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Editorial

# Use of face shields during Covid-19 pandemic

The 2019 novel coronavirus disease (COVID-19) pandemic as labelled by the World Health Organization has had a global impact, affecting every aspect of daily life of people, businesses, manufacturers and even the healthcare sector.[1-3] The causative agent, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is spread from person to person by droplets, direct contact and aerosols have also been implicated.[1,4,5] The disease has resulted in several fatalities since its outbreak.

Use of personal protective equipment (PPE) as a control measure has been adopted. However, due to the global impact of the disease there have been shortages in availability of personal protective equipment such as medical masks, eye protection, gowns and gloves amongst others.[1,4,5]

Face shields are personal protective equipment devices that are used for the protection of the facial area and associated mucous membranes (eyes, nose, mouth) from splashes, sprays and spatter of body fluids.[6,7] Structurally, the face shield is composed of the visor, frame and suspension systems.[6] The dimensions of visors differ. Some are in half facepiece length extending to the mid-face, full facepiece length extending to the bottom of the chin and face/neck length that also covers the anterior neck.[6] Their widths also vary but it is recommended that visors should be of sufficient width to reach at least the point of the ear, in order to reduce the likelihood of splash going around the face shield to reach the eyes.[6] For improved infection control, crown and chin protection have also been recommended.[6]

Face shields have a number of advantages and these include being more comfortable, protecting a large portion of the face, with less retained facial heat, and less fogging than goggles. It is also less claustrophobic, with no impact on breathing resistance, no fit testing required and can be disinfected easily. Wearers do not need to be clean shaven and it is easy to don and doff, relatively inexpensive, with no impact on vocalization and can be worn concurrent to other face/eye PPE. Other advantages are that they do not impede facial nonverbal communication, there is reduced patient anxiety, it protects against self-inoculation over a wider facial area and may extend the useful life of a protective face mask when used concurrently.[6,7] The disadvantages include the glare, fogging, optical imperfection, some models not fitting properly over some respirators, bulkier than goggles and safety glasses and peripheral fit poorer than protective face masks.[6]

Due to the scarcity of face shields prompted by the COVID-19 pandemic, there have been many innovations in the production of face shields by manufacturers and health institutions in order to make them available.

Face shields are commonly utilized by healthcare workers. Utilization in the community as a control measure for COVID-19 has been advocated.[4,5] Others for whom its use have been recommended include teachers, emergency services staff, transport workers, those working in education and those in the retail, leisure and hospitality businesses.[8]

Face shields are generally not used alone but in conjunction with other protective equipment and are classified as adjunctive personal protective equipment.[6,7] A disturbing trend has been noticed among the general public where face shields are being utilized without face masks. The general public have been cautioned against this trend.[9] It is therefore imperative that face shields be used along with face masks and other protective equipment as control measure during the COVID-19 pandemic.

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**Received:** 10.12.2020, **Accepted:** 12.12.2020, **Published:** 25.03.2021

## REFERENCES

1. Khan MM, Parab SR. Simple economical solution for personal protection equipment (face mask/shield) for health care staff during COVID 19. Indian J Otolaryngol Head Neck Surg 2020: 1-5. Doi: 10.1007/s12070-020-01863-4. Epub ahead of print.
2. Verma S, Dhanak M, Frankenfield J. Visualizing droplet dispersal for face shields and masks with exhalation valves. Phys Fluids (1994) 2020; 32 (9): 091701.
3. Haleem A, Javaid M, Vaishya R, Vaish A. Effects of COVID-19 pandemic in the field of orthopaedics. J Clin Orthop Trauma 2020; 11 (3): 498-499.
4. Perencevich EN, Diekema DJ, Edmond MB. Moving personal protective equipment into the community: Face shields and

containment of COVID-19. JAMA 2020; 323 (22): 2252-2253.
5. Khan MM, Parab SR. Simple face shield for public as a crucial factor to slow aerosol transmission during unlock phase of COVID pandemic. Indian J Otolaryngol Head Neck Surg 2020: 1-2. Doi: 10.1007/s12070-020-02078-3. Epub ahead of print.
6. Roberge RJ. Face shields for infection control: a review. J Occup Environ Hyg 2016; 13 (4):235-242.
7. Lindsley WG, Noti JD, Blachere FM, Szalajda JV, Beezhold DH. Efficacy of face shields against cough aerosol droplets from a cough simulator. J Occup Environ Hyg 2014; 11 (8): 509-518.
8. Wain R, Sleat D. The role of face shields in responding to COVID-19. London: Tony Blair Institute for Global Change, 2020. Available from https://institute.global/policy/role-face-shields-responding-covid-19. [Last accessed on 2020 Oct 10].
9. Ankobea F, Donkor P. Joint press release from Ghana Medical Association (GMA) and the West African College of Surgeons (Ghana Chapter). July 2020. Available from www.businessghana.com. [Last accessed on 2020 Oct 10].

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**Website:** www.phmj.org

**DOI:** 10.4103/0795-3038.311934

**How to cite this article:** Echem RC. Use of face shields during Covid-19 pandemic. Port Harcourt Med J 2020;14:93-4.

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