

Brijendra Kumar Kashyap
Manoj Kumar Solanki *Editors*

Current Research Trends and Applications in Waste Management

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Biomedical Waste: Impact on Environment and Its Management in Health Care Facilities

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Gyanendra Kumar Sonkar, Sangeeta Singh,
and Satyendra Kumar Sonkar

Abstract

Waste of any origin, if not properly disposed, possess a significant threat to the environment. Biomedical waste is a potential health hazard generated from institutions and laboratories providing health care facilities which includes all sorts of pathological, pharmacological, genotoxic, chemical, and radioactive wastes. About 20% of waste generated during patient care is hazardous and carries various health risks to hospital staff, patients, attendants, and the general population. Proper segregation and disposal of biomedical waste is the need of the hour as it will prevent contamination of groundwater sources that affect the health of humans and animals. Proper packaging and labelling of waste prevent the spread of infection through humans and animals. Biomedical waste is the source of water contamination and, if not rendered harmless before it is buried in land or disposed of in the water. Biomedical waste contaminates air if not segregated or incinerated properly, resulting in highly hazardous airborne particles of contagious diseases. The diagnostic laboratories using radioactive substances are potential pollutants of landfills and the atmosphere. The spread of air pollutants over huge areas of inhabited land has the potential to trigger several illnesses. Hence, there should be the management of biomedical waste at each level (i.e., places of its generation, collection, storage, transportation, treatment, and disposal). The stakeholders, including health care sector, state pollution control

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