THE RELEVANCE OF THE HEALTH CLEANING PROCEDURE FOR HEALTH

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Abstract: Objective: The purpose of this work is to recognize studies that address the importance of the procedure for cleaning health products, in order to provide a critical observation to practitioners in the corresponding areas. Method: This article was carried out through an integrative bibliographical review. The research materials were: articles from the Google Scholar portal on this theme in the period of 2022. The research is a bibliographical review, which concerns a structured study developed with based on material published in articles on the Google Scholar portal. Results: The cleaning procedure, being reported as a main period in the treatment of PPS, was recognized in 4 studies, as being the indispensable process that makes the products safer to handle and prepares them for disinfection or sterilization. Five articles researched procedural audits, cleaning, and two articles on device and resource properties. Conclusion: With that intention in mind, the panorama elaborated for this study provided an overview of the reasons related to the cleaning procedure that can influence the disinfection and/or sterilization phase and can provide support for institutes interested in performing self-medication cleaning. Assessment of PPS management structures and procedures.

Keywords: CME. Health Products. Cleaning procedures.

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INTRODUCTION

Primarily, the instruments applied in the health area are made with raw materials that grant several cycles of cleaning, preparation, disinfection or sterilization repeatedly until they lose their purpose. This procedure ensures the prevention of the transmission of microorganisms and must be carried out by a qualified professional (SOUZA et al., 2020).

The health products (PPS) process is pointed out as a means of increasing the guarantees of products that generally have a high cost for sanitary systems and reducing the environmental effects they cause, since the reuse of these artifacts reduces the volume of waste dumped into the environment (SOUZA et al., 2020).

It is important to emphasize that the PPS process is driven by regulatory policies based on risk management and public health safety; however, it differs from one country to another and can be more or less restrictive, considering technological, operational, environmental, legal, economic, and political issues. (ROSEIRA et al, 2016).

In hospital institutions, the PPS are assigned to the Materials and Sterilization Center (CME), it is the place of "protection of the patient against contamination/cross-infection and other adverse events related to the materials used in care, above the duty and commitment to adequately meet the needs of the care units, especially the surgical center" (KAZUKO, 2022).

In this way, the CME, as well as other organizations/institutions processing PPS are responsible for ensuring the daily fight against infections (HAIs), as any failure in the process from material admission, cleaning, disinfection, preparation, packaging can endanger the sterility of the preparations, which in the future corresponds to infectious conditions, either during patient hospitalization or in an outpatient environment, or office. (ALVIM, RAMOS; DURÃO, 2019).

The parameters that influence cleaning are summarized in the Sinner Cycle, which is represented by a circle where the elements that interfere in the process (temperature, chemical agent, time and mechanical action) interact in a compensatory way in order to ensure adequate cleaning

(SMITH, et al., 2012).

Therefore, to perform cleaning, the following are required: water, detergent, mechanical action, temperature and time.

In the cleaning process, the steps of rinsing and drying the parts are essential and to completely erase the organic matter of the PPS, in addition to removing deposits, dirt and garbage from the cleaning agents and consumables applied, regardless of the type of cleaning designated, both manual and automated (SOUZA, et al., 2020).

This should be carried out rinse with potable water which is intended to remove all residues from the applied solution/inlet and after proper rinsing. This procedure is significant because residual moisture can promote microbial growth, adversely affecting other procedures, such as sterilization, such as the danger of damage to the material itself. (SOUZA et al., 2020).

Detergents are sanitizers intended for cleaning products and surfaces by reducing surface tension, composed of synthetic, organic, liquid or water-soluble powders that contain wetting agents and emulsifiers that suspend dirt and prevent the formation of insoluble compounds or foam on the instrument or surface (BRASIL RDC n.º 15; 2012). In the PSS process, we offer to apply detergents composed of enzymes, alkaline or acidic, regardless of the seal, as long as they are decently registered with ANVISA. (OLIVEIRA, MATI, 2017).

