

What has Changed in the Daily Practice of the Dental Imaging Center During the COVID-19 Pandemic?

¿Qué ha Cambiado en la Práctica Diaria del Centro de Imágenes Dentales Durante la Pandemia de COVID-19

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ABSTRACT: A new type of RNA coronavirus (SARS-CoV-2) related to acute respiratory syndrome (SARS) and responsible for COVID-19 disease has spread around the world, resulting in an unprecedented pandemic. COVID-19 has become an international public health emergency and countless people and sectors have been affected. In this context, individual and collective protection measures were taken, mainly in health care. Dentistry, considered a high risk area, had to undergo changes in relation to biosecurity, including in radiological clinical practice. Thus, this letter aims to comment on these changes during visits to dental imaging centers.

KEY WORDS: COVID-19 pandemic, dental practice.

Dear editors,

The pandemic caused by the spread of the RNA coronavirus (SARS-Cov-2), highly contagious, has been widely debated worldwide. Considered an important historic landmark, the COVID-19 infected so far more than 21 million people causing around 766 thousand fatal victims (<https://covid19.who.int/>/<https://covid19.who.int/>). The lifestyle in all countries has undergone dramatic changes. From the health-care professionals considered as frontline, to the less affected sectors, everyone needed to adapt to the isolation and social distancing on behalf of avoiding contagion.

The COVID-19 outbreak had negative impacts on all of the person's physical and mental health, mainly in high-risk activities, such as the field of dentistry (Doriguêto *et al.*, 2020). Unfortunately, the pandemic is extending without a definite deadline, however, many people have already returned to their activities with some restrictions, according to the restriction measures of each country. A large part of the population prefers not to undergo dental treatments during this health crisis due to the high possibility of contagion produced in the offices by contaminated aerosols and the contamination of saliva (Bizzoca *et al.*, 2020). In any

case, due to the risk of contamination, patients seek medical attention only in cases of pain or urgency, causing changes in the routine of dental offices and also in dental imaging centers, since now the indication of imaging exams has different purposes.

In short, the purpose's overview of dental radiography exams has also undergone significant changes. In general, the number of patients undergoing these exams has decreased to less than half when compared the same period last year (March through July 2019). Most of the requests were no longer considered essential, such as dental implant surgery planning, which showed a significant decrease. On the other hand, the requests for evaluation of patients with pain and/or dental fractures increased considerably in relation to the same period of 2019, indicating a predominant demand for only urgent and emergency cases, with a dramatic reduction of other treatments. In this scenario, adding the fact that saliva contains a high load of SARS-Cov-2 (Sabino-Silva *et al.*, 2020), extraoral exams, such as panoramic radiographs and cone-beam computed tomography, should be chosen when possible.

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It is worth mentioning that, as in any other sectors, there are several protocols to reduce the risk of contagion in dental imaging radiology centers, such as the use of hand sanitizer, which includes the use of 70 % alcohol-based for at least 20 seconds (Wan *et al.*, 2020) and measurement of patients' body temperature, who should always be wearing masks. In addition, frequent cleaning of environments with sodium hypochlorite and cleaning of all equipment after use with quaternary ammonium is recommended. In addition to these precautions, additional measures can be taken, such as a detailed anamnesis completed before the exam and the provision of disposable gloves for all patients as soon as they arrive at the clinic. In addition to protecting the user, these measures also promote safer conditions for clinic employees, who must wear the N95 mask, face-shield and disposable uniforms, changed every four hours.

Moreover, the authors recommend to the dental imaging center that the digital flow be put into practice in an integral way and as soon as possible. With the implementation of this workflow, reports can be available on-line to the applicants and patients, without

compromising visualization and diagnosis or the patient-professional relationship. In this way, it is avoided that patients have to obtain their reports personally or that employees have to deliver the exams to the requesting dentist; this decreases physical contact, making it difficult to form a possible flow of contamination.

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RESUMEN. Un nuevo tipo de coronavirus de ARN (SARS-CoV-2) relacionado con el síndrome respiratorio agudo (SARS) responsable de la enfermedad COVID-19 se ha extendido por todo el mundo y ha provocado una pandemia sin precedentes. COVID-19 se ha convertido en una emergencia de salud pública internacional y un sinnúmero de personas y sectores se han visto afectados. En este contexto, se tomaron medidas de protección individual y colectiva, principalmente en el ámbito de la salud. La atención dental, considerada de alto riesgo, tuvo que sufrir cambios en relación con la bioseguridad, incluida la práctica clínica radiológica. Así, esta carta tiene como objetivo comentar estos cambios durante los atendimientos a los centros de imagenología dental.

PALABRAS CLAVE: pandemia COVID-19, práctica dental.

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