



COMMENTARY

COVID-19 Responses: Unintended and Undiscussed Potential Consequences

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With the focus upon “flattening the curve”, ongoing non-COVID-19 medical care needs have been displaced and care delayed. These have included oncology care and cardiac care, and research interruption and delay as examples of unintended consequences of the COVID-19 response, the implications of which will be realized in upcoming years [1,2].

Reduction in health care productivity due to infection control recommendations that increase time of preparation and increase time of providers and staff and time between patients may drive costs and limit access to care. For example, time required to prepare the treatment room before and after people receive treatment, reduces the capacity to see numbers of people previously seen reducing access to care.

Not discussed are the potential microbiological and environmental outcomes among the myriad of unintended consequences. Our purpose is to raise these questions for future consideration.

Intensive use of PPE, including disposable (paper), one use items and plastic waste, increased laundering of reusable gowns in delivery of health care and by the public are piling up fast! Evidence of necessary use and awareness of potential environmental impact are of importance.

The continual and widespread use of disinfectants on surfaces and hands may have impacts not yet discussed. These include skin and mucosal irritation, respiratory

tract irritation and potential triggering of respiratory sensitivity and systemic absorption. This includes the potential of sprays for environmental clearing including in streets/public transportation, offices and schools. The potential impact of disinfection in risk in urban wildlife has been shown reported [3]. In the school setting, exposure to children has not been considered. Exposure of school children to repeated personal disinfectant applications and environmental sanitation should at a minimum be monitored for potential positive and harmful effects. Not discussed has been the potential for selection of resistant organisms, which has been seen throughout the history of antimicrobials including antibiotics, antifungals and antivirals. The specter of selection of potentially resistant organisms may haunt mankind for years to come.

Another environmental concern relates to disinfectants released in the air, water and landfills, potentially leading to impact upon water supplies and resources potentially affecting marine organisms including plankton, soil based organisms and the food supply as has been shown in common medical therapies including medications including antibiotics and hormone therapies (eg: Birth control medications) [4-6].

Risk remission of COVID-19 should be assessed with evidence of risk, and evidence of the effect of the response to reduce risk. The outcomes may include financial toxicity (increased cost of care) and reduced quantity of care delivered (reduced access to care). Environ-



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mental impact in its broadest sense and the microbial impact should be assessed. These issues deserve consideration, assessment and planning for the betterment of all.

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