

# Telehealth for global emergencies; challenges and implementation

Tanwir Khaliq<sup>1</sup>, Fibhaa Syed<sup>2</sup>

<sup>1</sup>Vice Chancellor, Shaheed Zulfiqar Ali Bhutto Medical University, Islamabad

<sup>2</sup>Assistant Professor, Dept. of Medicine, Shaheed Zulfiqar Ali Bhutto Medical University, Islamabad

## Address of Correspondent

Dr. Fibhaa Syed

Assistant Professor, Dept. of Medicine, Shaheed Zulfiqar Ali Bhutto Medical University, Islamabad

Email: fibhaasyed@gmail.com

**Cite this editorial as:** Khaliq T, Syed F. Telehealth for global emergencies; challenges and implementation. *Ann Pak Inst Med Sci.* 2020;16(1):1-2.

Once a generation, a pandemic wreaks havoc with mankind's existence and threatens its future. The novel corona virus, SARS-COV-2, causing the disease COVID 19, is the third corona virus to have jumped from animals to humans in the last two decades.<sup>1</sup> Although we have had recent outbreaks with Severe Acute Respiratory Syndrome and Middle East Respiratory Syndrome, both of them were confined to a small part of the globe.

A century back, the "Spanish Flu" which had mankind in its grip, took a year to spread around the world. However, thanks to technology, globalization, trade routes, the COVIDS 19 has reached every inhabitable continent in a matter of weeks. Pakistan like most other countries is waking up to a chaos, although many other countries like the USA, UK, Italy, France, and Germany are facing much tougher fights. It remains unclear whether our epidemiological curves will be matching theirs soon, but prepare we must for the worst because the COVID 19 has brought the mightiest of nations to their knees.

A significant proportion of cases in China were due to hospital transmission, and this trend is continuing in USA and Italy.<sup>2</sup> This means that measures are not only required to limit the spread of this respiratory virus in the hospital, but also to ensure that people with other diseases who come to the hospital don't contract COVID 19 from there. Additionally, we also need to ensure that where COVID 19 has no cure, we don't prevent people with potentially treatable yet life threatening conditions like Myocardial Infarction, Acute severe Asthma from reaching the hospital simply because we are overwhelmed with COVID 19.

At such pressing times, Telemedicine can offer many answers to our prayers. When worldwide health systems are collapsing while trying to brace SARS –COV-2, it is this tool which can actually help us raise a sabre against COVID 19.<sup>3</sup>

Telemedicine has the potential to help mildly ill patients, by supporting them at home and enabling them to stay at home, hence preventing their exposure to the acutely ill in the hospitals. Although the use of telemedicine has increased over the past couple of years, in many countries, Pakistan included it is still not used to the best advantage.<sup>4</sup>

Many patients with chronic conditions like diabetes, hypertension, cardiovascular disease, chronic kidney disease, pulmonary diseases, and other immunocompromised patients lie in the high risk category for COVID 19, however, they have their routine regular checkups due which cannot be overlooked; or they may have acute problems needing consultations. By using telemedicine, they can be triaged so that any minor problems or medication adjustment can be done without exposing them to the hospital, and if necessary, they can be directed to the hospital. This will not only benefit the patient but also reduce the burden on an already strained healthcare system. A 2015 Cochrane systematic review examined the impact of telehealth involving remote monitoring or videoconferencing compared with in-person or telephone visits for chronic conditions including diabetes and congestive heart failure. This review found similar health outcomes for patients with these conditions.<sup>5</sup>

Telemedicine can also be used to assess and triage for COVID 19. With a home based video interaction, the assessor can take a detailed history, a history of exposure, and the severity of symptoms. Additionally, a visual survey can also be performed and it can be decided whether the patient needs testing or hospitalization or can continue to be isolated at home.

Many patients with proven COVID 19 are sent home for isolation as they are stable. Regular daily checks on these patients can be made through telemedicine. This would help monitor the patient's recovery, ensure isolation protocol is being implemented and if the patient is deteriorating, he can be shifted to the hospital.

Additionally, at this time when the pollen count is high many asthmatics will require hospital care. Telemedicine can ensure that only those acutely ill and needing hospitalization reach the hospital and those that can be managed at home don't unnecessarily get exposed to COVID 19.

These are stressful times both for the healthcare personnel and the nation. Many people have anxiety related issues and all they need is to hear the calming voice of their healer, telling them all is and will be well. Our role in allaying the fears of this menace can also be fulfilled through telemedicine.

Whether we agree or disagree COVID 19 has taught us many lessons. It has helped us all search a little deeper for the true meaning of our existence, it has enabled us to

feel for each other in ways we could not fathom, shed tears for those we never met, and in these trying times, it has also changed the face of medicine as we know it. Telemedicine has gained ground at the time of COVID 19, but it's here to stay, that is for sure!

## References

1. Gates B. Responding to Covid-19—a once-in-a-century pandemic? *New England Journal of Medicine*. 2020;382(18):1677-1679. <https://doi.org/10.1056/NEJMp2003762>
2. Wang D, Hu B, Hu C, Zhu F, Liu X, Zhang J, et al. Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus-infected pneumonia in Wuhan, China [published online ahead of print February 7, 2020]. (*JAMA*) <https://doi.org/10.1001/jama.2020.1585>
3. Schulman KA, Richman BD. Toward an effective innovation agenda. *N Engl J Med*. 2019;380:900-901
4. Lacktman, N. and Rosen, D. 2017 Telemedicine and Digital Health Survey. (Available from:) <https://www.foley.com/en/files/uploads/2017-Telemedicine-Survey-Report-11-8-17.pdf> accessed: March 15, 2020
5. Flodgren G, Rachas A, Farmer AJ, Inzitari M, Shepperd S. Interactive telemedicine: effects on professional practice and health care outcomes. *Cochrane Database Syst Rev*. 2015: CD002098