

# Nursing care and hospital dentistry in intensive care: palliative care for the elderly with covid-19 and associated comorbidities

## Abstract

**Objective:** Describe nursing and dental care in the ICU and qualify palliative care for elderly patients with covid-19 and associated comorbidities.

**Method:** It is a descriptive-qualitative, documentary and even bibliometric statistical study, associated with the cohort method practiced by federal hospitals.

**Results:** According to the statistical analyzes of the cohort and the theoretical-scientific basis, nursing and dentistry care in the ICU in palliative care for the elderly associated with comorbidities, is necessary and relevant in terms of their clinical and fundamental practice in accordance with the statistical studies raised.

**Conclusion:** The realization of this long-standing scientific study demonstrated the importance of nursing care and dentistry in the ICU, the importance of the pandemic related to Covid-19 and all the theoretical and philosophical basis for the implementation of palliative care.

**Keywords:** nursing, dentistry, intensive care, palliativecare, elderly, coronavirus infections

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## Introduction

Public health has faced a pandemic differentiated from the others already studied, caused by a virus considered “new” (SARS-CoV-2), which causes COVID-19. The first people to become ill were identified in Wuhan - China, in December 2019. It is known that COVID-19 is an acute respiratory disease, transmitted between people, with a high mortality rate in the elderly. The lethality rate in this population is of the order of 14.8% and, in people with underlying medical conditions such as cardiovascular diseases, to 13.2%, with diabetes mellitus (9.2%), arterial hypertension (8.4%), chronic respiratory diseases (8.0%) and cancer (7.6%).<sup>1</sup>

We are talking about a pathology of respiratory content, the period of immunological window varies from five to its full 14 days, and its transmission period is five days after the first symptoms appear. The most curious point of this disease is the severe acute respiratory syndrome (SARS), which affects between 19% and 30% of people who are going through this phase. In addition, 77% of them have a typical bilateral pneumonia, detected by computed tomography. According to all the media and aggravating factors of this pathology, the World Health Organization (WHO) started, on January 1, 2020, several movements and actions to combat the identified outbreak. COVID-19 was already considered a public health emergency on January 30 and, on March 11, it started to be characterized as a pandemic, after infecting 118,000 people in 114 countries and leading to 4,291 deaths, which is only increasing.<sup>2</sup>

Since the period of immunological window mentioned above exists and the period of transmission is extremely different, the striking fact of this disease is the severe acute respiratory syndrome (SARS), which affects between 18% and 32% of patients. In addition, 75% of them have atypical bilateral pneumonia, detected by specific

tests chosen by the medical professional. Observing this situation of seriousness of the disease, the World Health Organization (WHO) initiated, on January 1, 2020, several actions to combat the outbreak. COVID-19 was already considered a public health emergency on 30 January and, on 11 March, it became a pandemic, after infecting 118,000 people in 114 countries and causing 4,291 deaths.<sup>3</sup>

There is also a disorder of health systems in several countries that do not have adequate infrastructure for the situation, prepared human resources, equipment and materials for the simultaneous care (at the same time) of thousands of people infected with the pathology. In addition, the length of stay in the Intensive Care Unit (ICU) has been long, which increases the waiting time for critically ill patients. This situation requires care protocols and imposes on health professionals the difficult decision of choosing who can live or die. This situation aggravates the recommendation not to provide fans to people over 80 when demand exceeds supply. Currently, although hospitals are caring for and treating people infected with this disease with more advanced resources, there is a world wide carelessness with older elderly with suspicion or confirmation of COVID-19.<sup>4</sup>

Hospitalized patients with poor oral health are more likely to have unfavorable outcomes, due to the increased risk of respiratory infection. It is known that the risk of a poor evolution, due to respiratory infections in hospitalized patients, is increased in patients with poor oral hygiene. Recent systematic reviews point to the importance of protocols for chemical and mechanical control of oral colonization, to prevent unfavorable outcomes of systemic and oral health.<sup>5</sup>

Dental care in intensive care units (ICU) is important and cost-efficient for the prevention and control of diseases, such as respiratory infections. Oral care is perceived as highly important in patients on mechanical ventilation (MV) in the ICU by more than 90% of nursing

professionals. In addition to the secares being considered difficult to perform, when they are not properly taught to the team, the task becomes more complex for those who perform it.<sup>6</sup>

