

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

# Resuscitation

journal homepage: [www.elsevier.com/locate/resuscitation](http://www.elsevier.com/locate/resuscitation)

## Letter to the Editor

# Cardiopulmonary resuscitation in the COVID-19 era – Will the risk-benefit shift in resource-poor settings?



Dear Editor,

The COVID-19 pandemic is challenging the way we practise medicine around the world. We are being forced to adapt as we respond to the ever-changing landscape in which we are practising. A careful risk-benefit assessment is needed for everything we do, and in many cases has led to the shut-down of services that would previously have been seen as essential (urgent cancer investigations, as an example).

Cardiopulmonary resuscitation (CPR) is recognised as a potential aerosol-generating procedure,<sup>1</sup> which may pose a significant risk of transmission of SARS-CoV-2 to healthcare workers and other patients in the vicinity. A case report from 2003 found evidence of transmission of SARS-CoV (the virus that causes severe acute respiratory syndrome (SARS)) during CPR.<sup>2</sup> Despite wearing N95 respirators, at least one of the nine healthcare professionals involved in the resuscitation attempt acquired SARS. There is a similar case report of transmission of Middle East Respiratory Syndrome (MERS) during CPR in South Korea in 2015.<sup>3</sup> As the global COVID-19 pandemic spreads, the risk of nosocomial transmission is increasingly being recognised and drastic measures are being taken to mitigate this risk. The Resus Council (UK) has published updated guidelines, recognising the importance of protecting staff and the risk of generating “an infectious aerosol” during chest compressions.<sup>1</sup>

CPR is widely practised around the world and is the default position in many societies for a patient suffering cardiac arrest. In view of the recognised risks of CPR in the context of COVID-19, policy makers should carefully evaluate the risk-benefit of this procedure. In resource-limited settings, without easy access to adrenaline, defibrillators or intensive care facilities, the minimal benefits of CPR are unlikely to justify the risks to healthcare staff. Policy makers should plan ahead and ensure that healthcare professionals are aware of the risks and policies are in place to protect staff as the prevalence of COVID-19 increases.

## Conflict of interest

None.

## REFERENCES

1. Resuscitation Council UK Statement on COVID-19 in relation to CPR and resuscitation in healthcare settings. (Accessed on 28 March 2020, at <https://www.resus.org.uk/media/statements/resuscitation-council-uk-statements-on-covid-19-coronavirus-cpr-and-resuscitation/covid-healthcare/>).
2. Christian MD, Loutfy M, McDonald LC, et al. Possible SARS coronavirus transmission during cardiopulmonary resuscitation. *Emerg Infect Dis* 2004;10:287–93.
3. Nam H-S, Yeon M-Y, Park JW, Hong J-Y, Son JW. Healthcare worker infected with Middle East Respiratory Syndrome during cardiopulmonary resuscitation in Korea, 2015. *Epidemiol Health* 2017;39 November 12.

Peter Crook

*St Mary's Hospital, Imperial College Healthcare NHS Trust, Praed Street, Paddington, London W2 1NY, United Kingdom*

E-mail address: [peter.crook@cantab.net](mailto:peter.crook@cantab.net) (P. Crook).

<http://dx.doi.org/10.1016/j.resuscitation.2020.04.016>

© 2020 Elsevier B.V. All rights reserved.