



## Corona Virus Update for Dentist

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Coronavirus disease which was originated in Wuhan, China, has become a major public health issue for the world. The World Health Organization stated it as a public health emergency of international concern. This disease has spread in 34 countries, with a total of 80,239 laboratory-confirmed cases and 2,700 deaths.

### Transmission

The COVID-19 has shown animal-to-human transmission, followed by sustained human-to-human spread via respiratory droplets and contact transmission.

### Source

Symptomatic COVID-19 patients have been the main source of transmission and asymptomatic patients and patients in their incubation period are as carriers.

### Incubation period

The incubation period of COVID-19 is 5 to 6 days on average and can be as long as 14 days.

### Death rate

the fatality rate (cumulative deaths divided by cumulative cases) of COVID-19 is lower than that of SARS (severe acute respiratory syndrome and MERS (Middle East respiratory syndrome and higher than that of seasonal influenza.

### Susceptibility

Current observations shows that people of all ages are generally susceptible and those who are in close contact with symptomatic COVID-19 patients are at higher risk of infection.

### Clinical manifestations

The majority of patients with this disease represent relatively mild symptoms. patients develop fever and dry cough, can have

shortness of breath, fatigue, muscle pain, confusion, headache, sore throat, diarrhea, and vomiting. Most patients showed bilateral pneumonia, with ground-glass opacity and bilateral patchy shadows being the most common patterns. Some patients may develop serious complications, such as acute respiratory distress syndrome, arrhythmia, and shock.

### Diagnosis and treatment

The diagnosis of COVID-19 is based on a combination of a history of travel in affected region 14 days prior to symptom onset, clinical symptoms, CT imaging findings, and laboratory tests (e.g., reverse transcriptase polymerase chain reaction [RT-PCR] tests on respiratory tract specimens).

### Management

The management of COVID-19 is supportive mainly and to control the source of infection; use infection prevention and control measures to lower the risk of transmission; and provide early diagnosis, isolation, and supportive care for affected patients.

### Infection control protocols

Hand hygiene has been considered the most critical measure for reducing the risk of transmitting microorganism to patients (Larson., *et al.* 2000). The practice of good hand hygiene is recommended. The use of personal protective equipment, including masks, gloves, gowns, and goggles or face shields, is advised. As respiratory droplets are the main route of SARS-CoV-2 transmission, particulate respirators such as N-95 masks are recommended for routine dental practice.

### Infection control in dental clinic

Dental patients who cough, sneeze, or receive dental treatment including the use of a high-speed handpiece or ultrasonic instru-

ments make their secretions, saliva, or blood aerosolize to the surroundings. Dental apparatus could be contaminated with various pathogenic microorganisms after use or become exposed to a contaminated clinic environment. Thereafter, infections can occur through the puncture of sharp instruments or direct contact between mucous membranes and contaminated hands (Kohn., *et al.* 2003).

### Recommendations for dental practice

Dentists should take strict personal protection measures and avoid or minimize operations that can produce droplets or aerosols. The 4-handed technique is better for controlling infection. The use of saliva ejectors with low or high volume can lower the production of droplets and aerosols.

### Patients screening

During the outbreak of COVID-19, dental clinics are recommended to measure and record the temperature of every staff and patient as a routine procedure and ask patients questions about the history of contact or travel. Patients should wear medical masks and their temperature should be measured. Patients with fever should be referred to hospital. If a patient has been to epidemic regions within the past 14 d, quarantine for at least 14 d is suggested. In areas where COVID-19 spreads, nonemergency dental practices should be postponed (Kohn., *et al.* 2003; Li., *et al.* 2004; Samaranayake and Peiris 2004).

### Oral examination

Preoperative antimicrobial mouth rinse can be used to reduce infection. Procedures which can induce coughing should be avoided. Aerosol-generating procedures, such as the use of a 3-way syringe, should be minimized as much as possible. Extraoral dental radiographies, such as panoramic radiography and cone beam CT, are preferred over intraoral radiography.

Thus, by following these guidelines and precautions dentist can prevent the spread of this pandemic caused by Corona virus.

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