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BIOMEDICAL WASTE GENERATION AND WAYS TO MANAGE AT DIFFERENT LOCATIONS IN FAIZABAD

Dr. Subhadra Rajpoot[1] , Santwana shahi[2],Sandhya singhania[3]

[1,2,3]*Amity University Greater Noida (India)*

ABSTRACT

Medicinal waste has as of late turned into an issue of much open worry, due in parts of its extending mass and unfavorable consequences for human wellbeing. Quick improvement in medicinal innovation the multiplications of transfer supplies and expanded bundling have added to immense extensions in the volume of therapeutic waste created. The transfer of biomedical waste has turned into an issue of developing worry because of its potential natural risks. The study demonstrates that the rate of biomedical waste age and administration works on applying by doctor's facilities. These practices incorporates incinerator office was accessible at just a single private nursing home. Appropriate gathering, treatment and transfer locales did not exist at Faizabad. The waste transfer hone was observed to be very dangerous and both clinical and non-clinical squanders were observed to be arranged off with no isolation. The therapeutic staff and different specialists have detailed diverse kind of sickness, for example, Diarrhea, hepatitis B/C amid study.

I.INTRODUCTION

Medicinal waste is characterized as any strong or fluid waste that is created in the conclusion, treatment or inoculation of people or creatures, in investigate relating there to, or in the generation of testing of natural (BAN and HCWH, 1999). Medicinal waste created by healing centers facilities, research and testing labs and medication organizations are regularly unpredictably arranged off, informal administration of such squanders,

prompts genuine natural issues The issues are as of now intense in metropolitan urban areas and towns as the transfer offices are not keeping pace with the quantum of waste being produced. These biomedical squanders incorporates, surgical and neurotic waste, expendable syringes, infusion needles, squander from clinical and microbiological research facilities, tolerant care squander disposed of chemicals and medications disposed of radioactive chemicals and waste *from dialysis units (Nanda and Tiwari, 2000). The present unsanitary technique received for transfer of therapeutic waste turns out to be intense wellbeing danger especially amid blustery season, spillover and high muggy conditions builds the wellbeing peril. The landfills locales that are not very much kept up are inclined to groundwater pollution because of drain ate permeation. Open dumping of medicinal waste is the extra wellspring of rearing ground for illness vector.*

It is likewise conceivable that numerous expendable therapeutic adornments, (for example, saline containers, utilized wraps, surgical gloves, blood sack, catheters and intravenous tubes) are frequently gathered by cloth pickers, washed repacked and exchanged to clients through deceitful restorative stores. Since such things are once in a while cleaned before being exchanged they may taint to sound people with destructive illness like T.B, hepatitis B, AIDS and so on. (Nanda and Tiwari, 2000).

II.MATERIAL AND METHODS

Faizabad District is one among 71 Districts of Uttar Pradesh State ,India. Faizabad District Administrative head quarter is Faizabad. It is Located 140 KM west towards State capital Lucknow . Faizabad District populace is 2468371. It is 40 th Largest District in the State by populace. Faizabad locale is an imperative and religious city of Hindu's.. The present review was led in the period of December-January 2014-15. There are 22 Clinics, 35 doctor's facilities and 9 X-beam pathology (Registered) in Faizabad areas, which creates strong and Biomedical waste enormously. The day by day age of Biomedical waste in the Faizabad locale for 8 noteworthy Hospitals were controlled by gathering and measuring the aggregate day by day squander age on one week of December 10. – January11 and after that finding the normal esteems (adjusted the closest kg) for every clinic.

