HEALTHCARE WASTE MANAGEMENT PLAN: IDENTIFYING THE TEAM VIEW OF A CLINIC

PLANO DE GERENCIAMENTO DE RESÍDUOS DE SAÚDE: IDENTIFICANDO A OPINIÃO DA EQUIPE DE UM AMBULATÓRIO

PLAN DE GESTIÓN DE RESIDUOS DE SALUD: IDENTIFICANDO LA OPINIÓN DE UN EQUIPO AMBULATORIAL

ABSTRACT

Objective: to analyze the views of the staff of a clinic as the stages of construction of a Health Services Waste Management Plan.

Method: descriptive, qualitative approach, developed with 25 patients in a clinic school of the Passos Higher Education Foundation / EPHF, Minas Gerais (MG), Brazil. Data collection occurred from recorded and transcribed meetings, using focus group techniques. Results: two themes emerged from the meetings, << Adequacy of proposals that supported the construction of PGRSS in the reality of service >> and << Identification of facilities and difficulties of the team to adapt to PGRSS >> subdivided into three sub-themes each. Conclusion: deploy PGRSS in health facilities is of utmost importance, especially by allowing the reduction of environmental impacts and compliance with safety standards.

Descriptors: Medical Waste; Waste Management; Planning.

RESUMO

Objetivo: analisar as opiniões da equipe de um ambulatório quanto às etapas de construção de um Plano de Gerenciamento de Resíduos de Serviço de Saúde.

Método: estudo descritivo, de abordagem qualitativa, desenvolvido com 25 sujeitos em um ambulatório escola da Fundação de Ensino Superior de Passos/EFESP, Minas Gerais (MG), Brasil. A coleta de dados ocorreu a partir de reuniões gravadas e transcritas, utilizando-se técnica de grupo focal. Resultados: dois temas emergiram das reuniões: << Adequação das propostas que embasaram a construção do PGRSS à realidade do serviço >> e << Identificação das facilidades e dificuldades da equipe em adaptar-se ao PGRSS >>, subdivididos em três subtemas cada. Conclusão: implantar o PGRSS em unidades de saúde é de extrema importância, principalmente por possibilitar a redução de impactos ambientais e o cumprimento de normas de segurança.

Descritores: Resíduos de Serviços de Saúde; Gerenciamento de Resíduos; Planejamento.

RESUMEN

Objetivo: analizar las opiniones de un equipo de un ambulatorio relativas a las etapas de construcción de un Plan de Gestión de Residuos de Servicios de Salud.

Método: estudio descriptivo de abordaje cualitativo, desarrollado con 25 sujetos en una clínica ambulatoria Escola de Fundação de Ensino Superior de Passos/EFESP, Minas Gerais (MG), Brasil. La recolección de datos se hizo a partir de reuniones grabadas y transcritas, utilizando la técnica de grupo focal. Resultados: surgieron dos temas de las reuniones << Adecuación de propuestas que fundamentaron la construcción de la realidad del servicio PGRSS >> y << Identificación de facilidades y dificultades del equipo en adaptarse al PGRSS >>, subdividido en tres subtemas cada uno. Conclusión: implementar el PGRSS en unidades de salud es de suma importancia, especialmente para permitir la reducción de impactos ambientales y el cumplimiento de las normas de seguridad.

Descritores: residuos de servicios de salud; Gestión de los residuos; Planificación.
INTRODUCTION

The Health Services Waste Management Plan (PGRSS) consists of a document that deals with the correct management of the waste generated by health services, whether large, medium or small, and it is the responsibility of these services to process such waste.

The Health Services Waste Management Plan aims to minimize the production thereof, and to provide a safe route, aiming at the protection of workers and the preservation of the environment, 1 being a mandatory document to all establishments providing a health-related service, ranging from, hospitals and dental clinics to tattoo studios. 3

Health Services Solid Waste Management (HSSWM) involves action to manage the waste following the steps of segregation, packaging, internal collection, storage, external collection, treatment and final disposal, is of utmost importance to define every detail involved, in order to avoid errors and doubts. 1

All professionals working in the health facility should meet the segregation practices, symbols, colors, patterns, expressions and location of residue shelters. 3 For this reason, it is seen that it is important to involve from the preparation of HSWMP until its deployment, the entire team of professionals, since the active participation in the whole process provides more lasting knowledge. Moreover, after the deployment of HSWMP in health facilities, the professionals themselves are responsible for their implementation and also become payers of disorders caused by improper management of HSSWM, as the final disposal of the same generates costs for health facilities that are owned by municipalities, state or country.

