

Strengthening foundational microbiology for Infection Prevention & Control Competence in Health Care: Perspectives from COVID-19

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ABSTRACT

Coronavirus disease 2019 (COVID-19) pandemic is caused by a newly emergent Coronavirus strain named Severe Acute Respiratory Syndrome (SARS-COV-2). The disease begun in December 2019 in Wuhan City China where it is believed to have been transmitted to humans from an unknown animal reservoir. The public health, social and economic impact of the pandemic the world over has been detrimental. Health care providers at the frontline in the fight against COVID-19 are at the greatest risk of infection and so far many have been infected and some have succumbed to the disease. A range of factors responsible for healthcare provider infections have been cited including the complex nature of COVID-19 transmission, insufficient infection prevention & control (IPC) practices as well as inadequate compliance. Thus, it is imperative that healthcare providers have adequate knowledge of infectious diseases and microbial pathogens to comprehend the scale of risk for better recognition and response. Microbiological based concepts of IPC such as hand hygiene and aseptic techniques are essential in slowing down the spread of the virus. COVID-19 has proven that infectious agents can emerge from any region globally and can spread rapidly with ominous consequences to all humanity. This review discusses the role of college-learned (foundational) microbiology in health care provider preparedness for emerging infectious diseases with a focus on IPC competence.

Key words: Healthcare, COVID-19, Infection Prevention & Control, Microbiology, Preparedness

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