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Sharp waste management in rural clinics in Swaziland

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DECLARATION

I, Glen rose Malinger declare that this research report was my own work. It was being submitted in the partial fulfillment of the requirements for the degree of Master of Public Health at the University of the Witwatersrand, Johannesburg. It had not been submitted before for any degree or examination at this or any other University.

……

DATE

DEDICATION TO:

M**y** late husband**, MR TIMOTHY MALINGA**,

My mother, **PATIENCE HLATSHWAYO** and my three children **WENKOSI, WEMAVE and TENKOSI MALINGA.**

It is because of you that I am what I am

THANK *YOU*

ABSTRACT

INTRODUCTION: Poor management of health-care waste can cause serious disease to health-care personnel, waste workers, patients and the general public. The greatest risk is posed by infectious waste. Through the observation of the researcher, the management of sharp waste in rural clinics in Swaziland seemed to be poor because waste was often seen scattered around the clinics. This motivated the researcher to scrutinize the reason behind the situation in clinics.

AIMS OF THE STUDY: The aim of the study was to evaluate the management of sharp waste in 35 rural clinics in Swaziland.

OBJECTIVES OF THE STUDY

a) To assess the degree to which resources are available to enable staff to adhere to procedures regarding the segregation, storage, transportation and treatment of sharp waste in rural clinics in Swaziland.

b) To determine if relevant documents to address the management of sharp waste in rural clinics are available and accessible.

c) To determine perceptions of clinic managers for failures to comply fully with sharp waste management standards.

MATERIALS AND METHODS: The study design was a cross-sectional descriptive survey. Methods of data acquisition were by acquiring observation checklist and interviewing clinic managers on sharp waste management practices in their clinics.

The researcher sampled 35 clinics. A convenience sample method was used.

RESULTS:

NATIONALLY

Ninety four percent (94%) of the sampled clinics had sharp waste containers to segregate sharp waste properly. Sixty five percent (65%) had punctured proof containers. Eighty percent (80%) had sharp waste containers. Eighty six percentage (86%) sealed sharp waste at ¾ full. Twenty percentage (20%) did not have storage areas for sharp waste. Only one (3%) had a waste trolley. There was availability of protective clothing for all health personnel. Seventy seven percentage (77%) clinics did not have full protective clothing for waste handlers. Fifty one percent (51%) did not have risk waste pit/incinerator. Most of the clinics in the four regions did not have the Waste Regulation 2000, Health Care Waste Management plan document or the National Health Care Waste Guidelines. Twenty nine percent (29%) had done trainings on health care waste management.

REGIONALLY

Almost all the clinics had 100% compliance in the availability of sharp waste containers for segregating health care waste except the Lubombo region that had 78% compliance.

There was no 100% compliance in all the regions on the availability of puncture proof containers. The Shiselweni region had a very poor compliance as compared to other regions.

It was observed that not all clinics sealed their containers when ¾ full. The Shiselweni region had lower compliance by 78% and Hhohho region had the highest compliancy of 100%.

There was poor availability of storage areas. All the regions were less than 50% compliance in the provision of the storage area. Shiselweni region was the only region that was above 50% compliancy.

There was very poor availability of transportation waste trolleys. Only one clinic in Shiselweni region had transportation waste trolley.

There was 100% compliance in the availability of protective clothing for health personnel.

There was poor availability of protective clothing for waste handlers. Shiselweni region was

the only region that was above 50% compliance, the rest had a very low compliance.

There was poor availability of risk waste pit/incinerator in Hhohho and Manzini region. Their compliance was less than 50%. Shiselweni andLubombo region were above 50% compliance.

Availability of legislation was very poor in regions. The Hhohho and Manzini were the worst regions in terms of compliancy. They had 0% compliancy. The Lubombo region had the highest compliancy of 33% and this was very low since it was below 50%.

INTERVIEWS

Eighty six percent (86%) clinic managers revealed that there was poor availability of resources in their clinics and that was why their clinics were not complying.

Eighty six percent (86%) of clinic managers recommended that there should be availability of resources; few recommended that there should be availability of protective clothing for the waste handlers and regulations.

Seventy one percent (71%) clinic managers needed technical support on incinerators/risk waste pit, Twenty percent (20%) need supported on trainings of health care waste.

CONCLUSION: There was poor availability of resources and there were poor relevant documents to address the management of sharp waste containers in most clinics. All clinic managers during their interviews felt that they needed close supervision and technical support from their supervisors so that it could be easy for the supervisors to identify any problems associated in clinics.

RECOMMENDATIONS: The study revealed that sharp waste management was not well managed in all the stages from segregation to disposal.

It is the responsibility of Supervisors in clinics to make sure that there is availability of resources in clinics to enable staff to adhere to procedures regarding the segregation, storage, transportation and treatment of sharp waste in rural clinics in Swaziland.

Relevant documents should be available to address the management of sharp waste containers.

There should be close supervision in clinics from supervisors

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LIST OF ABREVIATIONS

HBV – Hepatis B Virus

WHO – World Health Organization

RWP – Risk waste pit

HCW – Health care waste

RW – Risk waste

HCWM – Health care waste management

PPE – Personal protective equipment.

SOIs – Sharp object injuries

OBE – Occupational blood exposure

FTE – Full time equivalent

DEFINATIONS OF TERMS

1. HEALTH CARE WASTE - a byproduct of health care that includes sharps, blood, body parts, chemicals, pharmaceuticals, medical devices and radioactive materials.

2. **INFECTIOUS WASTE** - waste which is suspected to contain pathogens.

4. **PATHOLOGICAL WASTE** - waste consisting of tissues, body parts, human fetuses, blood and body fluids.

5. **SHARPS** - a category of health care waste comprising items which can cause cuts and injuries. These include needles, scalpels and broken glass.