

# Importance of hospital dentistry in the comprehensive treatment of the COVID-19 patient



**Anna Torrezani**

*Dental Surgeon – PhD and Master in Stomatology –  
Specialist in CTBMF and Stomatology – Qualified in Hospital Dentistry.*

*Anhanguera University Center of São Paulo- Vila Mariana, UNIAN, Brazil*

In 2019 a new coronavirus (SARS CoV - 2) was announced by the China Center for Disease Control and Prevention in the city of Wuhan an etiological agent causing respiratory disease in humans and spreading rapidly around the world, where the World Health Organization (WHO) has classified the Covid-19 epidemic as a public health emergency of international concern.

In Covid-19, the most important complication diagnosed is the respiratory aggravation caused by viral pneumonia, which can progress to severe acute respiratory syndrome (SARS). As the virus spreads through the lungs, patients experience shortness of breath, desaturating and requiring intensive care unit (ICU) admission, orotracheal intubation (OTI), and invasive mechanical ventilation (IMV).

The increase in OTI and mechanical ventilation (MV) exposes individuals to additional health risks, by triggering possible opportunistic infections associated with IMV, called ventilator-associated pneumonia (VAP), which set in after 48 to 72 hours after intubation, where bacteria, fungi and viruses from the oral cavity affect the lower airways, leading to longer hospital stays, as well as increasing the percentage of patient deaths. The complication of VAP leads to an increase in length of stay, higher hospital costs, and mor-

tality around 20% to 60%.

In view of the above, the relationship between the oral cavity and lower airways emphasizes the need for the dentist to integrate the multidisciplinary team of hospitals, in order to care for patients with illnesses that make self-hygiene impossible. The dental surgeon specializing in hospital dentistry is the most qualified professional to control microorganisms in the oral cavity and eradicate infectious foci in these patients hospitalized in ICUs who have a dependence on oral health care.

In addition to VAP, patients who receive MV manifest worsening of periodontal and periapical infections, fungal infections, hyposalivation and oral and labial ulcerated lesions associated with OTI, as well as microaspirations that flow through the orotracheal tube, facilitating the transport of microorganisms from the oral cavity to the lungs, and it is not uncommon for respiratory tract infections to be the most related to septicemia. The patient in severity in the ICU with OTI is most often polydrug, leading to hyposalivation, decreasing oral lubrication, as well as decreasing its immune protective function by immunoglobulins, lysozyme, mucins, peroxidase and cystatins, facilitating colonization by pathogens. Some scientific evidence suggests that there are angiotensin-converting enzyme-2 (ACE2) recep-

tors present in large proportions in the epithelial cells of the tongue and salivary glands, where the virus binds, and there may be an interruption of the functions of oral keratinocytes and epithelial cells of the salivary glands, which would explain the appearance of dysgeusia, ulcers and bleeding of the oral cavity in many individuals infected by SARS-CoV-2.

Normally, a sequence of steps is followed for the care of the patient with Covid-19 in the ICU with MV, where orotracheal suction is first performed, followed by oral hygiene with gauze soaked in 1% hydrogen peroxide or 0.12% alcohol-free chlorhexidine in movements of the posteroanterior region of the oral cavity, aspiration and ending with oral lubrication with artificial saliva.

Given the understanding of the importance of maintaining oral hygiene and evaluating the presence of oral lesions in intubated patients, the need for hospital dentists in ICUs is perceived, since he is the professional able to integrate the multidisciplinary team of patient care, preventing and treating possible infectious foci, in addition to instructing and training the nursing team for this care, as the correlation between the oral cavity and systemic health is already known, which can interfere considerably in the evolution of the patients' condition.

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