Such mishandling endangers and undermines the natural resources and the quality of life of current and future generations, since the waste can contain pathogens that are indirect ways of disease transmission, and provide enabling conditions for the action of other factors that are harmful to human health and the environment. It should be noted that poor management of HSSWM implies misuse of reusable materials and can result in an inadequate destiny of waste. 4

Professionals who directly handle the waste and cleaning professionals are exposed to risks throughout the occupational routine, due to contact with potentially contaminated materials, such as biological, chemical and sharp materials. 5

Solving the problems generated by such waste results in the need to relate public health policies and legislation available in the Official Gazette of the Federative Republic of Brazil, as the RDC No. 306, of Anvisa, which provides for the Technical Regulation for waste management health services, and the Resolution of the National Council for the Environment No. 358, of April 2005, which provides for the treatment and disposal of waste from health care and other measures, it is aimed at environmental sustainability and preservation health as a whole.

The HSWMP therefore it is a plan that will expose corrective measures, preventing negative impacts or reducing their magnitude by the safety standards, requiring that they be complied with by all the establishment, of the professionals in order to prevent possible accidents.

Given the importance of active participation of professionals in the design and implementation of HSWMP, the present study aims to:

- Analyze the views of the staff of a clinic as the stages of construction of a Health Services Waste Management Plan.

MÉTHODE

A descriptive study of qualitative approach, using the focus group technique. The content of the meetings were recorded and transcribed. 6, 7 The survey was conducted in a clinic school, which is a regional reference in STDs, HIV / AIDS and Viral Hepatitis, and offers the population free testing for HIV, Syphilis, Hepatitis B and C , distribution of condoms, Paps smear collection examination, educational activities on safe behavior, and monitoring of occupational accident victims and treatment for STD, HIV / AIDS and Viral Hepatitis, carriers also involving the distribution of antiretroviral drugs and against opportunistic diseases. This clinic was field for the development of the project “Development and Evaluation of a Health Services Waste Management Plan: action research in a school clinic.”

All professionals and academics, active on site, who agreed to participate and were present in the data collection, were involved in the project, forming a population of 25 subjects among them: a pharmacist; a social worker; a psychologist; three nurses, one nursing technician; an administrative assistant; a person responsible for sterilization; eight academics of the Nursing course; six academics of the Biomedicine
course and two students of the Social Services course.

Before the project "Development and Evaluation of a Health Services Waste Management Plan: action research in a clinic school", which allowed the preparation and evaluation of HSWMP, two meetings were held with the research team and working professionals and academics on site to obtain the participation of all the stages of construction and execution of the plan. The collection cited project data, based building of this Article occurred between April and June 2014 and the meetings between July and August 2014, which were recorded and transcribed.

At the first meeting, the research team presented the team of working professionals and academics in place, proposals drawn up in accordance with Resolution RDC No. 306 2004 ANVISA to support the plan, the same being discussed in order to adapt them to the service, reality according to the view of the active team in place, since "the waste management requires knowledge about what is working material, as well as preparation and involvement of the professionals involved in the whole process".

After such an adjustment, followed for the preparation of the Health Services Waste Management Plan (HSWMP), that within four months, was written and sent to the regional office of the municipality in which the clinic is located, and the same organ responsible for evaluation and admission of all HSWMP of health. Before its approval, the plan was implemented.

In order to identify the strengths and difficulties of the team to adapt to the implanted HSWMP, a new meeting which, also, discussed suggestions for a better match was held.

After being in possession of meetings transcribed, topics and subtopics were separated to be analyzed with thematic focus, with the same expressed in figure 01. For the lines selected in the presentation of results, codenames were used, ensuring the confidentiality of the participants, and they are: Angelica , Cherry, Clove, gardenia, Sunflower, Iris, Lily, Daisy, Rose and Tulip.

The review body meets the criteria of thematic analysis, is that the exploration of material, treatment results and interpretation is one way that is best suited to qualitative research, being composed of three stages: pre-analysis; exploration of the material and the processing of results and interpretation.

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![Figure 1. Themes and sub-themes organized, from the subjects' statements, during meetings conducted through a focus group technique with research participants. Passos-MG, 2015.](image)

RESULTS

Two themes that emerged from each meeting were divided into three sub-themes each analyzed thematically, being the same as described in figure 1 of the method.

At the first meeting on the theme "adequacy of proposals that supported the construction of HSWMP the reality of the service", one of the research subjects raised the issue of the need to avoid as many errors due to the possibility of staff contamination was approached and of people who will come into contact with this residue subsequently...
resulting in the discussion of the first sub-theme: “disposal of vacuum collection tubes.”

