

# COVID and Challenges

## *the Indian Medical Health Perspective*

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The world took a hard hit in the form of the COVID-19 pandemic, which started in late December 2019 and is still wreaking havoc across the globe. The virus spread rapidly throughout the world, leaving no country untouched, including India, which has also been adversely affected by this virus.

As COVID-19 is a recently discovered disease, not much was known about its pathogenesis or mode of spread. The lack of any specific treatment further added to the panic. Many of the masses were afraid to come forward with their symptoms due to a fear of being ostracized and this tendency to hide symptoms further complicated the scenario.

The fear and confusion caused was the foremost challenge faced by the Indian healthcare system. The authorities had the momentous task before them of answering incessant queries about this highly infectious disease as well as simultaneously trying to prepare safeguards against it.

The challenges were evident in statistics as well. India has a higher population density (464 people/Km<sup>2</sup>) and lower doctor-population ratio (0.8/1000) as well as hospital beds-population ratio (0.7/1000) than countries such as the USA, Italy and Spain.<sup>1</sup> The latest National Sample Survey Organization data from the Government reveals that approximately 160 million Indians do not have access to clean water for hand washing.<sup>2</sup> Poor etiquette of coughing, sneezing, spitting and nose blowing exacerbates the problem.<sup>3</sup>

Even before the exact mechanisms and routes of infection became clear, it was certain that the disease spreads from an infected person to those in close proximity to him/her. Thus, the need for facilities of isolation of infected persons arose. This required a huge infrastructure; something India, being a developing country, was not equipped for at the time. Furthermore, since a large number of patients remain either asymptomatic or exhibit only mild symptoms, it became very difficult to identify the cases.

The only test available for this disease was based on RT-PCR, but the Indian healthcare system had neither enough PCR labs at its disposal nor a sufficient supply of raw materials to carry out the required number of tests. This placed a huge burden on the health care sector since any suspicious patient along with any person that had been in close contact with him/her required quarantine until the PCR results were available, which sometimes took days.

The Indian healthcare system has adapted to handle a large number of patients at a time due to the highly dense population which often leads to crowding of patients. Furthermore, safety equipment for healthcare workers was in limited supply and thus had to be used judiciously. This again became a hurdle in controlling such a highly infectious disease. Also, since not much was known about the virus, a much more hardline approach had to be adopted to tackle the situation, with rigorous cleaning protocols being introduced and even the shutdown of entire hospitals due to one positive patient. As and when our knowledge evolved, new strategies were implemented and older ones modified, leading to a more robust and targeted handling of the pandemic.

Since the primary modality of control of the infection was breaking the chain of transmission, there was a great emphasis on the uses of masks, gloves, sanitizers etc. The demand for these skyrocketed overnight while the supply remained limited. This posed a monumental obstacle for health care workers in their battle against the virus. PPE kits were not commonplace back then and, given their pivotal role in the fight against SARS-COV-2, it was an enormous task for the government to procure and distribute an adequate number of kits to all places. However, the indigenous production of safety equipment soon increased manifold, increasing easy availability.

The mere procurement of safety equipment was, however, not enough. All healthcare staff had to be rigorously trained in the proper use of the equipment and other safety practices.

Not only the government but also other scientific bodies like IMA, API etc. ensured regular and repeated training sessions for all strata of healthcare workers through both hands-on training sessions and electronic media such as webinars. This training was of paramount importance since healthcare workers are at the highest level of exposure to the virus. Furthermore, they are a vital resource in this pandemic, without whom we cannot hope to control it. Not only the healthcare workers but also the masses had to be trained and educated regarding the general safety measures against the virus.

Active efforts regarding this were taken by the government through various audio-visual and print media to ensure the rapid dissemination of information. The medical fraternity also ensured the formulation of guidelines and protocols that allowed for the easy and rapid triaging of suspects from other patients attending the hospitals. All these measures ensured efficient control of the infection using minimal resources.

Another hurdle that stood tall was that of managing patients requiring intensive care. As more and more cases began occurring, the demand for oxygen supply and ICU beds followed suit. The initially predicted high mortality rates in the Indian subcontinent, primarily due to poor health infrastructure, lack of public awareness and overpopulation, added to the concern. Moreover, historically, India had been adversely affected by the Spanish flu pandemic of 1918, witnessing a very high mortality rate. Considering the dismal situation in western countries such as Italy, Spain and the USA added up to create an atmosphere of mass panic and hopelessness.

