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Assessing Clinical Waste Management Performance in a Health Care Organisation

Victor Hrymak

Dublin Institute of Technology, vhrymak@dit.ie

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Assessing clinical waste management performance in a health care organisation

The pathogenic hazards associated with accidental exposure to clinical waste are well known to risk professionals ¹. They include Hepatitis A, B, and C, HIV, Viral gastroenteritis, Shigellosis and Salmonellosis. Persons at risk of accidental exposure to clinical risk within the health care sector are varied and include Doctors, Nurses, Care Attendants, Housekeeping staff, Maintenance personnel, Contractors, patients & visitors.

Hence the correct handling storage and disposal of clinical waste management has a high profile within the health care sector. Health care risk professionals spend a great deal of time ensuring the hazards from clinical waste are in the first instance eliminated where possible, and then prevented and controlled.

As part of its pro-active environmental health and safety management program, the health care organisation involved in this study, decided to assess its clinical waste management performance within a large health care premises.

The aim of this study was to assess the existing level of control over clinical waste in order to benchmark its performance and subsequently reduce the risks from accidental exposure.

The first step in this study was to formulate a methodology which the researchers could use to assess clinical waste management performance within the organization.

The method chosen was an observational study of handling and storage practices in six areas of the health care premises which produced clinical waste on a daily basis. To produce relevant data the researcher devised an observational protocol against which to judge correct procedure.

This protocol was based on the following documents: The Department of Health and Children's publication on Healthcare risk waste ². The Safety, Health & Welfare at Work (Biological Agents) Regulations 1994 & 1998 ³. The Healthcare Technical Memorandum 2065 ⁴

The researchers selected those practices specified in the above documents, that could be observed and recorded during a survey.

As a result twenty three items were selected for the study and recorded each time during the survey. With the exception of the first four below, each item was answered with a yes or no response. Those items were:

- Day:
- Time:
- Premises area: floor area or room
- Exact Location:
- Is the clinical waste bin located in an appropriate area

- Is the domestic waste bin located in an appropriate area
- Is the appropriate bag in the clinical waste bin
- Is the appropriate bag in the domestic waste bin
- Is the segregation of clinical waste bins correct
- Are clinical waste bags less than 2/3 full .
- Is the segregation of domestic waste correct
- Are domestic waste bags less than 2/3 full
- Are labels present on the bins
- Are the lids on the bins closed on inspection
- Is there suitable access to both waste bins
- Are the contents of the sharps bin correct by observation
- Are the sharps bin located in a safe area
- Are the sharps bins less than ¾ full
- Are waste bags for collection securely tied & tagged
- Are Sharps bins closed appropriately & tagged
- Are waste bags & sharps bins stored safely
- Are gloves present & readily available
- Is antiseptic hand wash readily available at all wash hand basins and sinks

The researcher visited six separate areas of the health care premises where clinical waste was produced and stored. These six areas were surveyed at least three times a week from Monday to Saturday for a period of four months. The time of the survey varied from 7.00 am till 9.00 pm. In total two hundred and forty five surveys were carried out.

The results generated showed that average compliance levels with correct handling and storage procedures for clinical waste varied throughout the premises. Across all twenty three items listed above the average level of compliance varied from 32%- 85%. Compliance also varied with the location of the clinical waste storage area and the time of day.

Average rates of compliance varied from 32% to 100%. The highest level of compliance was found with appropriate location of domestic waste receptacles and clinical waste receptacles. The average compliance level with appropriate domestic waste receptacle location was 100%. The average compliance level with appropriate clinical waste receptacle location was 85%.

The average rate of compliance with the adequate segregation of clinical waste from domestic waste was within the receptacle was 52%. The main problem here was the use of clinical waste receptacles for domestic waste. The most common non clinical waste products found in clinical waste receptacles were plastic bags, newspapers, flowers, and paper hand towels.

During the survey period, no domestic waste receptacles were found to contain clinical waste material.

An aspect with a low level of compliance was found with the practice of leaving lids on bins down. Here only 53% of bin lids were found to be down during the survey.

The lowest level of compliance was found with unobstructed access to waste receptacles. Here the average compliance rate was as low as 32%. The main problem here was storage of other items such as equipment trolleys and uncollected clinical bags obstructing access to the receptacle.

As well as compliance varying with the item being observed, some areas of the health care premises performed better in terms of handling and storage clinical waste than others. This could have reflected local management culture, better storage facilities, better enforcement of the rules or a combination of these factors

An unexpected finding of the study was that some shifts were better at handling and storage clinical waste than others. Here the result was that clinical waste storage was better during certain times of the day.

On a wider management issue, this methodology can also be used as part of an organisations safety management system when assessing its clinical waste obligations. It can provide a benchmark measure from which the health care organization can maintain clinical waste standards.

Shortly after presenting the results of this study to the health care organisation involved, a new training programme together with redefined and standardized clinical waste procedures were introduced and targeted at the least efficient clinical waste management practices.

The methodology outlined in this study has already been reapplied to measure the effectiveness of this programme and significant improvements have now been noted as a result.

Plans are now being drawn up to introduce the methodology in other health care premises under the responsibility of the health care provider. In this way all premises dealing clinical waste can be assessed and ranked in order to prioritise clinical waste management initiatives.

References

¹ Infection at work: controlling the risks. Advisory Committee on Dangerous Pathogens HSE Books 2003.

² Department of Health & Children, 2004 , Segregation Packaging & Storage Guidelines for Healthcare Risk waste.

³ The Safety, Health & Welfare at Work (Biological Agents) Regulations 1994 & 1998

⁴ NHS Estates, (1997) Healthcare Waste Management, Health Technical Memorandum (HTM 2065) pp 48-52

The authors

Victor Hrymak, B.Sc. M.Sc. MCIEH MIOSH MIFE RSP lectures in Environmental Health and Safety at the Dublin Institute of Technology.

Karen McKiernan BSc M.Sc. is a Hospital Risk Manager and a graduate of the MSc Environmental Health Risk Management course at the Dublin Institute of Technology.