Comment on: Personal protective equipment (PPE) for surgeons during COVID-19 pandemic: systematic review of availability, usage and rationing

Editor

We appreciate the elaborate review of a very contemporary topic and the issues related to PPE usage in this article[1]. Most studies up till now have, rightly, focused on the safety of health care professionals (HCPs) against accidental infection from their patients. However, as the end of this pandemic is still not in sight the cost and availability of Personal Protective Equipment (PPE) are equally significant areas of concern.

WHO, in 2014, had defined high aerosol-generating procedures (HAGP) as medical procedures that have been reported to be aerosol-generating and are consistently associated with an increased risk of pathogen transmission. In a surgical setting, other factors like duration of exposure, the proximity of HCP to aerosol, manipulation of high viral load tissue, and infectivity of organisms generated from the use of energy devices are equally important determinants[2]. Therefore, there is an urgent need to classify Aerosol Generating Procedures (AGP) not only on the basis of the type of surgery but incorporating these compounding factors too in the risk assessment. Resources can be conserved by recommending the type of PPE on the basis of types of AGPs and the degree of exposure of HCPs working in the operation room[3,4]. Moreover, a universal respiratory precaution adopted for normal AGPs has to be differentiated with specific respiratory precautions to be adopted for HAGP in order to optimize PPE use[5].

Crucial evidence on the risk of infection from AGPs is still materializing, nonetheless, any emerging guidelines/recommendations are expected to identify the high-risk procedures more on verifiable evidence rather than just probability. As the surgeons are considering rebooting of elective surgery wherever the pandemic has plateaued; research on such an important topic should be part of the resumption of surgical services.

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1 Jessop ZM, Doobs TD, Ali SR, Combellack E, Clancy R, Ibrahim N *et al*. Personal protective equipment for surgeons during COVID -19 pandemic: systematic review of availability, usage and rationing. *Br J Surg* 2020; **107**: 1262–1280.

2 Howard BE. High-Risk Aerosol-Generating Procedures in COVID-19: Respiratory Protective Equipment Considerations. *Otolaryngol Head Neck Surg* 2020; https://doi.org/10.1177/0194599820927335 [Epub ahead of print].

3 Stewart CL, Thornblade LW, Diamond DJ, Fong Y, Melstrom LG. Personal Protective Equipment and COVID-19: A Review for Surgeons. *Ann Surg* 2020; https://doi.org/10.1097/SLA.0000000000003991 [Epub ahead of print].

4 Wilson JM, Schwartz AM, Farley KX, Devito DP, Fletcher ND. Doing Our Part to Conserve Resources: Determining Whether All Personal Protective Equipment Is Mandatory for Closed Reduction and Percutaneous Pinning of Supracondylar Humeral Fractures. *J Bone Joint Surg Am* 2020; https://doi.org/10.2106/JBJS.20.00567 [Epub ahead of print].

5 Livingston EH. Surgery in a Time of Uncertainty: A Need for Universal Respiratory Precautions in the Operating Room. *JAMA* 2020; https://doi.org/10.1001/jama.2020.7903 [Epub ahead of print].