It is important to determine the impact of oral care protocols on patients' health. When one of these protocols is present, the quality of the resolution of assistance activities is significantly higher, and the participation of the team involved in the assistance is more integral, showing the importance of the presence of these protocols.<sup>7</sup>

Much has been written about the humanization of care and, particularly, about the humanization of care for patients with death. At first glance, it may seem quite punctual; however, the humanized care of a person, in his process of finitude, will be intrinsically linked to caring for that person, since his entry into primary care. Thus, the more (or less) humanized way of assisting the person, taking care of them in their terminality process, is inter connected to the way their care has been being since that moment. In this sense, we may have, before us, a person out of therapeutic possibilities, more fragile or strength ened, according to what he has received in terms of humanization.<sup>8</sup>

Patients with advanced diseases, many of them terminally ill, are a reality in our hospitals, with serious difficulties for administrators, health professionals, family members, and for the patients themselves. There are several problems and challenges, highlighting, among others, the scarcity of human resources to deal with and respond to the demand soft he patient and his family; the lack of a national network that articulates actions of prolonged and persistent medical interventions to the detriment of an approach that relieves the patient's suffering; the lack of a home support network; and the fact that care at the end of a life time is not a priority for health policy managers.<sup>9</sup>

Thus, in view of the above, the following guiding question was elaborated: How can we academically explore nursing and dentistry care in the ICU for elderly people with covid-19 in palliative care and associated comorbidities? Since online dissemination represents a revolution in the model of production, distribution and updating of news continuously, expanding the knowledge of content published on websites about health, as well as about its interrelations and determinants, is important for information and education of society. In addition, it can impact individual actions, the population in general, the medical community and public policy makers.

In this direction, the present study aims to describe nursing and dentistry care in the ICU and to qualify palliative care for elderly patients with covid-19 and the associated comorbidities.

## Method

This is a descriptive-qualitative, documentary and even bibliometric statistical study, associated with the cohort method practiced by federal hospitals. Its focus will be nursing care and dentistry in the ICU and qualify palliative care for elderly patients with covid-19 and associated comorbidities.<sup>10</sup>

To elaborate this study, the six stages of the bibliometric review and the stages of the cohort study that will be cited were used, in order to organize the information collected.<sup>11</sup>

1st stage: elaboration of the guiding question. Its definition is the most important phase, as it determines the identification of what must be addressed to contemplate the proposed theme.<sup>12</sup>

2nd stage: search or sample in the literature. The search was carried out in a wide and diversified way in their liable databases, taking into

account that the determination of the inclusion and exclusion criteria for selection of the material should be carried out in accordance with the guiding question.

3rd stage: data collection. In this stage it was defined what would be extracted from the selected studies using a previously prepared instrument, with the purpose of organizing the key information in a concise manner for the construction of the study.<sup>12</sup>

4th stage: critical analysis of the included studies. In this phase, data analysis was carried out in detail to ensure the validity of the review. Always taking into account the guiding question as the basis for all analysis.<sup>12</sup>

5th stage: discussion of the results. In this phase, the results obtained in the research were discussed and a critical analysis was carried out on what was evidenced.<sup>12</sup>

6th stage: presentation of the integrative review. This is the stage where the study was properly prepared. Containing enough information for the reader to analyze the study.<sup>12</sup>

The search for the studies was carried out in the Scopus Info Site (SCOPUS), Cumulative Index to Nursing & Allied Health Literature (CINAHL), Medical Literature Analysis and Retrieval System Online (MEDLINE), Latin American and Caribbean Literature in Life Sciences databases Saúde (LILACS) and in the directory of journals Scientific Electronic Library Online (SciELO), published between 2010 and 2020.

The research universe consisted of online articles in the health field, related to the proposed theme. The sample was determined considering the following inclusion criteria: being available in the selected databases, contemplating the proposed theme, being available in full text, being article-type publications, in the period from 2010 to 2020.

The exclusion criteria were: dissertations and theses, as well as complete texts that are unavailable and do not include the proposed theme. 36 articles were found, of which answered the guiding question. The data from the studies included in the research were categorized, analyzed and discussed, establishing direct relationships with the theoretical foundation in focus.