Children Hospital
Asheerwad Hospital
Sunyan eye hospital
Ayodhya Eye Hospital
Shakti Hospital
Jagat Hospital
Deva Memorial Hospital
Shri Ram hospital

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III.GENERATION OF BIOMEDICAL WASTE

Doctor's facility Words – Hospitals are among the biggest generators of strong waste today on a for each capita premise. A great part of the loss from doctor's facility wards originates from the wastebaskets along the edge of patient overnight boardinghouses old daily papers, paper and polythene sacks, bundling and organic product peels. Furthermore broken syringes disposed of supports, veils, elastic gloves and broken glass ampoules and so on produced by routine restorative exercises additionally add to the day by day squander age. As of late, there has been an expanding pattern towards the utilization of dispensable items or single reason restorative things, which may now represents one-half or a greater amount of the aggregate biomedical waste created. The waste age rate can change extensively from healing facility to clinic.

Bio

IV.MEDICAL WASTE CONSISTS OF

Human anatomical waste like tissues, organs and body parts

Animal wastes generated during research from veterinary hospitals

Microbiology and biotechnology wastes

Waste sharps like hypodermic needles, syringes, scalpels and broken glass

Discarded medicines and cytotoxic drugs

Soiled waste such as dressing, bandages, plaster casts, material contaminated with blood, tubes and catheters

Liquid waste from any of the infected areas

Incineration ash and other chemical wastes

The BMW are classified in to different categories according to rule 1998 which is tabulated below:

SCHEDULE-II RULE 1998

COLOR CODE	TYPE OF CONTAINER	WASTE CATEGORY	TREATMENT OPTIONS
Yellow	Plastic bags	1, 2, 3 and 6	Incineration/deep burial
Red	Disinfected container/plastic bag	3, 6 & 7	Autoclaving/Micro Waving/Chemical treatment
Blue/white transparent	Plastic bags/puncture proof container	4 & 7	Autoclaving/Micro waving/chemical treatment, Destruction & shredding
Black	Plastic bag	5, & 9, AND 10 (SOLID)	Disposal in secured land fills

V.PATHOLOGICAL LABORATORIES

Waste generated in pathological laboratories is considered to be infectious. biomedical waste from pathological laboratories contains a very high percentage of plastics (ranging from 50% to 60%). The remaining waste is mostly composed of wet materials such as body fluids, blood, used diagnostic

VI.RESULT AND DISCUSSION

The result of the survey are shown in Table 1(A, B), 2, 5 and 6. The numbers of beds in different hospitals are shown in table 5. The total numbers of beds are 502, which generates the 502 Kg/day of biomedical waste. There are 22 clinics 35 hospitals and 9 X- ray/Pathology (Registered) in Faizabad city (Table 1,B). The registered practitioner in Faizabad district is represented in table 1 A. The minimum, maximum and average values of the generation of biomedical waste are represented in table 6. In table 2 presented the disease suffering for long time % of the positive case only which shows different type of disease found in hospital staff and waste pickers. The result shown in table 6 indicates that the cleaners are highly affected by biomedical waste. It is noted that from table 6 that the min, max, and average rate generation of biomedical waste is 0.7, 2.27 and 1.22kg/bed/day, respectively. Similar observation was reported by Accarino, et. al.,(2000), Collins and Kennedy (1992) and Poulsen, et al., (1995). It may be noted that the waste generation rates obtained by the present authors for different hospitals of Faizabad city are similar to those reported in the literature for other Indian hospitals for example Pruss, et al., (1999) have reported 1.0 to 1.4

TABLE –1(A) Registered Practitioner in Faizabad district (year 2010).

S.No	Practitioner	No.
1.	Bachelor of homeopathic medicine surgery	216
2.	Ayurvedic	270
3.	Bachelor of unani medicine surgery	188
4.	Bachelor of medicine and bachelor of surgery	100
5.	Pathology/X-ray	45

Table 1 (B) Clinics, Hospitals, X-ray Pathology in Faizabad city

S.NO.	Practitioner/ Pathology	No. Of Hospitals/ Pathology/Clinics
1.	Clinics	22
2.	Hospitals	35
3.	x-ray/ Pathology	9

Table 6- Summary of results on the generation rates of biomedical waste (No. of samples taken twice daily) of Faziabad District

S.NO.	Minimum	Maximum	Average
1.	0.65	2.27	1.22
2.	0.6	2.21	0.94

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