Do you know what I think? Not to cause confusion of used or not used, it can have a little bit of blood that sometimes we do not even notice and ends up discarded in the trash, so I could get it all in the biological waste. (Angelica)

So, the clean purple that goes to chemist and red goes to clean common. Then, by what was discussed, what we could deploy is the following: it was used for biological, with visible or no blood. (Cherry tree)

Still concerned about the possibility of contamination of the health service staff or others who may come into contact with the waste generated in the service, the second sub-theme was raised: “cotton disposal used to stanch the blood after collection.”

I think what can happen is: instead of you having all that work, the girls who are in the waiting room are like a collective orientation of these new standards. (Angelica)

I think a cool place is there at the front desk, because a lot of people, sometimes, puts a warning, because they really do not know. They throw here (collective counseling room) in the black bag, sometimes they throw it out there. (Carnation)

Yeah, but... the CD4 cannot let the patient leave with cotton the cotton. (Gardenia)

Yeah...You have to instruct. (Sunflower)

The third sub-theme involves the “disposable apron disposal used by patients.” Such patients are attended by gynecologists or breast clinics that perform invasive procedures on the cervix or breast, with the possibility of minor bleeding. Then, a serious problem arises. Professional aseptic responsible for collecting waste ends up running into the trash and non-recyclable common waste overflowing with dirty disposable blood aprons. To collect them, you need to join them with their own hands and are always equipped with nitrile rubber protection gloves as Personal protective Equipment - PPE, and then, discard them in the correct bin, biological waste, putting it in direct contact with highly infectious materials.

Sometimes, Ana [codename for the nursing technique that helps the doctor] will only think about the place where she works and not in the bathroom, in the case where women are exchanged. (Iris)

You have to leave a little note and ask for the doctor, sometimes or instruct one of them [the nurses]. (Sunflower)

The theme “identification of facilities and difficulties of the team to adapt to HSWMP” was discussed at the second meeting following the implementation of HSWMP, whose first sub-theme “things that facilitated the disposal of waste”, are simplified diagrams showing waste management of each room, with pictures representing the identified bins and their waste; identification and standardization of bins; as well as reorganization of the local structure. Such items have facilitated recognition of the team regarding segregation and correct storage.

What I liked most of the change was that it not only changed, they were organized in a way that they helped us to learn, so, mainly the tables, right? The labels you put on [the bins], that was what taught me the truth, because every day I have to look at it. Lastly we learn and can memorize it. But I really enjoyed it because of a feeling so that we are protected, to doing right and, at the same time, protecting. (Lily)

The “difficulty of behavioral re-education regarding the segregation of waste” was addressed as subtheme because it is known that all change occurs slowly and gradually, as it implies a change in behavior and greater attention at the time of segregating, which can generate some difficulty.

I realized I had much wrong in the garbage there. I do not even know, I think it is changing the culture. We Brazilians, are not accustomed to the selection process, the selection process is entering now in our culture, right? This transformation everyone must have, then so, I find it even this gradual change, this absorption of this HSWMP. (Angelica)

After seeing food rest thrown in the recyclables, I called and asked right people begin to pay a little more attention to the figures that were scattered all rooms of the clinic. Each place is for these figures to facilitate and even then so, from time to time something happens or another. (Iris)

The important thing is to talk, why is a continuing education and the trend worldwide, today is this same. (Daisy)

Difficulty I think that's what we're talking about is change of mind right? It is the re-education within the program, in the right way. I think the difficulty is this intrinsic difficulty even changing, right? We go out of our comfort zone. (Rose)

As discussed above, all health service must have HSWMP, and the same required by the Health Surveillance. Thus, the last sub-theme “learning generated with the plan’s implementation” was discussed.

This HSWMP here helped me in my house, because before I did not separate waste not. Now at least I'm separating the bottles. (Angelica)

Both served [HSWMP] to me here at the clinic, serving're there for me too in the EU [Emergency unit] to discard the materials.
that we use there. Then, served enough at this point for me not to use only inside the clinic but in other health places. (Tulip)

Have served as a regional reference. Another town did not know how to drop some losers pills, right? And he got in touch with us to find out how he was doing. Then, since I already knew through the program we have here, how to dispose of those pills and was sent to us, for us to dispose of it correctly. (Rose)

It was found that the learning generated by the plan will contribute to the professional and personal life of each active team member in the clinic.

