

# Endodontics in COVID-19 Times

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*World Journal of Dentistry* (2020); 10.5005/jp-journals-10015-1737

On March 15, 2020, a news article published in The New York Times by Lazaro Gamio stated that the dentists are the most at peril because of the COVID-19 pandemic, generating a huge concern in the population about the risk of cross-infections in dental settings. The main reasons for such a dangerous position are the aerosol arising from the ultrasonic devices during professional hygiene procedures and rotating engines during dental treatments, mainly in restorative dentistry and endodontics.<sup>1,2</sup> Based on such premises, many countries have released guidelines to take specific precautions during the epidemic to reduce the risk of contagion, that is, promoting remote consulting and social distancing in the waiting rooms, enhancing environmental disinfection and personal protective equipment. One of the most common recommendations was to avoid the unnecessary generation of droplets and aerosol, which is generic advice that resulted in different clinical behaviors, especially in the endodontic field.

During deep caries excavation and access cavity preparation,<sup>3</sup> if possible, clinicians preferred to use slow-speed micro-motor without water spray to prevent aerosol production treatment. Many clinicians tended to perform a partial treatment (pulpotomy with or without canal instrumentation) for interim relief instead of a complete treatment (pulpectomy), and a few of them choose to treat emergency cases only with antibiotic and analgesic drugs<sup>4</sup> to avoid chairside treatments. Surgical endodontic treatments<sup>5,6</sup> were also reduced because of the combined risk of blood and aerosol contamination. Overall, the use of rubber dam was increased, and more attention was paid to cover also the nose of the patients with the rubber dam. There was also a tendency to avoid unnecessary use of magnification and radiographic devices that needed special care in being first protected from aerosol and then properly disinfected after use. When possible, the use of extraoral devices, like low-dose small-field CBCT,<sup>7,8</sup> was preferred instead of intraoral 2D radiographic devices. Apex locators were also preferred to determine the working length. High-volume suction devices were also adopted but their use was more controversial; to be effective they need to be positioned very close to the source of aerosol, thus limiting the clinicians' operative field. The use of sterile packages of endodontic instruments and burs was also increased. To date, even if lockdown is ceased in most of the countries, these changes are still being commonly adopted by the dentists who started again routine activity. They are considered as safety measurements, easy to apply and with reasonable costs, that can allow to perform endodontic treatments in a proper way with minimal risk.

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**How to cite this article:** Testarelli L, Di Nardo D, Obino FV, et al. Endodontics in COVID-19 Times. *World J Dent* 2020;11(3):165.

**Source of support:** Nil

**Conflict of interest:** None

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