



**ORIGINAL RESEARCH PAPER**

**Management**

**A STUDY ON HOSPITAL WASTE MANAGEMENT**

**KEY WORDS:** biomedical waste, patient safety, infection control

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**ABSTRACT**

**Aim:** The study assessed the medical waste management practices in a tertiary care hospital.  
**Methods:** A pre-structured questionnaire was used to collect necessary information regarding the hospitals and biomedical waste (BMW) management of the hospitals.  
**Results:** In this study 100% of bins are kept in colour coding, were as the segregation of sharps has been followed 98%. Training not provided employees at the time of joining, where as 48% were trained during joining others trained in various training sessions conducted in hospital. There is no clear description motioned in roles and responsibilities of the staff regarding BMW.  
**Conclusion:** There should be proper training and management regarding awareness and practices of waste disposal.

**INTRODUCTION**

Patient safety is one of the crucial aspects of quality of healthcare and a determining factor in patient's health and lives<sup>1</sup>. Medical care is vital for our life and health, but the waste generated from medical activities represents a real problem of living nature and human world.<sup>2</sup> According to Biomedical Waste (Management and Handling) Rules, 1998 of India "Any waste which is generated during the diagnosis, treatment or immunization of human beings or animals or in research activities pertaining thereto or in the production or testing of biologicals."<sup>3</sup> Significant reduction of the waste generated in health-care establishments and research facilities may be encouraged by the implementation of certain policies and practices, including the following: Source reduction measures such as purchasing restrictions to ensure the selection of methods or supplies that are less wasteful or generate less hazardous waste. Recyclable products use of materials that may be recycled, either on-site or off-site. Good management and control practices apply particularly to the purchase and use of chemicals and pharmaceuticals. Waste segregation careful segregation (separation) of waste matter into different categories helps to minimize the quantities of hazardous waste<sup>4</sup>.

**AIM**

The study assessed the medical waste management practices in a tertiary care hospital.

**METHODS**

An observational study was conducted in a tertiary care hospital. A pre-structured questionnaire was used to collect necessary information regarding the hospitals and biomedical waste (BMW) management of the hospitals. The general information about the selected hospitals/employees of the hospitals was collected.

**RESULTS**

In this study 100% of bins are kept in colour coding, were as the segregation of sharps has been followed 98%. The segregation source was kept only main areas were as maintenance was not done properly. Records for waste segregation or collection was not maintained where as BMW vendor receipts maintained. Training not provided employees at the time of joining, where as 48% were trained during joining others trained in various training sessions conducted in hospital. There is no clear description motioned in roles and responsibilities of the staff regarding BMW.

**Table 1 Techniques used in the handling of waste**

Variables	Assessment Score
Segregation at Source	95%
Colour Coding	100%
Sharps segregation	98%
Record of Waste management	84%

**Table 2 Waste handling safety measures and disposal**

Variables	Assessment Score
Protective gears for waste handlers	72%
Appropriate internal waste transport vehicle	64%
Proper storage facility before disposal	86%
Use of Incinerator	N/A

**Table 3 Administrative aspect of hospital waste management**

Variables	Assessment Score
Existence of hospital waste management	100%
Trained hospital waste management personnel	84%
Hospital waste management duties in job description	56%
Training of Newly appointed staff	48%

The generator of waste is responsible for ensuring proper disposal. Hospitals are socially obliged to maintain a clean environment and dispose medical waste in order to prevent pollution and infection within and near the hospital. The hospital waste management plan outlines the interpretation of the legislation or a standard protocol to achieve essential elements for establishment of a proper hospital waste management system. In the current study it was found that only two hospitals had well documented waste management plans as well as proper waste management team. There is lack of awareness of the management regarding detailed laws and regulations governing health care waste management. This encourages reuse and unhygienic recycling of waste material.

**CONCLUSION**

If the overall goal of waste management is to prevent disease transmission from waste products, therefore the emphasis should be placed on the "Management" aspect of the process and not on the "technological fix" which is expensive diversion rather than an effective solution.

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