

The Open Dentistry Journal

Content list available at: https://opendentistryjournal.com



EDITORIAL

2019-nCoV: The Role of Dental Practices to Avoid the Risk of Cross Infection

Lauren Bohner^{1,*}, Melanie Maus¹ and Marcel Hanisch¹

¹Department of Oral and Maxillofacial Surgery, Hospital University Münster, Münster, Germany

Since the end of 2019, a pneumonia infection has been emerged and spread worldwide. The novel mutation of coronavirus, known as 2019-nCoV, is transmitted through direct or indirect contact with oral, nasal and eye membranes. Typical symptoms are fever, cough and myalgia, followed by headache and diarrhea [1,2]. To date, the Pandemic has 690,000 cases and approximately 33,000 related deaths [3].

Not only the symptomatic patients but also those without any clinical symptom and in the incubation period are a source of transmission. Considering that contaminated aerosol and saliva can be an infection source, dental practices are an important person-to-person transmission route. In this regard, dental clinicians should be aware of preventive management to protect professionals and patients [4,5].

The first measure to prevent any infection with 2019-nCoV among professionals and patients is avoiding the treatment of infected persons, especially those with acute febrile phase. Thus, the suspension of elective treatments and the treatment only of emergencies is recommended. When possible, infected patients should not be treated at the same dental chair-side of other patients [4].

Prior to the treatment, risk patients should be recognized by means of a questionnaire consisting of questions about fever, respiratory problems, travels or contact with infected persons in the last 14 days. Furthermore, body temperature should be measured. In case of negative answers to all questions and absence of fever, the patient can be normally treated. If the response is "yes" to any of those questions but no fever is presented, it is recommended to perform the treatment 14 days after the related event. However, if the body temperature is higher than 37.3°C, the patient should be placed in quarantine [4,5].

During the dental treatment, hand hygiene is one of the most important measures to reduce the transmission risk. Hand

* Address correspondence to this author at the Department of Oral and Maxillofacial Surgery, Hospital University Münster, Münster, Germany; Tel: +49 (0)2 51 / 83-4 70 02; E-mail: lauren.bohner@ukmuenster.de

disinfection should be made before and after each dental treatment. Furthermore, the direct hand contact with eyes, mouth and nose should be avoided. As usual, barrier-protection equipment, as eyewear, mask, gloves and caps are strongly recommended. Furthermore, the disinfection protocol after each patient consultation should be respected [6].

With regard to the patient care, use of mouth-rinse containing oxidative agents, such as of rubber dam, should be used to avoid aerosol and to reduce the number of microorganisms. In addition, procedures that generate aerosol, as a 3-way syringe, should be avoided. In case of dental trauma or extraction need, absorbable suture is recommended.

Unfortunately, further evidence-based data regarding the treatment of patients with 2019-nCoV are still not available. However, preventive measures can reduce the infection spread significantly. Dental professionals must be aware of the transmission sources, symptoms and risks of 2019-nCoV in order to ensure the patient health and well-being.

REFERENCES

- [1] Sun P, Lu X, Xu C, Sun W, Pan B. Understanding of COVID-19 based on current evidence. J Med Virol 2020. In Press [http://dx.doi.org/10.1002/jmv.25722]
- [2] Guo YR, Cao QD, Yan Y. The origin, transmission and clinical therapies on coronavirus disease 2019 (COVID-19) outbreak – an update on the status. Mil Med Res 2020; 7:11 [http://dx.doi.org/10.1186/s40779-020-00240-0]
- [3] Coronavirus disease 2019 (COVID-19) outbreak situation. 2020; 58
 Available from: www.who.int/emergencies/diseases/novel-coronavirus-2019
- [4] Meng L, Hua F, Bian Z. Coronavirus disease 2019 (COVID-19): emerging and future challenges for dental and oral medicine. J Dent Res 2020.22034520914246 Epub ahead of print [http://dx.doi.org/10.1177/0022034520914246] [PMID: 32162995]
- [5] Peng X, Xu X, Li Y, Cheng L, Zhou X, Ren B. Transmission routes of 2019-nCoV and controls in dental practice. Int J Oral Sci 2020; 12(1): 9
 - [http://dx.doi.org/10.1038/s41368-020-0075-9] [PMID: 32127517]
- [6] Kohn WG, Harte JA, Malvitz DM, Collins AS, Cleveland JL, Eklund KJ. Centers for Disease Control and Prevention. Guidelines or infection control in dental health care settings-2003. J Am Dent Assoc 2004: 135: 33-47.

© 2022 The Author(s). Published by Bentham Open.



This is an open access article distributed under the terms of the Creative Commons Attribution 4.0 International Public License (CC-BY 4.0), a copy of which is available at: https://creativecommons.org/licenses/by/4.0/legalcode. This license permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.