



Improvised PPE to Combat COVID-19: A Simple Innovation to Combat a Pandemic

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Abstract:

Innovation is always the outcome whenever humans encounter a problem that has no previous solution. In the case of the pandemic caused by Covid-19 there has been sporadic shortages in the availability of personal protective equipment (PPE). In this article we describe our experience of producing a simple and inexpensive method for coupling a variety of snorkeling masks with anesthetic filters to produce PPE suitable for examining and undertaking procedures associated with otorhinolaryngology.

Methods:

This article describes a cheap and quick means of producing an effective and versatile silicone coupler forgoing the need for sophisticated and expensive technologies. This paper goes on to describe use of said coupling device to assemble a PPE mask from repurposed scuba gear.

Results:

We achieved an effective, cheap yet robust coupler which is adaptable to various snorkel masks and simultaneously attached to an HME filter to produce reusable PPE.

Conclusion:

There has been great morbidity and mortality from Covid-19 and it is incumbent on us to learn from this experience.



This device is geared towards but not limited to otolaryngologists who are exposed to aerosols from routine clinical examinations and procedures. In a time where the economy is under tremendous strain from new guidelines regarding strict PPE usage, our device aims to offset some cost and availability of the PPE without the need for designing and manufacturing new materials.

Biography

Krishna Brown received his MBBS degree with honors and intercalated Bachelor of Medical Science degree with honors at the age of 25 at the University of the West Indies Mona. He is currently a Clinical Fellow in Otolaryngology at the Royal London Hospital in the United Kingdom and an aspiring head and neck surgeon.

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