

# KNOWLEDGE REGARDING BIO-MEDICAL WASTE & IT'S MANAGEMENT

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**ABSTRACT:** *The biomedical waste [management & handling] rules,1998 gives a wider definition of biomedical waste, covers different sources generation of biomedical & includes different types of biomedical waste. Biomedical waste management & handling rules 1998 of India provide different waste categories like human anatomical waste, animal waste,microbiological & biotechnology waste, waste sharps, discarded medicine etc. The quantity of biomedical waste generated per bed per day will vary depending upon the type of health problems, the type of care provided & the hospital waste management practices. It is estimated that the hospital in India generates around 1-2 kg/bed/day of biomedical waste in a general practitioner's clinic. Approximately 75% of biomedical waste is as harmless as other municipal waste, the remaining 25% however differ from others.*

**Key Words:** Bio-medical waste, Bio-medical waste management, Class IV workers

## INTRODUCTION

Hospital or health care waste is generally named & popular as biomedical waste. The world health organization defines biomedical waste as ,”Waste generation by health care activities & includes blood, used needles, pharmaceuticals, radioactive materials etc.” The biomedical waste is also known as infectious waste or medical waste or health care waste. According to biomedical waste management & handling rules 1998 of India. Biomedical waste means any waste which is generated during the diagnosis, treatment or immunization of human being or animals or in research activities. In simple words biomedical waste is the waste generated by the medical & health institute/agencies. Biomedical waste management defines waste management as the practices & procedures or the administration of activities that provide for the collection, source separation, storage, transportation, transfer, processing, treatment & disposal of waste . Biomedical waste management is a routine procedure of hospital administration as prescribed by law .Hospital waste , hospital acquired infection , transfusion transmitted diseases, rising incidence of hepatitis B, HIV & Other diseases, create potential threat of infection, contamination & serious health hazards to doctors, nurses, ward boys, support staff, sanitation workers, rag pickers & other health care workers. Who are regularly exposed to biomedical waste as an occupation hazards as well as general public in the surrounding area .

## NEED OF THE STUDY.

The establishment of large hospitals where hundreds to thousands of patients are treated , it has created a serious problems of biomedical waste management. The seriousness of improper biomedical waste management was brought to the light during summer 1998. In India studies have been carried out at local / regional levels in various hospitals, indicate that roughly about 1-5 kg/bed/day to waste is generated. Among all health care personnel ,ward boys , sweepers, operation theatre & laboratory attendants have come into contact with biomedical waste during the process of segregation , collection, transport, storage & final disposal . The knowledge of medical , paramedical staff & ward boys , sweepers about the biomedical waste management is important to improve the biomedical waste management practices. The biomedical waste requiring special attention includes those that are potentially infectious , sharps ,example needle , scalpels , objects capable of puncturing the skin , also plastic ,pharmaceutical & chemically hazardous substances used in laboratories etc.

## OBJECTIVE OF THE STUDY

1. To assess the existing level of knowledge regarding bio-medical waste & its management among the class IV workers(group D) .
2. To find out the association of the knowledge regarding biomedical waste & its management among class IV workers(group D) with selected demographic variables.

**HYPOTHESIS**

**H1:** There will be significant association between the knowledge regarding biomedical waste & its management among class IV workers (group D) with their selected demographical variables

**RESEARCH METHODOLOGY**

The finding of the study was organized and presented in the following section:

Part-I : Characteristics of samples

Part-II: The association between level of knowledge scores with the selected demographic variables.

**Table: 1 Distribution of class IV workers according to the demographic variables N =100**

Demographic Variable	Frequency	Percentage (%)
<b>Age in years</b>		
18-30	26	26.00 %
30-40	20	20.00 %
40-50	31	31.00 %
50-60	23	23.00 %
<b>Gender</b>		
Male	62	62.00 %
Female	38	38.00 %
<b>Educational status:</b>		
Middle school	32	32.00 %
Secondary school	45	45.00 %
Higher secondary	15	15.00 %
Graduate & above	08	08.00 %
<b>Attend any programme on biomedical waste management</b>		
Yes	38	38.00 %
No	62	62.00 %
<b>Working experience</b>		
0-1 years	15	15.00 %
1-5 years	25	25.00 %
5-10 years	34	34.00 %
10 & above	26	26.00 %

The Association of level of knowledge score with selected demographic variables was found out by calculating chi-square ( $\chi^2$ )

**Table : 2 Association of knowledge score with demographic variable**

Sr. No.	Demographic Variable	Df	Tabulated Value	Calculated Value	Significant / Not significant
1	Age in years	9 df	16.92	19.34	Not significant
2	Gender	3 df	07.81	11.56	Not significant
3	Educational status:	9 df	16.92	13.96	Significant
4	Attend any programme on biomedical waste management	3 df	07.81	2.44	Significant
5	Working experience	9 df	16.92	06.30	Significant

Table: 2 show that the chi square value obtained to find the not association between the knowledge of class IV workers (group D) with Age in years ( $\chi^2=19.34$ ) and Gender ( $\chi^2=11.56$ ) The chi square value obtained to find the association between the knowledge of class IV workers (group D) with Educational status ( $\chi^2=13.96$ ), Attend any programme on biomedical waste management ( $\chi^2=2.44$ ) and Working experience ( $\chi^2=6.30$ ). The finding revealed that some selected demographic variable like Age in years & Gender are not significant and others like Educational status, Attend any programme on biomedical waste management & Working experience is significant at the 0.05 level of significant.

**CONCLUSION**

The main reason for high spread of infection, diseases in India is that many health care workers are not aware of the measures that are available to prevent diseases in biomedical waste management as well as basic information in self care during waste management. Many do not receive timely help because of either they are unaware of the help available or help is not within the reasonable distance.

Biomedical wastes are one of the major causes of infection in the hospital settings. So it's the responsibility of the hospital authority along with the health team to collect, segregation, transport & store & disposal it off to safeguard the people from hospital acquired infection. Today, nurses and other health care workers have an important role in health promotion, bring the health care manufacturers. The management nurse is posed to a unique function of identifying and providing huge standard of biomedical waste management that contributes to the maintenance of good health and minimize the severity of the disease.

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