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WASTE MANAGEMENT IN HOSPITAL: A STUDY

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ABSTRACT

Population growth has improved the quantum of waste generation , prompting decline in the nature of environment and open wellbeing. Expanding the measure of solid waste generation, particularly Municipal Solid Waste(MSW), is a matter of genuine concern, particularly in urban regions and this issue has compound because of the disgraceful transfer plans. Urban Local Bodies ought to be in charge of fitting solid waste accumulation and disposal methods. An old colloquialism says “Cleanliness is by Godliness”. The substance of this was apropos caught by Dravidians, who in 5000 BC gave due accentuation to faultless town, arranging and protected and compelling sewerage frameworks who disposed of all robust and fluid squanders produced by the contamination. They were surely the pioneers the extent that investigative waste administration is concerned; which is borne out from unearthing of Mohanjedora and Harapa. The cutting edge healing facility and medicinal services establishment including exploration focuses utilize a wide mixed bag of medications including anti-microbials, cytotoxics, destructive chemicals, radioactive substance, which eventually get to be some piece of clinic waste. The appearance of disposables in the healing center has gotten its wake, chaperon, ills i.e. unseemly reusing, unapproved and unlawful re-utilize and expand as a part of the quantum of waste. All round innovative advancement has lead to expanded accessibility of wellbeing related shopper merchandise, which have the penchant for creation of expanded squanders.

KEY WORDS: Bio-Medical Waste, Pathological Waste, Infectious Waste, Radioactive Waste, Pressurized Waste.

INTRODUCTION

The issue of uncalled for Hospital Waste administration in India was initially highlighted in a writ appeal to in the Hon'ble Supreme Court; and accordingly, as per the orders of the court, the Ministry of Environment and Forests, Govt. of India told the Bio-Medical Waste (Management and Handlings) Rules on 27th July 98; under the procurements of Environment Act 1986. These standards have been confined to control the transfer of different classifications of Bio-Medical Waste as conceived in that; in order to guarantee the wellbeing of the staff, patients, open and nature's turf.

NEED FOR BIO MEDICAL WASTE MANAGEMENT

Legal Obligation: In accordance with the provisions of the Bio-Medical waste (management and Handling) Rules 1998, deadline for GMC was 31st December' 1999, by which the rules must be conformed with, failing which legal action can be initiated.

Health hazards associated with improper hospital waste management:

A number of hazards and risk are associated with this viz.

- ⊕ Injuries from sharps to all categories of hospital personnel and waste handlers.
- ⊕ Nosocomial infections in patients from poor infection control and poor waste management.
- ⊕ Risks of infections outside hospital for waste handlers, scavengers, and (eventually) the general public.
- ⊕ Risks associated with hazardous chemicals, drugs, being handled by person handling wastes at all levels.

Environment hazards: Improper hospital waste management also result in air, water and soil pollution, especially due to imperfect treatment and faulty disposal methods.

PROBLEMS RELATING TO BIOMEDICAL WASTE

A significant issue identified with current Bio-Medical waste administration in numerous doctor's facilities is that the usage of Bio-Waste regulation is unsuitable as a few healing centers are discarding waste in an indiscriminate, despicable and aimless way. Absence of isolation practices, brings about blending of clinic squanders with general waste making the entire waste stream unsafe. Wrong isolation at last brings about an inaccurate strategy for waste transfer.

Deficient Bio-Medical waste administration in this way will result in ecological contamination, disagreeable emanation, development and increase of vectors like bugs, rodents and worms and may prompt the transmission of sicknesses like typhoid, cholera, hepatitis and AIDS through wounds from syringes and needles tainted with human.

