

HEALTH SCIENCES AND ORAL HYGIENE IN ICU PATIENTS: INTERDISCIPLINARITY BETWEEN DENTISTS AND NURSES

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Abstract: At all levels of care, intensive care units (ICU) focus on caring for patients in critical condition. Oral health treatment has been shown to be effective in controlling pathogens in these patients, and the establishment of systematized care protocols is essential to ensure that treatment is effective. This study aimed to review the literature within the scope of Hospital Dentistry in ICU and carry out a systematic review of publications on the subject. Articles published in the last 20 years dealing with Hospital Dentistry in ICUs were studied. The terms used to find related articles that address the topic were words such as “Dentistry”, “Hospital Dentistry” and “ICU” in the Website search. The main objective of the studies was to demonstrate that, based on a brief reflection, the importance of the presence of the dental surgeon in ICUs can be seen, in compliance with the fact that a dental surgeon trained to work in hospital environments must prevent and treat oral conditions, as These events are important sources of systemic worsening. What makes the action efficient if used, within conduct protocols, leading to a reduction in costs associated with deterioration and promoting the patient’s well-being and integrity.

Keywords: Hospital Dentistry, Oral Health and Intensive Care Units.

INTRODUCTION

The debate about the quality of life of patients in the Intensive Care Unit (ICU) is a very relevant topic, especially when associated with the context of interdisciplinarity among health professionals (RELLO, Jordi et al, 2007; PORTO, Alessandra Nogueira et al., 2012; CRUZ, et al., 2016).

From this perspective, there is the hygiene of the oral cavity in hospital institutions, which corresponds to a subject little discussed, however important for the general situation of hospitalized patients, mainly in ICUs, as it

is understood that the oral cavity represents one of the foci of infection and which can be prevented, leading to a reduction in the patient’s length of stay and a reduction in hospital costs (DA SILVA, Jordan L. et al., 2016; MOREIRA, et al., 2022).

Considering that pathologies associated with the oral cavity can trigger implications in different parts of the human body, it appears that patient treatment can involve different health professionals, aiming for the patient’s overall health. It has been observed that cleaning the oral cavity of critically ill patients needs to be associated with the definition of practices aimed at care involving an interdisciplinary team in the ICU (ROCHA, et al., 2022).

On the one hand there is Law number: 7,498 of 1986, which mentions the nursing profession indicating the responsibility for caring for patient hygiene and comfort, including the oral cavity, on the other hand there is the role of the surgeon - dentist in ICU, as mentioned in Bill, number: 2,776 of 2008, which requires dental professionals to be in ICU (CRUZ et al, 2016).

Therefore, this article aims to reflect on the interaction between dentistry and nursing professionals in cleaning the oral cavity as a way of preventing pathologies arising from the absence and/or insufficiency of oral hygiene in critically ill patients.

METHODOLOGY

The integrative literature review was carried out using a qualitative and reflective approach (Atay S. et al., 2014; CRUZ et al., 2016; ROCHA et al, 2022) regarding the interaction between dentists and nurses in oral health practices of ICU patients. Among the health science literature, pathologies related to the oral cavity and their implications for the general health of critically ill patients were identified, highlighting the importance of oral

hygiene as a treatment for diseases and also as prophylaxis in ICU patients.

RESULTS AND DISCUSSIONS

It was observed that the literature addresses oral health as one of the primary factors that reflect on the patient's overall health, as it is understood that inadequate oral hygiene can result in the intensification of the patient's severity due to the low capacity of the immune response (MOREIRA et al, 2022).

Hospitalized patients with poor oral hygiene are more likely to develop a respiratory infection with possibilities of worsening. Thus, cleaning the oral cavity is beginning to be seen as a strategy for preventing infection during hospital stays. (MORI, Hideo et al., 2006; BANNWART, Lisiane Cristina et al., 2021; ROCHA et al, 2022).

In ICU patients, oral health has been debated as it presents possibilities for reducing the proliferation of bacteria and fungi, contributing to the patient's general health (SOARES et al, 2022).

The oral cavity houses several colonies of bacteria and fungi, which can alter saliva, affecting the periodontium and dental elements, resulting in proliferation to the rest of the body through the circulatory system, offering a greater risk of infection (SOARES et al, 2022).

Periodontal diseases are immunoinflammatory in nature, affecting the structuring tissues of the teeth generated by the accumulation of bacteria in these regions, also known as bacterial biofilm (SOARES et al, 2022).

Some pathologies such as bacterial endocarditis, fracture injuries or infections, caries injuries, prosthetic injuries, pulp necrosis, periodontal diseases, pneumonia, among others, lead to the intensification of a disease and interfere with the patient's general condition, especially when the hospitalized

patient already has diseases such as diabetes, cardiovascular and pulmonary diseases, among others (MOREIRA et al, 2022; ROCHA et al, 2022).

The lack of oral hygiene leads to other consequences such as dry mouth, gingivitis, oral candidiasis, nosocomial pneumonia, among others, which trigger other infections that worsen the patient's condition, as well as the length of hospital stay (MIRANDA, Alexandre Franco et al, 20016; SOARES; MACHADO; MACHADO, 2022).

Considering the relationship between oral health and the patient's systemic health, especially in the ICU, some debates point to the importance of an interdisciplinary team to address oral hygiene or systemic and oral pathologies of hospitalized patients with the participation of dentists (dental surgeon) and nurses (CRUZ; ARAUJO; MOREIRA, 2016; SILVEIRA, B. L. et al., 2020; SAMIM, Abbas et al., 2022).

