

## Hospital Waste Management in Quetta Rahat Hospital (Private)

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### Abstract:

*This study was conducted to examine the production of hospital waste from Rahat hospital in Quetta city, Pakistan. Hospital waste is a main issue in a whole world. Hospital waste should be controlled by proper management, segregation, collection, disposal and transportation. I noted that the infected and non-infected wastes were collected at the same place in the hospital. Hospital did not provided the important protective equipment to the sweeper and they collected waste without using gloves and dress. Hospital waste is highly risky and it is the cause to many serious diseases. The Hospital must be aware of the*

*quantity of waste it produces and it should try to minimize the generation of hospital wastes. Hospital should follow the conditions and instructions of World Health Organization (WHO). Hospital waste quantity can be reduced by using "3R" formula i.e. Reduction, Reuse and Recycle. This data were collected through observation and questionnaire method. 8 departments were selected from Rahat hospital. The hospital were visited and 9 workers gives response from different departments about waste, these workers are head of hospital, doctors, nurses and ward boy. Staff must be trained and aware about the management of hospital waste. Therefore, awareness programs and training courses about hospital waste management will be carried out every month targeting smaller groups.*

**Keywords:** Hospital waste, Management, Training programs, Waste disposal.

## INTRODUCTION

The hospital Waste is defined as any waste generated during diagnosis, treatment or immunization, of human beings or animals. These waste also generated during research activity. (Pandey, A *et al.*, 2016). All persons who generates, store, transport and collection of medical waste must be follow the management rules 2016. Hospital waste generated from different institutes like hospitals, clinics, nursing homes, animal houses, blood banks, research laboratories, vaccination camps and first aid in schools or houses. (Bansal, R *et al.*, 2018).

According to WHO out of 100%, only 5% waste is hazardous or non-infective, 10% infective and 85% non-hazardous. Infectious waste management is a main contest to the hospitals. Infectious waste is highly effective and potential risk for health care community and ecosystem. This study indicate that most of the hospitals, clinics and nursing homes dispose of the waste in their areas due to lack of awareness and training programs. (Chartier, Y *et al.*, 2014).

Hospital waste treated through incineration and due to incineration of hospital waste create variety of health problems in Quetta city, Pakistan. Small and heavy particle released after the incineration of hospital waste and these particle distrusting the Bodies'

Hormonal, Reproductive system, Immune system and also cause cancer. (Abor, P *et al.*, 2008).

In Quetta city, hospital waste dumped illegally anywhere which affectation serious health risk to the public and atmosphere. Illegally dumping causes serious disease and polluted the environment. Needles, blades and pieces of broken glasses is very dangerous to the health of those people who handling hospital waste and children have been playing with hospital waste materials such as syringes. (Leonard, L. 2004).

Segregation of hospital waste is the process of separating different types of waste in isolated colored bins at the point of generation. Generation of hazardous waste will minimize through Recycling and resource recovery techniques. Hazardous and non-hazardous waste must be segregated from each other. (Thareja, P *et al.*, 2015).

Proper waste management is the responsibility of medical staff, doctors, nurses and ward boy. WHO recommended that the radioactive waste must be segregated from other hospital waste and used international hazard symbol on each container? Medical staff should be trained and aware about the segregation of various hospital waste. Proper handling of hospital waste gives clean environment and safe it from different disease.

## **RESEARCH METHOD**

This study was conducted in Rahat hospital of Quetta city, Pakistan. This research accepted a mixed-methods study and used semi-structured interviews to judge the awareness of hospital and non-hospital staff of waste types, risks, good practice, and anxieties about hospital waste management. Production of hospital waste were also observed in eight departments. The researcher complete visit every day to the hospital, to judge the proper segregation of waste, onsite transportation, use of personal protective equipment, onsite storage of solid waste, and disposal of compostable waste and chemicals. (Kwikiriza, S *et al.*, 2019). Questionnaire method were used to recognize the total quantity of hospital waste which is generated on daily basis and observed the different categories of hospital waste. This

study judge the awareness of medical staff and disposal or transportation of waste.

## **RESULT AND DISCUSSION**

This study observed that the Rahat hospital produce different types of waste and use simple trolley for the transportation of hospital waste. Various department of Rahat hospital generates different types of waste on daily basis. The site visit were very helpful in collecting data from each departments. Rahat hospital generates 22kg waste per day and 154kg waste per week as shown in figure 1.

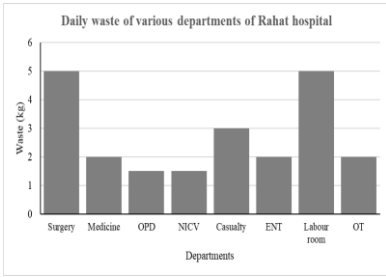
Hospital waste segregate in different categories in different containers. Risk and non-risk waste must be separated to each other while in this hospital general waste and hospital waste mixed together as shown in figure 2.

Waste management teams are responsible for better management and control disposal processes. Proper waste containers must be used and after every three hours containers should cleaned. Waste containers should not be overfilled with disposal wastes as shown in figure 3.

All disposal waste including drips, syringes, needles and plastic bottles should be broken and cut off by using needle cuter or scissor i.e. it could not be reused at the site of generation shown in figure 4.

Infectious waste are blood, urine, vomit, pus, saliva and mucus. Infectious microorganism in blood spread dangerous diseases that is why blood is biohazard. Body fluids must be cleaned at the site of generation as shown in figure 5.

Hospitals should follow the rules of WHO and used different colored containers for the collection of different hospital waste. This study conducting that the hospital used three color of bins i.e. Red, Yellow and Blue but all infectious or non-infectious waste collecting together as shown in figure 6 and 7.



**Figure 1. Hospital waste Rahat Hospital**



**Figure 2. Hospital waste Rahat Hospital**



**Figure 3. Hospital waste Rahat Hospital**



**Figure 4. Hospital waste Rahat Hospital**



**Figure 5. Hospital waste Rahat Hospital**



**Figure 6. Hospital waste Rahat Hospital**



**Figure 7. Hospital waste Rahat Hospital**

## **CONCLUSION**

All government and private hospitals in Pakistan need proper training program about the management of hospital waste. A vehicle labeled with Bio-hazard symbol transports these color coded bags from the storage site to the legal treatment and disposal facility near the hospital sites. Lack-proof vehicle must be used for transportation of hospital waste carefully. Colored containers used for different categories of wastes and staff used protective equipment. Staff incharge of the hospital waste do not have any qualification in hospital waste management. This study shown that training were not providing to doctors, nurses and other employees about hospital waste management and their hazards effects on health.

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