

Abstract Submitted
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Reducing Acquisition and Transmission of SARS CoV2: Role of Physician, Physicist in Public Health. NALINI SINGH, CHRISTOPHER MORES, MICHAEL KEIDAR, The George Washington University — Pandemic infection due to SARS-CoV2 has spread globally via respiratory droplets and via aerosol. Evidence of viral RNA has also been found in the stool and on environmental surfaces. Young children carry extremely high level of virus in their nose that is likely to contaminate surrounding environment requiring frequent decontamination. In addition, shortage of Personal Protective Equipment (PPE) in resource-constraint settings requires health care workers to wear them for prolonged period with compromised integrity. Need for immediate access to disinfection can obviate the need to wear such PPE. Innovative technology will help surface disinfection in the day care centers, school, hospitals and at home where ill individuals are quarantined. With expertise of physicians, physicists, and biomedical engineers these technologies can be developed and implemented by public health professionals to curtail person-to-person transmission of SARS CoV2. These technologies need to be low cost and widely used to reduce disease burden in resource-constraint settings where there is low hygiene. Newer technology using UV light and vaporized hydrogen peroxide has shown to reduce bacterial contamination in hospitals but not in community settings. In order to disinfect hospital rooms or PPE using these technologies, patients/health care workers cannot be in the room. One of the newer technologies like portable of cold plasma in inactivating the SARS-COV2 is being explored for widespread use. Antimicrobial properties of Cold plasma makes its attractive use during the era of SARS-CoV 2 pandemic.

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