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Hospital Waste Management in Quetta City National Hospital (Private)

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Abstract:

This research observed the hospital waste management practices in national hospital of Quetta city. Hospital waste is not segregation into infectious hospital and non-infectious hospital waste. This study observe that they mixed hospital waste with municipal waste. In this hospital simple wheeled trolleys are used for on-site transportation of hospital waste and this waste stored in temporary storage area. Incineration is not used for the final disposal of hospital waste. Government vehicles are used to take the hospital waste on daily basis from the hospital to the dumping site. The study indicated that the

hospital does not have a procedure and good policy for the management of hospital waste. The owner of the hospital should facilitate the hospital with several funds to deal with hospital wastes and to maintain the clean environment of hospital. This data was collected through qualitative and quantitative methods and 7 departments were selected from national hospital. The total strength of respondent were 9 in which head of hospital, doctors, nurses and ward boys gives response from different departments. Common bins are used for the collection of waste and disposal of waste in hospital. According to research hospital waste needed proper hospital waste management and safe the health and environment.

Keywords: waste management, hospital waste, infectious waste, non-infectious waste.

INTRODUCTION

The equipment and materials which is generated during treatment and research techniques are called hazardous waste. Hospital wastes are distinct to include all different categories of wastes produced by health facilities such as general hospitals, dispensaries and health centers. (Silva, C. *et al*., 2005). Small amount of waste residues generated in a community and this residues transmit different diseases. Hospital wastes additional risk to the medical staff, doctors, ward boy, patients and other people who live near the hospital. (Baveja, G *et al*., 2000).

Due to improper disposal of hospital waste including open dumping and uncontrolled burning of hospital waste in open area which increases the risk of spreading infections and create environmental pollution. In developing countries, hospital wastes have not established sufficient attention to managing hospital waste but in many other countries, they still handled and disposed hazardous hospital waste together with domestic waste. (Abor, P *et al.,* 2008). This is because, it create very serious health problems to workers, and the people live in this area and environment. Environmental pollution mostly create due to incomplete combustion of hospital waste. Hospital waste must be segregated from municipal waste and used different bins for different categories of hospital waste. (Taru*, et al*., 2005).

Most of countries face different and transmitted diseases like AIDS, hepatitis B and C due to improper hospital waste management. This types of diseases spread by disposal of disposable syringes, needles and glasses. The World Health Organization has classify hospital waste into different categories. Hospital waste divided into infectious and non-infectious waste. Infectious waste are sharps, radioactive, pharmaceutical and pathological waste while non-infectious waste are garbage and general waste. (Ahmed, R. et al., 1997).The proper hospital waste management depends on numerous factors like funding, proper planning, commitment at policy level and administration. If it applied properly, they can leads better effects for both environment and individuals. Proper hospital waste management decrease the infectious diseases and clear the environment. (Amine, R. *et al.,* 2013).

Two methods are used in Pakistan to dispose-off hospital waste. First method is landfill, in which hospital waste is buried underground and second method is incineration, in which hospital waste is combusted. When hospital waste burnt different toxic gases and chemicals are release in air which can be probable carcinogen. Pakistan must create proper landfills and covered that area. Filtered incineration must be used for the burning of waste and polythene bags is used to protect ash from the reaction with soil when this bags dumped underground.

METHOD AND MATERIALS

This study was conducted in private hospital of Quetta city. This research study is based on the review of obtainable information on hospital waste, composition of hospital waste and techniques for hospital waste management. Segregation of waste, waste disposal, transportation of wastes and storage of hospital waste studied in national hospital of Quetta city. (Arshad, N. *et al.,* 2011).

The researcher complete visit every day to the hospital, taking note of how hospital waste is managed. Prepared regular visits to general hospital wards, surgical wards, childbearing wards, operating theatres and critical care ward. Recommended of world health organization for evaluation of management of hospital waste in developing countries. (Chartier, Y. *et al* 2014).

Questionnaires method were used to identify the waste quantity and quality of waste. This personal visit also observed the transportation of waste in site hospital and off-site hospital.

RESULTS AND DISCUSSION

A cross-sectional study was conducted in private hospital and the hospital were visited to note the management techniques in different departments of hospital. Various department produce different amount of waste on daily basis. National hospital generate 21kg waste per day and 147kg waste per week as shown in figure 1.

Hospital produce different types of waste and it must be segregated the infectious waste from non-infectious waste at source. In visited hospital, risk and non-risk waste are mixed together so proper waste management is required in hospital shown in figure 2.

Simple wheel trolley were used in the hospital for on-site transportation and off-site transportation shown in figure 3.

Common dustbins were used for the segregation of waste in this hospital. According to WHO different colored bins like yellow, red and black colored containers was practiced in hospitals as shown in figure 4.

Overuse of drips and injections is common in Quetta city of Pakistan. All disposal hospital waste must be cut or broken and reduced non-reusable at the point of use by the person in-charge. Needle cutter must use in hospital shown in figure 5.

Hospital employees must use gloves, mask, protective dress and employees also used long shoos. Vaccination of hospital employees is very important. It protects the employees against many infectious diseases like HBV as shown in figure 6.

Different categories of waste collected in different bins and needles, blades, glass bottles and other hazardous waste treated separately. On the other hand, all these infectious waste were collected in one bin shown in figure 7.

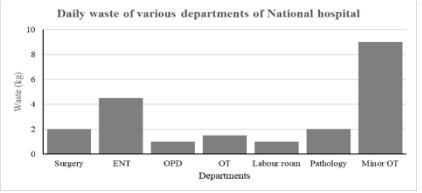

Figure 1. Hospital Waste National Hospital (Private)

Figure 2. Hospital Waste National Hospital (Private)

Figure 3 Hospital Waste National Hospital (Private)

Figure 4. Hospital Waste National Hospital (Private)

Figure 5. Hospital Waste National Hospital (Private)

Figure 6. Hospital Waste National Hospital (Private)

Figure 7 Hospital Waste National Hospital (Private)

CONCLUSION

This study analyzed that proper waste management is very important in both private hospital and government hospital. Government employees and medical staff needs for raising awareness about hospital waste management. Government should arrange the proper training programs for hospital staff and health professionals. Proper waste segregation is very necessary, infectious waste separated from non-infectious waste in different color of bags. The employees must be vaccinated and used gloves, mask and protective dress. Hospital waste should be transported in proper wheeled containers. They must be clearly marked the bins and regularly cleaned with chemicals. Leak-proof vehicles should be used for off-site transportation of hospital waste. Improper waste management has serious effects to medical staff, patients and public. Poor handling disturbed the ecosystem and also damaged the ozone layer. The hospital should develop the awareness and training programs for proper waste management.

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