Much has been discussed about the importance of dentists in the hospital environment, expanding their activities beyond offices or outpatient clinics, and, therefore, acting in a set of preventive and therapeutic oral health actions, in addition to treating infections to prevent worsening of pathologies (ROCHA et al, 2022). However, the oral health routine has been led by nurses as they assume care for patients at different levels of complexity (CRUZ; ARAUJO; MOREIRA, 2016).

In this aspect, considering the relevance of these professionals in oral hygiene in ICU patients, some interactions can be tested (Table 1).

Dentist (Dental surgeon)	Nurse
Definition of the oral hygiene protocol for prophylaxis and treatment of diseases in patients with different levels of complexity;	Compliance with oral health protocol
Clinical examination before and after admission to the ICU, aiming to oral health diagnosis;	Analysis of the benefits of oral hygiene for ICU patients.
Prescription of medications to treat pathologies of the oral cavity	Administration of medication prescribed by the dentist
Oral health monitoring	Monitoring the patient regarding reactions and adaptations.
Conduct training on oral hygiene practices for ICU patients	Participate in training on oral hygiene for ICU patients and disseminate this knowledge to other nursing categories.

Table 1: Interaction between health professionals in the practice of oral hygiene.

SOURCE: MOREIRA et al, 2022; CRUZ; ARAUJO; MOREIRA, 2016.

FINAL CONSIDERATIONS

The relevance of interdisciplinarity in health science has been increasingly addressed in scientific research and hospital practices. In this sense, interdisciplinarity, especially in the work of dentists and nurses in the context of oral health, shows benefits to the general health of critically ill patients and, therefore,

suggests the need for greater efforts to make it a routine practice in intensive healthcare units.

Furthermore, hygiene of the oral cavity can be extended to patients who are not in a critical condition, in addition to having the possibility of involving other health professionals such as pharmacists, nutritionists and others.

REFERENCES

- ATAY, Selma; KARABACAK, Ükke. Oral care in patients on mechanical ventilation in intensive care unit: Literature review. *International Journal of Research in Medical Sciences*. Aug;2(3):822-829, 2014.
- BANNWART, Lisiane Cristina et al. Dentistry and Intensive Care Unit: A Brief Report. *European Journal of Dentistry*, v. 16, n. 02, p. 449-453, 2021.
- CAMELO, S. H. H. Competência profissional do enfermeiro para atuar em Unidades de terapia intensiva: Uma revisão integrativa. *Revista Latino-Am. Enfermagem*, v. 20, p. 192-200, 2012.
- CRUZ, R. A. de O.; ARAUJO, A. A. de; MOREIRA, T. P. Enfermagem e Odontologia: Perspectivas para a integração no cuidado ao paciente crítico. *Revista Brasileira de Educação e Saúde -REBES*, v.6, n.1, p.10-13, 2016.
- MIRANDA, Alexandre Franco et al. Oral care practices for patients in Intensive Care Units: A pilot survey. *Indian journal of critical care medicine: peer-reviewed, official publication of Indian Society of Critical Care Medicine*, v. 20, n. 5, p. 267, 2016.
- DA SILVA, Jordan L. et al. Oral health of patients hospitalized in the intensive care unit. *The journal of contemporary dental practice*, v. 17, n. 2, p. 125-129, 2016.
- MOREIRA, H. B.; et al. Desafios e importância da odontologia hospitalar: Uma revisão integrativa. *Revista Faculdade Odontologia Universidade Federal da Bahia*, v. 52, n.1, p. 90-97, 2022.
- MORI, Hideo et al. Oral care reduces incidence of ventilator-associated pneumonia in ICU populations. *Intensive care medicine*, v. 32, p. 230-236, 2006.
- PORTO, Alessandra Nogueira et al. Hospital Dentistry: a proposal of new discipline. *RSBO Revista Sul-Brasileira de Odontologia*, v. 9, n. 1, p. 119-122, 2012.

RELLO, Jordi et al. Oral care practices in intensive care units: a survey of 59 European ICUs. **Intensive care medicine**, v. 33, p. 1066-1070, 2007.

ROCHA, M. G.; et al. Manutenção da higiene oral em pacientes de terapia intensiva: O papel da Odontologia Hospitalar. **Research, Society and Development**, v. 11, n.16, p. e329111638078, 2022.

SAMIM, Abbas et al. Effect of specific training course for competency in professional oral hygiene care in the intensive care unit: a quasi-experimental study for developing a standardized learning curve. **BMC anesthesiology**, v. 22, n. 1, p. 171, 2022.

SILVEIRA, B. L. et al. The health professionals' perception related to the importance of the dental surgeon in the Intensive Care Unit. **Rev Gaúch Odontol**. 2020; 68: e20200015.

SOARES, H. L; MACHADO, L. S.; MACHADO, M. S. Atendimento odontológico em pacientes na UTI: Uma revisão de literatura sobre as doenças mais comuns causadas pela má higienização bucal e a importância do Cirurgião Dentista no ambiente hospitalar. **Research, Society and Development**, v. 11, n.12, p. e381111234659, 2022.

RELLO, Jordi et al. Oral care practices in intensive care units: a survey of 59 European ICUs. **Intensive care medicine**, v. 33, p. 1066-1070, 2007.