Different transferrable ailments, which spread through water, blood, body liquids and polluted organs, are vital to be forestalled. The Bio Medical Waste scattered in and around the healing facilities welcomes flies, creepy crawlies, rodents, felines and canines that are in charge of the spread of correspondence malady like sickness and rabies. Cloth pickers in the clinic, dealing with the junk are at a danger of getting tetanus and HIV diseases. The reusing of disposable syringes, needles, IV sets and other article like glass containers without fitting disinfection are in charge of Hepatitis, HIV, and other viral maladies. It gets to be essential obligation of Health chairmen to oversee doctor's facility squander in most sheltered and eco-accommodating way.

The issue of bio-medicinal waste transfer in the healing facilities and other health awareness foundations has turned into

an issue of expanding concern, inciting clinic organization to look for better approaches for investigative, safe and financially savvy administration of the waste, and keeping their staff educated about the advances around there. The need of fitting healing center waste administration framework is of prime imperativeness and is a key part of value certification in doctor's facilities.

HOSPITAL WASTE MANAGEMENT COMMITTEE

A Hospital Waste Management Committee has been created in each of the related healing center with a perspective to enhance and streamline Hospital Waste administration and for fitting execution of Bio-Medical Waste Management Rules' 98, under the chairmanship of the Medical Superintendents it is a wide based board of trustees with delegate from clinic organization, clinical offices. Pathology and microbiology divisions and has forces to assume all matters identified with Bio-Medical Waste Management in the particular clinics. This littler center gathering is in charge of usage of these tenets. The obligations of the different classes of the staff included in the era, accumulation, transportation, gathering, treatment and transfer of squanders is planned and executed by this council.

Functions of Hospital Waste Management and Committee:-

- To ensure the circulation of enough copies of Bio-Medical Waste rules and Guidelines for implementation of the same in Clinical Departments. The responsibilities of the individual professionals will be highlighted in these guidelines.
- To conduct "Awareness Programme". Clinical combined/grand round will be held for making the Faculty and the

Residents aware of the "Biomedical Waste (management & Handling) rules' 98."

- To conduct training programmes for Medical Professional, nursing Professionals and Sanitation Professionals.
- To hold meeting of the Hospital Waste management committee and formulate the detailed plan of action in regard to segregation, collection, storage and transport of waste from all the patient care areas. To procure the items required in this regard and make them available in all patient care areas.
- Each Clinical Department (Unit), Lab Services, Blood Bank, Microbiology, Pathology will make one faculty members responsible of segregation in their area of activities.

Training on Hospital Waste Management:-

Keeping in mind the end goal to have the capacity to appreciate and execute the Bio-Medical Waste (Management and Handling) Rules' 1998, it is compulsory to give preparing to all classifications of staff i.e. occupant specialists, medical attendants, paramedical staff, healing center and sanitation chaperons, tolerant and their orderlies, container staff, operation of Bio-medicinal Waste treatment offices. Prior to the preparation is completed the preparation needs to be recognized substance fluctuated appropriately. It ought to be intelligent and ought to incorporate mindfulness sessions, exhibition and behavioral science inputs. It ought to unquestionably incorporate the accompanying:

- ✧ awareness of distinctive classifications of waste and potential danger
- ✧ waste minimization, diminishment being used of disposables

- ✧ segregation arrangement
- ✧ proper and safe treatment of sharp
- ✧ use of defensive apparatus
- ✧ colour coding of compartments
- ✧ appropriate treatment of waste
- ✧ management of spills and mischances
- ✧ occupational wellbeing

In all examined government health awareness offices and a large portion of the non-government social insurance offices (Hcfs), numerous types of squanders were transported to the transitory stockpiling or dustbin outside healing center premises utilizing trolleys or “balti” or plastic canisters or enormous dishes (for little sum) without any cleansing. Lasting or transitory/regular routine sweepers or cleaners or “ayas” or ward young men were generally performing the inside waste transportation exercises. A few Ngos were discovered completing the occupation of biomedical waste isolation, sterilization and gathering exercises in some private Hcfs. If there should arise an occurrence of outside (e.g. off-site) transportation, different types of biomedical squanders were gathered from the civil dustbins and city skirts and transported to metropolitan dumping site by city organization or city power with unprotected open track spreading awful ordour and making open irritation. In tertiary clinic, just 27% cases, treatment for irresistible and sharp squanders was discovered to be carried out. Just around 11% healing centers were discovered utilizing “incinerator” for irresistible waste medicines and 10% utilized needle cutter for ‘cut or breaking’ of sharp and around 16% were discovered utilizing sanitization forms as a part of diverse routes for recyclable squanders before last transfer.

