes, soiled dressings, diagnostic samples, biochemical substances, pharmaceutical products, medical devices, radioactive materials and body parts¹. The World Health Organization (WHO) classifies healthcare waste into infectious waste that consists of blood and other bodily fluid; contaminated waste, cultures and stocks of infectious organisms from laboratories, pathological waste that consists of human tissues, organs or fluids; sharps waste that includes used syringes, needles, scalpels and blades; chemical waste that includes solvents and reagents meant for laboratory preparations, disinfectants, and heavy metals present in medical devices; pharmaceutical waste that includes expired and contaminated vaccines and drugs; cytotoxic waste that includes substances with genotoxic properties like cytotoxic drugs and their metabolites; radioactive waste that consists of radioactive diagnostic material or radiotherapeutic materials; and general waste that is not biologically, chemically, radioactively or physically hazardous². Healthcare waste is usually generated by healthcare institutions, laboratories and pharmacies while the people most exposed to it are healthcare personnel, waste handling staff and general public³. Hospital waste generation has been reported to range from 0.016 to 3.23 kg/bed-day⁴. Healthcare waste can be adequately managed by better education of healthcare workers and stan-

darized segregation of medical waste streams⁵. The latest guiding principles for segregation of bio-medical waste by WHO suggest a yellow leak-proof container with biohazard symbol for highly infectious, pathological and anatomical waste; a yellow puncture-proof container with biohazard symbol for sharp waste; a brown plastic bag or rigid container, labeled with suitable hazard symbol for chemical and pharmaceutical waste; a lead box, labeled with radiation symbol, for radioactive waste and a black plastic bag for general health-care waste³. Recommended ways of improving healthcare waste management includes promoting practices to reduce the volume of waste generated and ensuring its adequate segregation, developing strategies to improve waste destruction and disposal, defining responsibilities and allocating resources for its safe disposal and raising awareness about the risks associated with it². Unless serious efforts are made by all stakeholders to devise effective intervention strategies, inadequately disposed healthcare waste will continue to endanger the health of our masses.

References

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