This is a documentary and observational cohort study, linked to a larger project, the sample of this study is composed of several patients whose hospitalizations occurred between March 2010 and October 2020 in federal public hospitals.<sup>13</sup>

This sample has the power (1-b) of 83.5%, 89% and 73.5% to detect, respectively, the medians of duration of exclusive, total and mixed breast feeding. The sample power was calculated a posteriori, based on the information produced in the data matrix of this study and took into consideration, respectively, ( $x = 22,96$ ;  $DP = 11,21$ ); ( $x = 77,37$ ;  $DP = 65,31$ ); ( $x = 278,0$ ;  $DP = 13,21$ ); ( $x = 419,53$ ;  $DP = 248,25$ ); ( $DP = 79,4$ ); ( $DP = 220,55$ ). The calculations took into account the significance level ( $\alpha$ ) of 5% for two-tailed tests.<sup>14</sup>

## Results and discussion

According to the critical and selective on sent to quantify the theme, different to pics arose to be discussed: nursing and dental care for patients in the ICU, palliative care for the elderly with covid-19 and associated comorbidities.<sup>15</sup>

With COVID-19 in the health system, the content of the publications showed the difficulties faced by each country in the face of the

pandemic and the need for health systems support to health professionals, related to safety equipment and others for assistance to patients hospitalized by COVID-19, including mechanical ventilators in Intensive Care Unit (ICU) environments.<sup>15</sup>

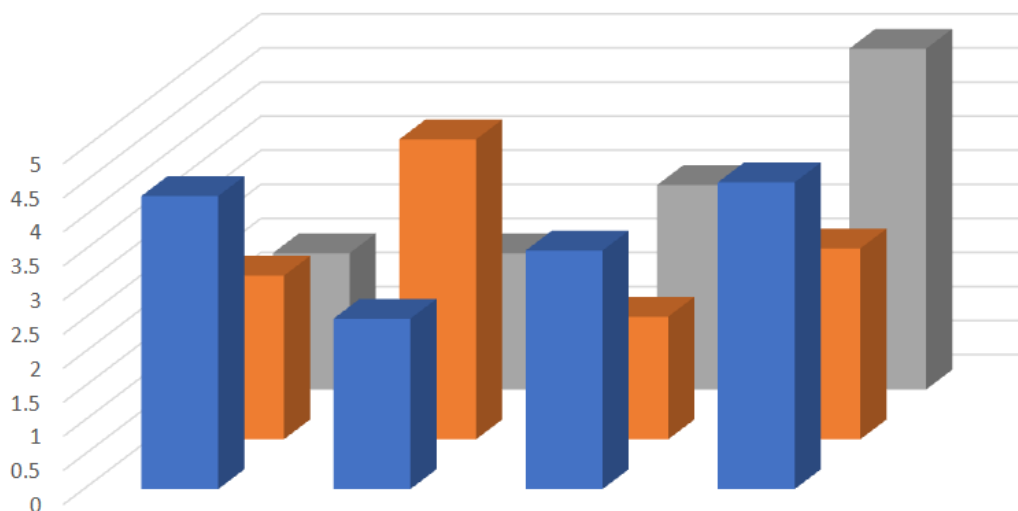
The responsibility of the professionals working on the front line against the disease stands out: The high contagion rates and the serious effects caused on a relatively high percentage of the population raised to the limit of our sanitary system (Spain, 9); Hospitals are preparing for the unpreparable: the increase of patients in the ICU. Number of critically ill patients with COVID-19 admitted to the ICU grew 20 times in less than three weeks (Portugal, 6). In the category Work process of the health team and its concern with contagion, the content of the journalistic articles pointed out the daily concern of the press with the work process of the health professionals and with their own safety, due to the risk of contagion with the COVID-19 that increases as more patients are treated in the ICU.<sup>16</sup>

In this sense, it is possible to observe, in the different countries, matters that highlight safety as something essential for everyone: At the end of the shift, the ritual of removing the equipment is even more demanding, because for each piece removed it is necessary to disinfect the hands. Already properly equipped and disinfected, the team members, mostly nurses, enter the unit where hard work begins

to save the sick. Lusa was able to assist the placement of a patient in the prone position to improve his oxygenation which required a real team work.<sup>17</sup>

