



ORIGINAL RESEARCH PAPER

Prosthodontics

GENERAL RECOMMENDATIONS FOR DENTAL HEALTH CARE DURING COVID-19- - A REVIEW

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ABSTRACT

A novel coronavirus has resulted in an ongoing out break of viral pneumonia in china. Person-to-person transmission has occurred. This article is a brief overview of the epidemiology, symptoms and routes of transmission of this novel infection. In addition, specific recommendations for dental care.

INTRODUCTION

What is a coronavirus?

Coronavirus are a large family of viruses that can cause respiration infection ranging from the common cold to more severe diseases like middle east respiration syndrome [MERS] and severe acute respiration syndrome [SARS] COVID -19 attaches the airways and can be transmitted by respiration droplets expelled through the nose or mouth when the individual coughs or sneezes, it can also be transmitted indirectly through the contact of the hands or mucous membranes with the contaminated inert surface^[1].

According to the world health organization, one can reduce the chances of being infected or spreading COVID-19 by taking some simple precautions.

1. Regularly and thoroughly clean your hands with an alcohol-based hand rub or wash them with soap and water.
2. Maintain at least a 1 metre [3 feet] distance between yourself and anyone who is coughing or sneezing
3. Avoid touching eyes, nose and mouth.
4. Make sure you and the people around you, follow good respiration hygiene. Covering your mouth and nose with your bent elbow or tissue when you cough or sneezing. Then dispose of the used tissue immediately.
5. Stay home if you feel unwell. If you have a fever, cough and difficulty breathing, seek medical attention and call in advance.
6. Keep up to date on the latest covid-19 hotspot [cities or local areas where covid-19 is spreading widely]. If possible, avoid travelling to places especially if the person is older or having diabetes, heart or lung disease.

CDC- Centres For Disease Control Prevention.

Addition Recommendation For Clinical Practice Are Provided^[2]

1. During the outbreak of covid-19, dental clinic are recommended to establish pre-check triages to measure and record the temperature of every staff and patients as a routine procedure.
2. Pre operative antimicrobial mouth virus could reduce the number of microbes in the oral cavity.
3. Dental emergencies can occur and exacerbate in a short period of time and the before need immediate treatment. Rubber dams and high volume saliva ejectors can help minimize aerosol or splatter in dental procedures. The treatment planning of tooth fracture, luxation, or avulsion is dependent on the age, the traumatic severity of dental tissue, the development of the apex, and the duration of tooth avulsion.
4. In the regions that are heavily affected with covid-19 patients waiting in dental clinic should also be provided with medical masks. If aerosol also producing procedures are unavoidable, dental practitioners need to wear gowns facial

shield or goggles.

Recommendations For Dental Education.

1. During the outbreak period, online lectures, case studies and problem based learning [PBC] tutorials should be adopted to avoid unnecessary aggregation of people and associated risk of infection.
2. Schools should encourage students to engage in self-learning, make full use of online resources and learn about the latest academic developments.
3. During this period, it is easy for students to be affected by disease associated fear and pressure, dental schools should be prepared to provide psychological services to those who need them.

On January 8, 2020 a novel coronavirus was officially announced as the causative pathogen of covid-19 by the Chinese centre for disease control and prevention^[3].

The majority of patients experienced fever and dry cough, while some also had shortness of breath, fatigue and other a typical symptoms, such as muscle pain, confusion, headache, sore throat, diarrhea and vomiting^[4].

Among patients who underwent chest computed tomography [CT], most showed bilateral pneumonia, with ground glass opacity and bilateral patchy shadows being the most common patterns^[5].

Among hospitalized patients in wuhan, around one-fourth to one-third developed serious complications, such as acute respiratory distance syndrome, arrhythmia and shock and were therefore transferred to the intensive care unit^[6].

Older age and the existence of underlying co morbidities [e.g., diabetes, hypertension and cardiovascular disease] were associated with poorer prognosis^[7].

Diagnosis And Treatment

The diagnosis of covid-19 can be based on a combination of epidemiologic information [e.g. a history of travel to or residence in affected region 14 days prior to symptom onset],. Chemical symptoms, CT imaging findings, and laboratory tests [e.g., reverse transcriptase polymerase chain reaction [RT-PCR] tests on respiratory tract specimens] according to standards of either the WHO [2020a] or the national health commission of china^[8]. It should be mentioned that a single negative RT-PCR test result from suspected patients does not exclude infection.

Clinically, we should be alert of patients with an epidemiologic history, covid-19-related symptoms and \ or positive CT imaging results.

So far, there has been no evidence from randomized-nCoV

treatment, so the management of covid-19 has been largely supportive.

Currently, the approach to covid-19 is to control the source of infection, use infection prevention and control measure to lower the risk of transmission, and care for affected patients^[9].

A series of clinical trials are being carried out to investigate interventions that are potentially more effective^[10].

Infection Control In Dental Settings

Dental patients who cough, sneezing or receive dental treatment including the use of a high-speed hand piece or ultrasonic instruments make their secretions, saliva or blood aerosolize to the surroundings. Dental apparatus could be contaminated with various pathogenic micro organisms after use or become exposed to a contaminated clinic environment. Therefore, infections can occur through the puncture of sharp instruments or direct contact between mucous membranes and contaminated hands^[11].

CONCLUSION

Due to the unique characteristics of dental procedures where a large number of droplets and aerosol could be generated, the effective infection control protocols has to be followed.

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