

Emergency Medicine and Trauma Care Journal

Letter to Editor

Bittmann S, et al. Emerg Med Trauma. EMTCTJ-100040

Front-Line Healthcare Workers in COVID-19: The Way from Elbow-Bump Greeting to Closing Body Bags

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Citation: Bittmann S, Weissenstein A, Villalon G, Moschüring- Alieva E, Bittmann L, et al. (2020) Front-Line Healthcare Workers in COVID-19: The Way from Elbow-Bump Greeting to Closing Body Bags. Emerg Med Trauma. EMTCTJ-100040

Received date: 14 April, 2020; **Accepted date:** 21 April, 2020; **Published date:** 29 April, 2020

COVID-19 is a serious coronavirus disease that is spreading all over the world. As of the date of this publication, 1,696,588 people have been infected with COVID-19 and 105,952 deaths have been recorded in 184 countries (World Health Organization, situation report 83, 12th April 2020). This overwhelming mortality rate requires intensive research activities around the world. To date, the number of deaths per day in the United States is still killing, indicating an uncontrollable state of infection spread. SARS-CoV-2 binds to the angiotensin II receptor in various tissues of the human body, particularly in the oral cavity and tongue. SARS-CoV-2 requires the cheerful TMPRSS2 to activate this inertia. SARS-CoV-2 uses the ACE2 receptor as a gateway to the lungs. The SARS-CoV-2 virus binds with the spike protein to the ACE2 receptor. The S protein has a functional multiphase furin cleavage site at S1 / S2 by insertion of 12 nucleotides and shows changes in the receptor binding region (RPD) with the inertia of 6 RBD amino acids. COVID-19 is more common among African Americans in the USA (Science 10th April 2020).

The comfort and the emotional loading capacity of the employees in the health service are key components for the maintenance of the essential health services during the outbreak of the COVID-19 virus (Coronavirus). Hence, it will be important to anticipate the charges linked with this work and to release support for employees in the health service. The supervision and assessment of the psychic health and the well-being of the employees in the health service will be important, just as the efforts to guarantee a successful reunion with colleagues if they are infected. Occupied in the health service will get used to taking part in frequent formal and informal trainings. Additional organizational strains during the COVID-19 outbreak should be continued and can show a measure of the stress reduction. Employees of the health service must be trained in specific details for the transmittance of the COVID-19 virus, when and how patients and possibly members of the family should be protected; the use of personal protective equipment;

with the demand for quarantine and isolation; and moral decision-making about Triage-and Surge problems.

Both studies examined the expression of angiotensin II receptors in the human skin, the possible synthesis of Angiotensin II at that time and looked for the first examination into the physiological functions. AT1 and AT2 receptors were found in the epidermis and in the dermal vascular walls [1-5].

If this hypothesis is right, the whole medical staff with protective gear must work and all people should pay attention to the fact that a narrower skin contact can transfer COVID-19. Hence, the carrying of facial protection, oral masks (FFP2 / 3) and medical gloves of the biggest meaning [6]. COVID-19 was found on ICU 4 meters away from the patient, found under shoes of healthcare workers in the room. Closer studies on aerosol research revealed that in coughing, droplets were exhaled till 2 meters from the patient. Only exhalation describes a distance of 1,5 m away from the patient and sneezing supports a distance of up to 6 meters of large spray droplets bigger than 0.1 mm (www.medium.com). Therefore, it of upmost importance to inform medical staff, that essential protective gear with face shield, hand gloves and closed skin regions of the own body have to be protected against droplets containing Coronavirus SARS-CoV-2.

Many employees of the health service worldwide, doctors and nurses have lost her life and their family lost them, the list is long [7]. The youngest person in this list was a nursing assistant from Watford, England, aged 24 [7]. The narrowed contact with COVID-19 patients in the patient's care seems to raise the infection risk. COVID-19 is deadly with severe patients who develop a high virus load, ARDS, pneumonia and therefore bad gas exchange and sometimes a catastrophic medical course with cytokine storm and fall of T cells, in particular cd4 / 8 cells. Nobody thinks about the stress medical staff has to treat COVID-19 patients working sometimes with 2 or three mouth masks, face shield, hand gloves

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which they have to change after each procedure when changing the work on another patient. Working 8-12 hours in this sweaty protective gear the whole day shift at hospital and ICU.

Many healthcare workers have infected with COVID-19. Three months after outbreak, the list is long of medical staff workers lost their life only want to help severe ill patients with unknown transmitter potential (7). Medical staff coordinators seem to underestimate the infection potential of COVID-19, close contact to these patients seems to induce further rapid spreading of the virus to other individuals. In different ICU, they check medical health care workers nearly every day with rapid SARS- CoV-2 testing. Medical health care workers on COVID-19 patients live in permanent fear against own infection and bringing it home to their relatives. The management of protective gear in these medical front staff workers should be closely analyzed due to current research aspects. Hundreds of health care workers have died in COVID-19 pandemic. A deadly game.

References

1. NYC Health: 2019 Novel Coronavirus (COVID-19). Interim Guidance for Home and Community Healthcare Workers.
2. ECDC Technical Support (2020) Infection prevention and control and preparedness for COVID-19 in healthcare settings.
3. Steckelings UM, Henz BM, Wiehstutz S, Unger T, Artuc M (2005) Differential Expression of Angiotensin Receptors in Human Cutaneous Wound Healing. *Br J Dermatol* 153:887-893.
4. Yu Zhao, Zixian Zhao, Yujia Wang, Yueqing Zhou, Yu Ma, et al. (2020) Single-cell RNA expression profiling of ACE2, the putative receptor of Wuhan 2019-nCoV. *bioRxiv* 2: 10-12.
5. Steckelings UM, Wollschläger T, Peters J, Henz BM, Hermes B, et al. (2004) Human Skin: Source of and Target Organ for Angiotensin II. *Exp Dermatol* 13:148-154.
6. Bittmann S, Luchter E, Villalon G (2020) COVID-19: The Importance of Mouth Mask and Good Virostatic Mouth Hygiene to Prevent Infection. *J Paediatr Neonatal Med* 2:112.
7. www.medscape.com.