The results obtained by the word clouds technique supported the construction of the thematic categories and show the reflection of the pandemic, its implications for the care of the elderly and the measures proposed in different countries for the control of the new corona virus. In all analyzes, COVID-19 was identified as the main and recurring theme.<sup>18</sup>

However, in the selected content, there are words that refer to elderly patients, which denotes a concern of the press in disseminating news about the care to this portion of the population. Some differences between countries regarding the dissemination of news about hospital care for the elderly with COVID-19 are noticeable in Figure 1 and in the thematic categories identified, especially in European countries, which experienced the severity of the disease before America, facing the filling of hospital seven before the first cases of deaths were registered in Brazil. This means that the articles published on this subject in Brazil in the period under investigation did not yet fully address the issue investigated, as occurred in the other countries that are part of this study.<sup>19-22</sup>



**Figure 1** This graphic demonstrates the veracity of the text according to professional experiences and the description of the article for the current reasoning.

In category 1, the importance of providing human and material resources for the care of individuals with acute respiratory failure stands out, since the major problem reported in the media survey is the ability of health systems to deal with fluctuations in demand, especially with the increase in elderly patients, who need respiratory support. The difficulties in offering hospital care to more severe patients are highlighted due to the very restriction of the ICU hours, the limited physical capacity and the insufficient number of professionals prepared for this assistance. In addition, it should be mentioned that professionals working in the ICU environment generally experience physical exhaustion, receive low wages and deal with inadequate working conditions.<sup>23-26</sup>

It is a fundamental characteristic of this experiment to point out that human (intensive) care takes a long time in this aspect, which increases the waiting time for critical patients for this resource. Such a situation requires assistance protocols and imposes on professionals a difficult decision to choose who can live or die according to these humanistic and unequal needs.<sup>27-30</sup>

The ethical issues presented in category three are due to the increase in the number of patients who need ICU beds in countries such as Spain, Italy and the United States, which has imposed some ethical dilemmas on health professionals, especially with regard to the choice of who may or may not use a mechanical respirator. This situation can be seen in Figure 1, with its determined words, and identified in category 3 of the analyzed news papers. As the emerging epidemic is leading to a substantial increase in the number of patients requiring prolonged ventilatory support for acute respiratory failure, severe imbalances have occurred between the population's clinical needs and the general availability of ICU resources.

## Conclusion

Hospital care for the elderly with COVID-19 was quickly disseminated in all countries and points out the need to reorganize health systems to serve the elderly population due to the fragility and the lack of trained professionals to offer assistance to this clientele. The pandemic of the new coronavirus, COVID-19, reached all

countries gradually and the journalistic articles analyzed disclosed the worrying reality of health care for the elderly population and the lack of training for health professionals in this situation.

The number of deaths gradually increased and brought health systems closer to collapse day after day, especially in Europe, where the proportion of elderly people is higher. This situation imposed on health professionals an ethical dilemma also widely publicized by these media: deciding between the life and death of the elderly. The theme proposal was the elderly, but only in the newspapers of two countries, United States and Portugal, there was mention of the nurse, although restricted.

The pandemic in the 21st century brings us important reflections for the planning of health systems, preparation and valorization of professionals to serve people of different age groups, especially the elderly. Thus, one of the challenges facing society, health managers and health professionals is the implementation of policies suitable for the elderly, which ensure their rights. At the same time, and no less important, health professionals must be guaranteed the right and the duty to follow the ethical precepts of human rights, as per the oath of the profession, so as not to harm the principles of human dignity.

About half of Brazilian intensive care units offer some type of dental service at the bedside, despite varying in the details of this provision. Dental work in intensive care units is irregular at the national level, and the provision of services is performed in a non-standard way. Institutions offering the bedside dentistry service tended to be more organized in terms of training and oral health service delivery protocols.

With regard to palliative care, the patient expects from the professional who takes care of him a human engagement, the establishment of a bond, a personal availability to be-with and, in this sense, investing in the relationship with the patient requires establishing strategies that humanize the assistance. However, they go beyond the ontic instance only when singling out the patient; otherwise, they become more techniques and standards to be followed.

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## Conflicts of interest

Author declare that there is no conflict of interest.

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