



COVID-19 Outbreak-Key Considerations as a Dentist

Amit Nagar*

Professor, Department of Orthodontics and Dentofacial Orthopaedics, Faculty of Dental Sciences, King George's Medical University, Lucknow, India

Introduction

The outbreak of corona virus disease 2019 (COVID-19) in Wuhan-China has evolved rapidly into a public health crisis and has spread exponentially to the other parts of world. On 11th Feb 2020 WHO named the novel viral pneumonia as "Corona virus Disease (COVID-2019)". While the international committee on taxonomy of virus (ICTV) suggested this novel corona virus name as "SARS-CoV-2" due to phylogenetic and taxonomic analysis of this novel corona virus. Due to compact dental setting dental professionals are at high risk for nosocomial infections and can become potential carriers of the disease. These risks can be attributed to unique dental intervention procedures like aerosol generation, handling of sharps and proximity of dentists to patients oropharyngeal region. If adequate precautions are not taken the dental office can expose patient to cross contamination. Dental practitioners should be better prepared to identify a possible COVID-19 infection and refer the patient to appropriate treatment center.

Infection Control in Dental Settings

Droplet and aerosol transmission of 2019-n CoV is of the most important concern in Dental Clinics and hospitals because it is hard to avoid the generation of large amount of aerosol and droplet mixed with Patient's saliva and blood during dental treatment. We must be fully aware how 2019-n CoV spreads and how to identify patients having 2019-n CoV infection [1,2]. A proper dental and medical history should be taken which should include history of any febrile respiratory illness (fever and cough), travel to an area having high incidence of COVID-19 and exposure of the person to any known case of COVID-19. Fever should be recorded with non-contact forehead thermometer. Hand hygiene is considered to be the most important measure in reducing risk of transmission as the virus can stay on the surface from hours to days depending on the type of surface. PPE (gloves, gowns, goggles, face shield and N-95 or FFP-2 masks) should be used. 1% hydrogen peroxide or 2% povidine iodine is recommended as a mouth rinse before any procedure to reduce the salivary load of oral microbes. Use of rubber dam also minimizes production of saliva and spatter of aerosol and blood. Extra high volume suction should be used. Manual devices like Carisolv® (mix of NaOCl and amino acids) and hand scalars are recommended for caries removal and scaling to minimize generation of aerosols [3,4]. Anti-retraction high speed dental hand piece can reduce the backflow of oral bacteria into the tubes and dental unit. If a suspected or confirmed case of COVID-19 is treated the medical waste generated it should be collected in double layered yellow medical waste package bags and gooseneck ligation should be used. The bags should be marked and disposal done as per waste management protocols. Other recommendations include use of disposable mirror, probes, syringes and tweezers, extra oral imaging instead of intraoral to avoid cough reflex, minimal use of ultrasonic instruments, high speed hand pieces, 3 way syringes etc. and use of negative pressure treatment rooms.

References

1. Peng X, Xu X, Li Y, Cheng L, Zhou X, et al. Transmission routes of 2019-nCoV and controls in dental practice. *Int J Oral Sci.* 2020;12:9.
2. Meng L, Hua F, Bian Z. Coronavirus Disease 2019 (COVID-19): Emerging and Future Challenges for Dental and Oral Medicine. *J Dent Res.* 2020;99(5):481-487.
3. Management of Acute Dental Problems during COVID-19 Pandemic. Scottish Dental Clinical Effectiveness Programme. 2020 Mar.
4. Revised Guidelines on Clinical Management of COVID-19. Government of India Ministry of Health & Family Welfare Directorate General of Health Services. 2020 Mar.

Article Information

DOI:	10.31021/jddm.20203163
Article Type:	Mini Review
Journal Type:	Open Access
Volume:	3 Issue: 5
Manuscript ID:	JDDM-3-163
Publisher:	Boffin Access Limited
Received Date:	17 April 2020
Accepted Date:	15 May 2020
Published Date:	19 May 2020

*Corresponding author:

Amit Nagar
Professor
Department of Orthodontics and Dentofacial
Orthopaedics
Faculty of Dental Sciences
King George's Medical University
Lucknow, India
E-mail: drnagar05@gmail.com

Citation: Nagar A. COVID-19 Outbreak-Key Considerations as a Dentist. *J Dents Dent Med.* 2020 Apr;3(5):163.

Copyright: © 2020 Nagar A. This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 international License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.