The inspection is carried out using image-enhancing lenses, with a magnification of at least eight times, especially in joints and assembly materials, complemented, when mentioned in some examples, with commercially available chemical tests (BRASIL RDC n.º 15; 2012).

Visual control is recommended during the cleaning process, but it is also necessary to predict the levels of organic matter and microbial contamination in the cleaned objects. Chemical tests must be applied to verify the effectiveness of the cleaning procedure (ALVIM, RAMOS, DURÃO, 2019).

It is essential that the designated area has characteristics in all internal procedures, such as receiving contaminated PPS, cleaning, preparation, sterilization, storage and distribution. Cleaning is a critical step in this process for safe disinfection or sterilization. It should be questioned that, when

there is a type II CME, where there are health products of complex compliance, manual cleaning is complemented by automated cleaning or other cleaning of proven efficiency (BRASIL, RDC n.º 15; 2012).

The purpose of this work is to recognize studies that address the importance of the cleaning procedure of health products, in order to provide a critical observation to practitioners in the corresponding areas.

METHODOLOGY

This work was carried out through an integrative bibliographic review elaborated from published scientific articles, legal and normative documents that subsidize the procedures of hygiene of PPS in the health area.

The evolution of integrative research occurred in six periods. Identification of themes and choice of research questions. Selection of publications for the preparation of samples, description of the pre-selected qualities of the questionnaire, classification of the findings, observation and representation of the answers and demonstration of the review reports (MENDES, SILVEIRA, GALVÃO, 2008).

The research materials were: articles from the Google Scholar portal on this topic in the period of 2022. The research is a bibliographic review, which concerns a structured study developed based on material published in articles, from the Google Scholar portal.

An elevation was made through the theoretical foundations and it was set out to obtain data of great consequence for the accomplishment of this work, because primordial origins were sought so that essential data could be obtained to study the fundamental qualities of the subject.

The standards for the works classified in the bibliographic elevation will be full texts, in Portuguese and English, with free entry to the aforementioned principles of information. The exception standards were themes that do not meet the purposes of the work.

Regarding the works found through the Google Scholar portal around the chosen theme, a

total of 33 articles were found, only 02 of which were in a foreign language and of this amount, 17 articles were chosen as the basis of this study.

It should be noted that in addition to the articles mentioned above to be part of the work, bibliographic references were also used to compose the entire scientific basis in this work described.

FINDINGS

Among the studies found, most were based on exploratory descriptions, followed by laboratory studies, artificial reviews, and narrative reviews of the literature, all focusing on health products.

The cleaning procedure, being reported as a main period in the treatment of PPS, was recognized in 4 studies, as it is the indispensable process that makes productions safer to handle and prepares for disinfection or sterilization (SOBECC, 2017; ; MATI et al., 2018; ALVIM, RAMOS, DURÃO, 2019; SOUZA et al., 2020).

Five articles searched for procedural audits, cleanliness audits, and two articles on device and feature properties. Both in order to predict how the processes and advantages of the cleaning technique are carried out, and to reinforce the importance of preserving strict monitoring of the equipment that helps in this procedure, such as thermal disinfectants and the use of detergents.

The requalification and monitoring of equipment, ensuring the efficiency of cleaning procedures, taking into account the prevention of healthcare-associated infections (HAIs), in addition to patient safety, are issues of global importance (OLIVEIRA, MATI, 2017; SOBECC, 2017; ; MATI et al., 2018; ALVIM, RAMOS, DURÃO, 2019; SOUZA et al., 2020).

The safety of disinfection after a cleaning procedure was highlighted in four studies, as the procedure aims to ensure its effectiveness against contamination and microbiological risks (ROSEIRA et al., 2016; SOBECC, 2017).

The valorization of the use of various varieties of detergents was highlighted in three articles,

which report pertinent appearances, both for the microbial effects on the cleaning routine and for the ideal detergent alternative. (OLIVEIRA, MATI, 2017; SOBECC, 2017; MATI et al., 2018).