**DISCUSSION**

**Disposing of the vacuum collection tubes:** in this school-clinic, they use two tubes for blood collection vacuum, being dry or without anticoagulant tube (red cap) and the tube with EDTA anticoagulant (purple cap). Its discharge occurs after centrifugation and separation of blood serum or plasma dry tube in an EDTA tube may also be necessary due to lack of vacuum at the time of collection and even in rare situations of loss of validity.

Was passed it to the service team, the researchers, the RDC Resolution No. 306 of 2004 states that the disposal of dry tube without contaminating or without blood should be in the trash; the tube with EDTA without contaminant should be disposed of chemical waste and any one with contaminants in biological waste.

It is known that it is necessary to involve all levels of the organization, from academics, employees to the coordination of the service. Therefore, all the views expressed were taken into account. It was defined, that regardless of the reason, the tubes must be disposed of in biological waste.

**Cotton disposal used to stanch the blood after collection:** According to Resolution RDC No. 306, cotton must be disposed of as biological waste, which already occurs in the clinic. But, in days of blood sampling for the examination of quantification of lymphocytes T CD4 / T-CD8 and viral load (VL) in HIV-positive patients, some of these come with cotton because the blood was not contained and since they use drugs which prevent the formation of thrombi, causing blood clotting their delongue. These rules are on the clinic door or existing general waste at the reception.

The basic precautions apply to blood and other body fluids in order to reduce the risk of transmission of sources of microorganisms infection. It is then observed, that it is important to train both the employee and the patient to ensure effective adequate disposal. Therefore, it was decided that patients will be instructed about the economic and environmental importance of waiting in the collection room to dispose of the cotton in the biological waste.

**Disposable apron disposal used by patients:** within outpatient facilities, is inserted Viva Women Program which accompanies women interested in IUD insertion, diagnosed with premalignant lesions of uterine cancer or breast cancer. For such procedures, it is necessary to use a disposable apron for the patient and disposable sheet on the table, and Personal Protective Equipment - PPE for professionals involved.

It is noticed that, after treatment, the patients withdraw disposable aprons and dispose of the existing general waste in the office bathroom.

The RDC No. 306 does not directly define the packaging to be applied to disposable aprons, but, states that are part of the group of waste containing blood or body fluids. Therefore, it is concluded that the disposable apron should be packaged with biowaste.

The fact to have reached this consensus is justified by the context of the health care waste wisely which offer direct health risks to the community, as the correct rules of handling are not followed.

We see that sometimes the health professional gazes back to the time when there is his contact with the patient, forgetting to guide the patient on how to dispose of materials such as aprons. The professional health service must therefore, be attentive to this critically to adapt and to carry out such guidelines.

**Items that facilitated the disposal of waste:** it suggested the creation of permanent forms of communication with professionals working in the service to facilitate compliance with HSWMP and thus obtaining greater effectiveness. Conclusion is, with this, that the purpose of the research, team in making segregation and easier storage was successfully achieved, given that it was focused to apply a way that facilitates the work of the health care team to adapt to the requirements plan.

Difficulty of behavioral re-education regarding the segregation of waste: the difficulty cited by survey participants is that which naturally exists in every human being, in the case of a front lock to something new, should the person be willing to get used to the process generated by change.

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**Healthcare waste management plan...**

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This requires work, on continuing education and health promotion, so that workers have more quality of life.  

Learning generated with the plan's implementation: the knowledge gained can also be used in any other provider of health service site that one of the team members can come to act, since health units have numerous wastes in common.

The resolutions that deal with the waste management issue, indicate that all who participate, directly or indirectly, in the generation processes, treatment and final disposal, have their share of responsibility in the management. Thus, it is pertinent that the professional is trained and qualified and can apply the knowledge generated in any other health service.

It should be noted that inadequate segregation of waste, is often linked to lack of training, resulting in a non-realization of HSWMP, since, without professional training, they often do not have actual knowledge of the risk posed by contact or improper disposal of contaminated waste. Moreover, it is important that this training takes place continuously in order to ensure the effectiveness of the management of residue.

**CONCLUSION**

Deploy HSWMP in health facilities, as an outpatient facility, is extremely important not only because it is required by law, but, by allowing the reduction of environmental impacts, beyond compliance with safety standards.

The active participation of health service staff, in the construction plan, was highly necessary and effective for the execution of proposals, since the subjects participated in the decision-making of all stages of management, which implies a generated learning which will be for professional and personal life of each member of the team. In addition, the standardization of management, procedures as daily practice, is of great importance because it brings benefits that result in a higher quality of public health, occupational health and the environment.

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