

## Dental practitioners' role in the assessment and containment of coronavirus disease (COVID-19): Evolving recommendations from the Centers for Disease Control

As the spread of the virus SARS-CoV-2 that causes coronavirus disease (COVID-19) is causing significant concern not only among the general public but also health care providers who manage the symptomatic patients, the techniques and strategies to manage the patients are rapidly evolving. According to the Centers for Disease Control (CDC),<sup>1</sup> the disease that has presumably originated in Wuhan, Hubei province of China, thought to have originated and spread from bats to humans, now may have spread worldwide as person to person transmission increased similar to other betacoronavirus, SARS-CoV and MERS-CoV. On 11 March 2020, the World Health Organization (WHO) identified the COVID-19 outbreak as a pandemic. There is no known vaccine to prevent or any medication to definitively treat at this point in time. The only intervention recommended at this time would be isolation and nonpharmaceutical intervention (NPI).

The role of the dental practitioner needs discussion in this situation. Both the American Dental Association (ADA)<sup>2</sup> and the CDC developed guidelines for emergency dental treatment of patients who are either exposed and symptomatic, exposed and asymptomatic, and diagnosed with COVID-19. If a patient has respiratory symptoms and has traveled outside of the country or potentially acquired from another person who may have traveled to active COVID-19 areas globally, triaging the patient using the CDC-developed flowchart is recommended.<sup>3</sup>

1. Always wear personal protective equipment.
2. Assess the symptoms related to lower respiratory illness like persistent cough and shortness of breath along with fever. Many dental practitioners are turning to tele-dentistry as a safer and alternative way to perform the initial triage of patients with dental emergencies. Once identified for care, the patient can be seen at the dental care facility.
3. Isolate the patient to a private room, provide a standard surgical mask to the patient, and check the temperature and confirm the lower respiratory symptoms.

4. Alert the health department of your city, county, or province and inform them of the potential case and seek instructions for specimen collection and laboratory testing to confirm COVID-19.
5. Discharge the patient with instructions for self-isolation, home care, as well as instructions for hospitalization if the infection escalates.

The following recommendations from the American Dental Association<sup>2</sup> are to be adhered to for overall protection of patients, staff, and auxiliary dental staff to contain the spread of the virus in addition to the standard precautions and CDC guidelines already in place.<sup>4</sup>

- All dental health care personnel should receive the flu vaccine as part of the standard precautions.
- All dental health care personnel should practice proper respiratory hygiene/cough etiquette and should inform all their patients to follow the same.
- Standard disinfection protocols<sup>4</sup> should be followed for all dental operatories without fail, as well as for the high occupancy areas such as the patient waiting rooms, lunch areas, and laboratory space within the dental office.
- Hand hygiene – either washing with soap and water or by using an alcohol-based hand sanitizer should be followed as always. An antimicrobial soap can be used if the hands are visibly soiled. Use other personal protective equipment like masks and gloves as always while treating patients.
- Each patient should be asked if they have traveled outside of the country in the past 2 weeks and, if so, identify the areas traveled. In addition, the patient should be asked (or via a questionnaire when seated in the waiting room) for possible high body temperatures over 100°F, persistent cough, sore throat, body aches, flu-like symptoms, shortness of breath, vomiting or diarrhea, stomach pain, runny nose, or painful and itchy eyes.



- Dental health care providers in some high-risk areas (in cities where there are large numbers of COVID-19 cases as well as related deaths) are temporarily restricting the elective aerosol-releasing procedures.
- Nasopharyngeal, oropharyngeal, or sputum samples are to be collected for patients under investigation (PUI) if the dental practitioner is involved in the sample collection for further testing.

Currently, real-time reverse transcription polymerase chain reaction (rRT-PCR) testing is used to confirm patients with COVID-19, and takes about 3 hours to obtain the results. Several test kits were developed within the last few weeks that use serum plasma or whole blood samples giving results within minutes with accuracies of up to 95%. Biolidics (Singapore) has developed one such rapid diagnostic test kit that delivers positive result in 10 minutes. Several South Korean manufacturers have also developed COVID-19 rapid test kits that are now widely available. Abbott Laboratories (USA) has received emergency use authorization (EUA) from the US Food and Drug Administration (FDA) for the fastest available molecular point-of-care test for the detection of novel coronavirus (COVID-19), delivering positive results in 5 minutes and negative results in 13 minutes.

The number of confirmed COVID-19 cases worldwide exceeded 807,612 as of 31 March 2020, and confirmed death toll is around 39,453 as of 31 March 2020 among those diagnosed.<sup>5</sup> Social distancing and self-isolation have proved to be good deterrents for the spread of COVID-19, as seen from the public health interventions in China and South Korea. With appropriate information from the state, national, and global health agencies, dental health care providers can continue to provide high-level clinical care, contain the spread of SARS-CoV-2, and protect their staff and patients; since the information and recommendations are constantly evolving, visiting the World Health Organization website<sup>6</sup> as well as the CDC website<sup>1</sup> frequently will keep the dental practitioner aware of the COVID-19 related news, alerts, and guidelines, to be an informed health care provider. In this issue, Abramovitz and colleagues<sup>7</sup> provide a detailed review of dental operatory considerations and clinical aspects of triaging and treating someone with either suspected or diagnosed COVID-19. ■■

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