Analysis of Management in Health and Safety at Work Related to Employees Working in Health Teaching / Research Laboratories in a University

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Abstract

The search for always providing the best environment for its employees and students, allowed a university to open its doors for an evaluation regarding issues of health and safety at work, a very controversial topic, which leads many companies to close their doors and not accept this kind of "invasion" in your privacy. In this assessment, it can be seen that it is a favorable working environment for users, as their SESMT always looks for improvements and complies with the legislation, but there were also points to improve.

Keywords: Health. Work safety. SESMT.

1. Introduction

Working in laboratories is an activity that requires a lot of attention and strictly following the established good practices, each type of laboratory has its particularities, so it must have its own biosafety manual, available to users. According to MASTROENI (2006, p.3), every laboratory user, whether he is the responsible technician, professor or student, must have access to the manual developed in view of the particularities of each laboratory, identifying the types of risks to which they are exposed, and the procedures on how to get around them in case of an emergency.

Users of teaching / research laboratories in the health area of a renowned university in the south of Santa Catarina, are exposed to the most varied types of risks, being biological, chemical and physical among others, according to MASTROENI (2006, p.4) these risks are characterized by their condition in offering a high potential to cause damage to the worker, product and environment, and are still considered the oldest occupational risk that has been registered. We can characterize these risks as follows: biological risks have their origin through living beings, such as: animals, plants, viruses, bacteria, fungi and protozoa; chemical risks are obtained through the air, through dust, gases, vapors; physical risks are associated with the use of machines / equipment and conditions related to the work environment, which may be: extreme temperatures, noise, vibrations, among others.

Applying biosafety techniques while performing routine work in the health field is essential, as it aims to ensure the health and safety of all users of the laboratories. According to OPPERMANN & PIRES (2003, p.9) when performing outpatient / laboratory activities, one comes into contact with biological agents, such as: blood, saliva, urine, feces, among others, all of them potentially pathological, for not knowing whether the biological material is contaminated, any material of biological origin is contaminated, and never manipulates it without the EPCs, suitable PPE.

Proper use of EPC and PPE is the best way to prevent and protect against accidents at work, according to NETO (2015, p.238) the smart preventive is focused on EPC, as it seeks to reduce collective risks, and they tend to be more efficient because they do not depend on the employee's willingness to use it.

The purpose of this article was to verify that employees are properly prepared to carry out their activities safely, to understand how the university behaves in relation to work safety in order to apply improvements.

The university has a complete structure in laboratories, for teaching and research in the health area. It has excellent quality courses in medicine, biomedicine, dentistry, nursing, pharmacy, physiotherapy and others. To carry out teaching in these courses, practical activities in laboratories are necessary. All laboratories offer some type of risk, depending on the activity developed, however, those that require practices with greater attention to health and safety are: operating technique, human anatomy, pathology, microbiology, parasitology, microscopy, skills.

2. Methodology

The methodology used was the application of a checklist, composed of 42 objective questions, related to health and safety at work in the activities developed by its users in all 32 laboratories of the institution, aimed at teaching and research in the health area. The questions were answered by those responsible for each laboratory, usually laboratory technicians, other times professor researchers at the institution, during a visit to each laboratory unit. With the collected data, the 5 most relevant items were selected to analyze the practice of health and safety at work. Before the questionnaire, the following items were observed: risk map, emergency plan - the escape route, supply of PPE's, handling of garbage, training of the laboratory cleaning staff. Through the answers obtained, statistical data were generated through the Microsoft® Excel® program, so that it graphically presented the work safety behaviors in this sector.

3. Results Analysis

The risk map is a preventive measure that collaborates with protection of workers, it graphically informs all the risks present in the environment in a qualitative way, through colors and circles of different sizes allocated in the plant of the evaluated place, being very objective. This mapping is a very important tool for accident prevention, however, attention must be paid, because with each new equipment, change in the environment, different chemical, it must be updated to maintain its efficiency. The risk map must be attached in a location that is easy to see for everyone who visits the environment. According to the data collected, the results showed that 65% of laboratory units present the risk map.

The preparation of an emergency plan, informing the safest escape route for a possible evacuation from an environment involves many steps, a previous study of the facilities is carried out, where several factors are checked and the necessary adjustments are requested, such as: lighting emergency, informational alarms, number of employees, fire hydrants / extinguishers, study of the floor plan, determination of a PE (meeting point) among many other items, everything must be working perfectly so that in an emergency the situation is circumvented in the most satisfactory as possible. An interesting question, the university trains its employees every six months to fight fires, currently 10% of its 1400 employees are brigadiers, the intention is that this number will continue to increase. The university underwent a recent update of its emergency plan and now has 100% of its laboratory facilities reporting the escape route.

The supply of PPE's is a very important issue when it comes to laboratory activities, however, more important than providing personal protective equipment is to ensure that employees use it correctly. According to the questionnaire applied, 100% of the interviewees guaranteed to have access to the necessary PPE's whenever they need to, and said they use it correctly, claiming to know the importance of being considered primary containment barriers, due to the courses they take frequently. They use gloves, glasses, lab coats, shoes, among others. According to MASTROENI (2006, p3), those who work with the handling of infectious agents, must undergo constant training and recycling of techniques in the area. Employees pass annually, or when there is a demand for training / refresher courses organized by the coordination of health laboratories.

The laboratories' waste is separated into three types: Biological / infectious waste, where disposable gloves are discarded, paper / cotton used in procedures, material with microorganisms, material for clinical analysis, remembering that syringes with needles have a specific box for disposal. Ordinary garbage and recyclable garbage. All infectious waste is collected by personnel prepared for the activity, and disposed of correctly. The 6% of the laboratories that did not apply in terms of waste disposal, are laboratories where there is no risk, such as a health informatics laboratory and a laboratory with synthetic human parts, among others.

The employees who perform the cleaning of the laboratories also undergo periodic training / recycling, and are instructed not to manipulate any type of substance of biological origin, with their activities very well defined, who handle and clean the benches are the technicians themselves. laboratories. The 2% that did not apply to this item, are laboratories where there is no risk, such as a health informatics laboratory and a laboratory with synthetic human parts, among others.

4. Conclusion

According to the data collected and evaluated, we concluded that the university is very concerned with the health and safety of its employees and users of its facilities, always looking for improvements. This article aimed to find points where they can be improved. We found some items along the 42 applied questions, which deserve attention, such as the case of only 65% of the laboratories having a risk map. Another interesting issue that was raised, the laboratories do not have a personalized biosafety manual for each unit, which should be available to all users. With an unsatisfactory percentage in the risk map and the absence of an individualized biosafety manual, safety in the laboratories is more vulnerable, we know that

these two have precious information about each particular location, as these are personalized studies that seek to reduce risks and point out solutions to emergencies.

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