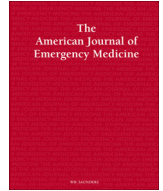




Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Re: Leg-heel chest compression as an alternative for medical professionals in times of COVID-19



To the Editor,

We read with great interest an article by Ott et al. [1] who bring up the topic of compression of the chest to the legs and heels as an alternative for medical professionals in the times of COVID-19 due to the increased distance from the patient's airway and the limitation of contact from the infectious aerosol. Unfortunately, in our opinion, the alternative method provided by the authors has many limitations regarding its widespread use. One of them is a potential balance problem for people performing these types of chest compressions, which can lead to breakage of chest compressions, the consequences of which can be dramatic for both the patient and the medical staff, who may be injured during a fall. Also, the PPE it holds can break and expose it potentially more than conventional compression methods. Also, the control of the strength and depth of compressions, especially without long-term training of medical personnel in this type of techniques, may lead to their ineffectiveness and may be too shallow or too strong, which may lead to very serious damage not only to the ribs and sternum, but also to internal organs. People who perform such compressions may also be at risk of missing the correct compression site more frequently and further injure the patient. We should also consider whether such methods make sense to use among medical personnel who are constantly exposed to the aerosol with pathogens in COVID-19 wards and the distance during compression will not make it absent from the medical staff. Remember that the conditions performed during the simulation are not the same as in hospitals, and in case of sudden cardiac arrest, the use of this method may be impossible or very difficult in many cases.

Conflict of interest disclosures

The other authors have no example conflicts of interest to disclose.

Funding/support

No funding was secured for this study.

Role of funder/sponsor

None.

Clinical trial registration

Not applicable.

References

- [1] Ott M, Krohn A, Bilfield LH, et al. Leg-heel chest compression as an alternative for medical professionals in times of COVID-19. *Am J Emerg Med*. 2021. <https://doi.org/10.1016/j.ajem.2021.09.007> ISSN 0735-6757.

Michal Pruc, MS

Research Unit, Polish Society of Disaster Medicine, Warsaw, Poland

Lukasz Szarpak, Assoc. Prof. PhD, MBA, DBA, LL.M.

Institute of Outcomes Research, Maria Skłodowska-Curie Medical Academy, Warsaw, Poland

Maria Skłodowska-Curie Bialystok Oncology Center, Poland

*Corresponding author at: Maria Skłodowska-Curie Medical Academy, Solidarnosci 12 Av., 03-411 Warsaw, Poland.

E-mail address: Lukasz.szarpak@gmail.com