More than 50% of the doctor’s facility were to handle irresistible waste in exposed hands, around one third were utilized to handle

irresistible squanders utilizing gloves, veils and other defensive measures in extraordinary cases and just 18% of the HCFS appeared for utilization gloves and covers dependably. In the event of sharp gears, around three fourth of the Hcfs were found to have taken care of it by stripped hands, stand out clinic reported utilizing gloves and covers as a part of exceptional cases and just 16% HCFs were found using gloves and masks always as protective measures.

RECOMMENDATIONS

- ✧ For the use of incinerator Training should be given to some number of persons from staff.
- ✧ Specific funds should be allocated for the use of incinerator.
- ✧ Every hospital should have special boxes to use as dustbin for bio-medical waste.
- ✧ Bio-medical waste should not be mixed with other waste of Municipal Corporation.
- ✧ Private hospitals should also be allowed to use incinerator, which is installed, in govt. hospital. For this purpose a specific fee can be charged from private hospitals.
- ✧ Special vehicle i.e. bio-medical waste vehicle should be started to collect waste from private hospitals and private medical clinics and carry it up to the main incinerator.
- ✧ As provided by bio-medical waste rules, the whole of the waste should be fragmented into colours due to their hazardous nature.
- ✧ Bio-medical waste Management Board can be established in each District.
- ✧ Either judicial powers should be given to the management board or special court should be established in the

matters of environment pollution for imposing fines and awarding damages etc.

- ↳ Housekeeping staff wear protective devices such as gloves, face masks, gowned, while handling the waste.
- ↳ There is biomedical waste label on waste carry bags and waste carry trolley and also poster has put on the wall adjacent to the bins (waste) giving details about the type of waste that has to dispose in the baggage as per biomedical waste management rule. Carry bags also have the biohazard symbol on them.

CONCLUSION

Therapeutic squanders ought to be grouped as per their source, typology and danger elements connected with their taking care of, capacity and extreme transfer. The isolation of waste at source is the key step and diminishment, reuse and reusing ought to be considered in fitting viewpoints. We have to consider inventive and radical measures to clean up the upsetting picture of absence of city concern from doctor's facilities and slackness in government execution of absolute minimum of guidelines, as waste era especially biomedical waste forces expanding immediate and backhanded expenses on society. The test before us, hence, is to logically oversee developing amounts of biomedical waste that go past practices. In the event that we need to ensure our surroundings and soundness of group we must sharpen our selves to this essential issue in light of a legitimate concern for wellbeing directors as well as in light of a legitimate concern for group. Healing facility and other social insurance and exploration organizations are technique substantial amounts of unsafe squanders. Much of the time, waste taking care of is left to the inadequately instructed and least class of laborer having no

preparation and least direction and supervision. Thus, it is the ordinary situation that risky waste blends with non-perilous metropolitan strong squanders and get kept untreated in the street side civil dustbin or inside or inside the premises of the health awareness organizations leaving genuine wellbeing danger to the individual and dangers to nature. In actuality, the circumstances gets most exceedingly terrible by essentially putting away it to dustbin, empties, channels or at long last dumping to the edge of the city without fitting isolation. Just few healing center attained some practice of contaminated waste isolation. It is perhaps because of absence of mindfulness and aptitude of the individuals occupied with waste taking care of and clinic administration. The issue is exacerbating with the quickly developing healing centers, facilities, diagnostics focuses, labs, and nursing homes without legitimate arranging.

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