It was clear in all the materials reviewed that the concern with cleanliness itself is closely related to the size of the institutions, not only for resources, but for the interest of the professionals who work there. The lack of physical structure, operational procedures that are effective and the proper inspection of what is actually being processed are just points in the midst of so many neglected factors.

DISCUSSION

The implementation of specific legislation for CSD, although it is nationwide and therefore most of the requirements presented aim at minimum needs for a safe processing of SHCP, also presents articles that are difficult to apply for many health institutions (BRASIL, RDC n.º 15; 2012). Complete compliance with the legislation, as well as technological parks with equipment such as washers, thermodisinfectors, for example, although much desired by MSC nurses, are not always a reality (MADEIRA et al., 2015)

It was possible to denote that, in order to carry out good care activities, it is essential to implement a capable and constant treatment with SPF, with special emphasis on cleaning, regardless of the size of the institution.

It should be noted that we are dealing here with a manual procedure, but the automated one if so requires. In addition, the products to be used in practice, their selection and suitability and, above all, the materials/work to be used (POZZER et al., 2019).

It was also seen that cleaning medical equipment is among the 10 most common compliance errors and the Centers for Medicare and Medicaid Services (CDC) and the Joint Commission International (JCI) reported that 1/3 of hospitals have deficiencies in the reprocessing process.

According to the research, it should be noted that the cleaning stages and their validation

must follow a standard operating procedure (SOP), prepared with recent mentions and scientific studies with a high level of demonstration that contribute to the structuring of a well-defined and practical document, as required by Brazilian legislation.

This should allow the systematization and adaptation of an evaluated routine essential for the treatment of SPC, in this case, we can say that the practices involved in the treatment sites of SPC require the quality of internal procedures, especially cleanliness, thus providing indispensable care to the patient, being a measure that should always be evaluated and standardized in health services, in order to ensure the success of all periods of the procedures (POZZER et al., 2019; ALVIM, RAMOS, DURÃO, 2019).

In the specifications of RDC No. 15 of 2012 we find the classification for critical PPS of intricate conformation, that is, those with a lumen of less than five millimeters or blind bottom, places, internals unavailable to direct friction, recesses or valves. Product compatibility is a significant factor in the effectiveness of cleaning during operation. The most common obstacles we face in this case are endoscopes, which are considered more difficult materials to clean, as they have several narrow and large lumens.

A flexible and delicate structure with numerous components, and also the cleaning of radiosurgery materials, which are complex, high expense and their use is increasingly common in various surgical specializations.

In this case, these materials can be damaged by certain chemicals and cleaning products, requiring careful preparation by the team and strict compliance with handling protocols.

Considering this scenario, in the process of cleaning the PPS, with complex conformations, preference should be given to manual cleaning, whose friction should be with non-abrasive materials that do not release particles. It is mandatory by this determination to complement it with automatic cleaning by ultrasonic or other proven device containing cannula connectors and using intermittent flow technology (SOBECC, 2017).

CONCLUSION

The study concluded that the treatment of PPS in CSSD involves several times, all of which require attention, and thus, the hygiene procedure is indispensable for the quality of the treatment of the material, being a step that can influence all aspects of the patient. Reasons related to cleanliness such as cleaning technicians, handling, technicians, equipment and inputs applied, water characteristic and drying are evaluated and reviewed effectively and continuously to ensure a more effective sterilization process.

The control and improvement of quality and safety should start from the representation of health professionals and their managers, directing their work to the organization of processes, with a view to the prevention of HAI and patient safety.

With this intention, the panorama elaborated for this study provided an overview of the reasons related to the hygiene procedure that can influence the disinfection and/or sterilization phase and can provide support for institutes interested in performing self-medication cleaning. Evaluation of the structures and procedures of management of the PPS.

The adequacy of the size of the service institution to the de facto classification of the sterilization sector and with this the acquisition of equipment is a relevant factor, as well as implementing the standard operating procedure based on cleaning indicators, as a way to comply with current legislation, since, for all processes that occur within sterilization, Cleaning must contain this type of traceability.

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