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## LETTER TO THE EDITOR

## Virtual assistance in oral medicine for prioritizing oral cancer diagnosis during the COVID-19 pandemic



### To the Editor:

Oral cancer has been considered an important health problem in many parts of the world.<sup>1</sup> In Brazil, it is one of the top 10 most frequent malignancies accounting for about 15,000 new cases per year.<sup>2</sup> In addition, the majority of the cases are diagnosed at advanced clinical stages, significantly worsening the prognosis.<sup>3</sup> In the last decades, many strategies have been used in an attempt to modify this scenario. Educational campaigns targeted at the general population regarding risk factors, main clinical features, and what to do when a suspicious oral lesion is observed are among the most emphasized topics. Political decisions, such as the antismoking law No. 12.546/2011 instituted in 2011 by the Brazilian Government prohibiting smoking in closed spaces, such as restaurants and pubs, also had a significant effect on risk reduction. Another important measure aiming to reduce the incidence and to improve the percentage of early diagnoses of oral cancers is screening, particularly focusing on individuals with a known history of exposure to risk factors, especially tobacco and alcohol intake.<sup>4</sup>

With the new challenge of the coronavirus disease (COVID-19) pandemic, many of these efforts are going to have a negative impact with the population paying more attention to this new disease and the need for the health care system to focus emergently on its treatment.<sup>5,6</sup> The COVID-19 pandemic has forced many professionals and institutions to adopt innovative approaches to better manage this situation. Because the COVID-19 is highly contagious and can spread human to human via respiratory secretions, health care workers, particularly dentists, anesthetists, head and neck surgeons, ophthalmologists, and otolaryngologists are at a high risk of infection.<sup>7</sup>

With the great uncertainty in the knowledge regarding the novel virus, a group of researchers from different parts of the world have published recommendations based on very recent evidence.<sup>5</sup> Bann et al.<sup>6</sup> have made recommendations for otolaryngologists to be implemented in their practice. Chan et al.<sup>8</sup> have reported their experience in Hong Kong and have affirmed that health care workers who manage airway procedures

are at higher risk of COVID-19 infection. Vargas and Servillo<sup>7</sup> have emphasized that professionals who perform procedures that produce aerosols are at a very high risk and have recommended ways to improve safety in dealing with patients with tracheostomy.

In addition, many elective procedures have been canceled to maintain resources and to prevent health system collapse. However, in the case of cancer, the decision to postpone elective surgeries is not so simple. Therefore, a framework for prioritizing head and neck surgery during the COVID-19 pandemic has just been published by a group from the state of California in the United States.<sup>9</sup>

Telemedicine has been used with some benefits, particularly in remote areas where adequate structure to treat patients is lacking. It can be an alternative not only for patient education but also to contribute to diagnosis and treatment. Results of clinical imaging, radiography, computed tomography, and histopathology can be evaluated, and tumor board conferences can be performed via telemedicine. The American Academy for Otolaryngology – Head and Neck Surgery offers to aid physicians in the use of this technology. In this time of the COVID-19 pandemic, this tool has gained special attention.<sup>10</sup> Telemedicine has been used also for diagnosing oral lesions. In this context, Carrard et al.<sup>11</sup> evaluated the participation of 71 dentists and 18 physicians from primary care services and observed that referrals of patients for face-to-face consultation have been reduced from 96.95% to 35.1%.

In this challenging COVID-19 scenario, virtual assistance to patients with cancer and to health care professionals, particularly dentists, could help prioritize higher-risk cases, while avoiding face-to-face contact. In this way, only patients with highly suspicious malignant lesions would be referred to the oral medicine team for clinical examination and appropriate procedures, such as incisional biopsy. However, after specimens are sent to the oral pathology laboratory, there is a risk of diagnostic delay because many laboratory personnel are working only on a part-time basis. Consequently, there is also a possibility of delay in referrals to head and neck surgeons. During the COVID-19 pandemic, patients with cancer face an additional challenge in that medical examinations necessary for cancer staging and treatment planning are now not being performed. It is expected that hospitals will become overcrowded soon, and available beds and intensive units for postoperative recovery will become unavailable. Even though it is a complex and challenging scenario, telemedicine in oral medicine has potential to, at least in part, support clinicians and patients and consequently can contribute to reducing unnecessary hospital visits and help preserve the resources for those who need them the most during this extraordinary period.

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## REFERENCES

1. International Agency for Research on Cancer. Global Cancer Observatory. Available at: <https://gco.iarc.fr/>.
2. Instituto Nacional de Câncer. Câncer de boca. <https://www.inca.gov.br/assuntos/cancer-de-boca>.
3. Abrahão R, Perdomo S, Pinto LFR, et al. Predictors of survival after head and neck squamous cell carcinoma in South America: the Interchange Study. *JCO Glob Oncol*. 2020;6:486-499.
4. Freddie Bray, Jacques Ferlay, Isabelle Soerjomataram, Rebecca L. Siegel, Lindsey A. Torre, Ahmedin Jemal, Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries.
5. Kowalski LP, Sanabria A, Ridge JA, et al. COVID-19 pandemic: effects and evidence-based recommendations for otolaryngology and head and neck surgery practice. *Head Neck*. 2020. <https://doi.org/10.1002/hed.26164>. [Epub ahead of print].
6. Bann DV, Patel VA, Saadi R, et al. Impact of coronavirus (COVID-19) on otolaryngologic surgery: a brief commentary. *Head Neck*. 2020. <https://doi.org/10.1002/hed.26162>. [Epub ahead of print].
7. Vargas M, Servillo G. Improving staff safety during tracheostomy in COVID-19 patients. *Head Neck*. 2020. <https://doi.org/10.1002/hed.26163>. [Epub ahead of print].
8. Chan YJK, Wong EWY, Lam W. Practical aspects of otolaryngologic clinical services during the 2019 novel coronavirus epidemic: an experience in Hong Kong. *JAMA Otolaryngol Head Neck Surg*. 2020. <https://doi.org/10.1001/jamaoto.2020.0488>. [Epub ahead of print].
9. Topf MC, Shenson JA, Holsinger FC, et al. A framework for prioritizing head and neck surgery during the COVID-19 pandemic. *Head Neck*. 2020. <https://doi.org/10.1002/hed.26184>. [Epub ahead of print].
10. Prasad A, Carey RM, Rajasekaran K. Head and neck virtual medicine in a pandemic era: lessons from COVID-19. *Head Neck*. 2020. <https://doi.org/10.1002/hed.26174>. [Epub ahead of print].
11. Carrard VC, Roxo Gonçalves M, Rodriguez Strey J, et al. Tele-diagnosis of oral lesions in primary care: the EstomatoNet Program. *Oral Dis*. 2018;24:1012-1019.