Clinical Practice beyond Covid-19 Pandemic: Preparing for an Uncertain Future

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Abstract
The ongoing COVID-19 pandemic plaguing countries worldwide has created an unprecedented change for the global economy, especially healthcare institutions at the forefront. Acceleration of the online-offline integration is the need of the hour. Massive expansion of home-based care likely will be supplemented with Artificial Intelligence (AI). One particular sector that has the greatest potential to benefit from tele-health services is the rural sector across all countries. Telemedicine has shown to improve access to healthcare in these populations through a reduction in travel burden and decreased cost of care. Innovative arrangements between the private and the public sectors and digitalization are more crucial now than ever before. The digital media will play a rather more important role in connecting with prospective patients. Thus, as we unravel the mysteries of the ongoing pandemic there are opportunities in the future offering unique learning opportunities for the health care sector. Rationalizing and optimizing available resources with resilience shown on the coronavirus frontline during the crisis are some of most important lessons learnt during the crisis. To summarize, we are conducting a grand healthcare experiment in what healthcare is truly necessary and what is not.

Key words: COVID-19; Clinical Practice; Telemedicine; Artificial Intelligence.

Introduction
The ongoing COVID-19 pandemic plaguing countries worldwide has created an unprecedented change for the global economy, especially healthcare institutions at the forefront. Hospitals across the world are facing never before seen challenges that have augmented the development of technological innovations. The immediate response to the crisis has caused seismic shifts in how and where care is provided. As we navigate the complexities of the virus, one thing is certain - COVID-19 will be with us for the foreseeable future.

Acceleration of the online-offline integration is the need of the hour. A shift toward virtual ICU (eICU) models is underway at advanced tertiary care hospitals. Massive expansion of home-based care likely will be supplemented with Artificial Intelligence (AI). Virtual care via AI and phone-based diagnostics are expected to be a part of this expansion [1-3]. Separation of ancillary functions like imaging and lab tests, from core hospital operations is also required.
In today’s age, clinical information systems have become ubiquitous and indispensable in the care delivery process. The latest practice guidelines evolving with the changing nature of the illness should be made readily available at the point-of-care for clinical decision support. Paramedical staff has to adapt to the learning priorities and make sure their knowledge and skills are abreast to the requirements of the crisis [4].

Although the focus of tackling the direct impact of COVID-19 occupied the primary focus of many health organizations, the maintenance of core and critical clinical service is of no less importance. The initial reaction was to reduce or even cease non-critical medical services. Telemedicine affords continued medical care while adhering to strict social distancing. Patients at risk may benefit from staying at home, thereby reducing exposure to others, while continuing to receive medical care ensuring the existence of ‘trust premium’ does [5,6]. However, it correlates inversely with age, with older patients preferring to see a trusted provider, and may even be willing to pay more to visit a trusted provider. But surprisingly, Generation Z overwhelmingly believes they would pay more for an online-only provider and this idea of the future generation is the ‘convenience premium’ because for younger people more comfortable with technology, who are likely to utilize healthcare services less often, the convenience of an online provider outweighs the benefits to them of a trusted provider.

One particular sector that has the greatest potential to benefit from tele-health services is the rural sector across all countries. The current ratio of primary care physicians to patients in rural areas is alarmingly low. While the shortage must eventually be corrected, in the meantime it is vitally important to maximize the efficiency of the current workforce. Telemedicine can help do this by allowing physicians to see more patients by filling in time gaps in their day with virtual visits, providing rural hospitals with access to specialist care and even connecting with physicians in other countries through international telemedicine. It can act as an alternative option for these patients who already lack appropriate access to care. Telemedicine has shown to improve access to healthcare in these populations through a reduction in travel burden and decreased cost of care. Furthermore, it can bring care to patients who may have difficulty making it to their appointments, such as the elderly, disabled or those lacking sufficient transportation [7,8].

It is also important to mention the impact telemedicine may have on healthcare’s carbon footprint. Replacing in-person visits with telemedicine appointments has the potential to decrease carbon emissions via reducing travel to and from appointments.

However, on the downside, the most common barriers from the patient’s perspective are age, level of education, computer literacy and unawareness of services whereas providers will struggle with cost, reimbursement, legal liability, privacy confidentiality, security of data, effectiveness, old equipment and efficiency. Finally, the lack of physical contact between patient and provider creates challenges when performing a remote physical examination.

Innovative arrangements between the private and the public sectors and digitalization are more crucial now than ever before. Traditional means of healthcare marketing like word of mouth will eventually vanish and walk-ins will also be discouraged. The digital media will play a rather more important role in connecting with prospective patients. To adapt to this new normal and the changes in the upcoming decade, hospitals should ensure that their infrastructure is sufficiently ready to cope with the advent of digitalization.

To summarize, we are conducting a grand healthcare experiment in what healthcare is truly necessary and what is not. The healthcare system across the world is undergoing a transition similar to what happened in the late 90s when Blockbuster was the undisputed champion of the video rental industry and then Netflix arrived on the scene. Will Covid-19 give us the Netflix moment and be a game changer in the way we practice, that only time and our resilience will tell.

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**References**