There was also a huge difference between the required number of mechanical ventilators and the available number, which was a cause of concern. Despite these seemingly insurmountable odds, the response from the country was very encouraging. The government deserves credit for

introducing measures such as complete lockdown, cessation of international and domestic travel as well as ensuring and other initiatives to cope with the pressures on the health system and controlling the spread of the virus.

As if the diagnostic and logistical challenges of COVID-19 were not enough, India also had to face many therapeutic challenges. Drug therapy for COVID-19 was not only costly, but many drugs also required the import of raw materials from other countries or were not manufactured in India. With international trade in complete shutdown, this was a major obstacle that required a quick solution. The demand for supportive therapy in the form of multivitamins, zinc etc. also saw a sudden upsurge during the pandemic. This was soon met by the increase in indigenous production by local pharmaceutical companies, which resulted in an uninterrupted supply nationwide.

COVID-19 has often been described as a “predictably unpredictable” disease due to its inconsistent clinical course. To date no reliable parameters have been established that can precisely predict the recovery or deterioration of a patient. This erratic behavior of the disease was another challenge for us since it resulted in prolonged ICU stays and an increased economic burden on the country. Also, monitoring patients required regular radiographic imaging through bedside X-rays and CT scans, which were not so freely available everywhere due to cost as well as infectious reasons.

COVID-19 requires isolation of the patient from his attendants too. This leads to both psychological and logistical problems. Both patients and attendants feel a general sense of anxiety and gloom that often manifests as uncooperative behavior, unnecessary complaints or even clinical depression.

Not being able to meet their loved ones also instills a general sense of mistrust among patients and their relatives. All of this leads to a corrupted doctor-patient relationship. Maintaining the trust and confidence of the patients as well as their attendants was another challenge for the Indian healthcare systems.

The absence of attendants also creates certain logistical problems. It became increasingly difficult to keep them abreast of the clinical course of the patient, to obtain consents for invasive procedures or to procure medicines for patients. Most importantly, it was an enormous task to obtain a reliable clinical history of the patient if he/she was disoriented or unconscious. These hurdles were overcome over time through change in clinical practice by an increased emphasis on objective laboratory parameters and physical examinations rather than history taking.

Though it is ranked much lower than Western countries in terms of health infrastructure, India has reported one of the lowest mortality rates in the world. Furthermore, even during the peak of the pandemic our recovery rates were among the highest in the world despite India being labeled as the diabetic capital of the world.

Many measures taken by the national and regional governments has helped to slow down the doubling rate of cases. It provided precious time for the healthcare infrastructure to respond to the demands across the country. The medical fraternity in the front line faced enormous challenge and it is undeniable that country's doctors and other healthcare staff have made huge contribution during these trying times. The early and aggressive response against the virus has led to reduction of cases to such an extent that in some places Level 1 Hospitals (for asymptomatic to mild disease

category patients) had to be shut down due to lack of patients.

However, the troubles are far from over. As we prepare for the second wave of the infection in winter, an unforeseen complication has arisen. Patients who had apparently recovered from the infection have begun experiencing what has been dubbed post-COVID sequelae. A persistent cough and breathlessness, associated with fibrotic changes in lung parenchyma, are occurring in a large number of previously recovered patients. Since the pathogenesis and exact treatment of post-COVID fibrosis is a matter of active research, management of these patients remains an onerous task. It has also not yet been reliably demonstrated whether infection with the virus provides lasting immunity. Hence, there can be no relaxation in safety protocols during the second wave, which will be a huge economic and psychological burden upon our country. The lack of an effective vaccine is another setback in our battle against this virus.

COVID-19 has wounded our country through its impact and has surely earned a place in history as one of the toughest battles India has had to fight. Despite the odds, we will continue to push forward and hope to one day overcome this notorious disease that has plagued our land.

#### REFERENCES:

1. Physicians (per 1000 people). (n.d.) Available: <http://data.worldbank.org/indicator/SH.MED.PHYS.ZS>.
2. Saaliq S. Limited clean water access in India spawns COVID-19 concerns, 2020. Available: <https://time.com/5805534/india-clean-water-hygiene-coronavirus>.
3. Tiwaskar M, Vora A. COVID-19 in India: What We have Accomplished so Far. JAPI 2020; 68: 11-12

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