

COVID-19: An Asian Perspective

By Vivek Kumar, Vijay Singh,
and Vivekanand Jha

Humans face an unprecedented situation today. Human coronavirus disease 19 (COVID-19) has caught everyone, regardless of borders and competence of existing healthcare infrastructures, completely unaware.

The way the disease has spread across the world over 4 months aptly reflects the meaning of “viral” as it is used in social media, where the term frequently describes something that garners immense worldwide publicity within a very short time. The sudden temporal clustering of numerous cases of unexplained rapidly progressive pneumonia leading to respiratory failure baffled clinicians in Wuhan, China, in December 2019. As could be expected, suspicion of some new affliction grew strong as cases started increasing, and patterns became recognizable by early January 2020.

Detailed investigations of this new affliction identified it as a viral pneumonia resulting from a new coronavirus, named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). By this time, the exponential increase in number of cases and pattern of spread among contacts of cases left no doubt that the virus spreads by droplet infection. As new cases continued to pour in, the burden soon overwhelmed existing healthcare facilities. No specific treatment was available, and estimates suggested that millions would be infected. The Chinese government announced a complete lockdown in Wuhan on January 23, 2020, to break the human-to-human chain of transmission. However, by this time, cases had been reported in South Korea, Japan, Thailand, and Singapore. One week later, the World Health Organization (WHO) acknowledged its presence in five WHO regions and declared it a Public Health Emergency of International Concern.



China swiftly mobilized its human and material resources toward containing COVID-19, enforcing physical and social distancing. People had to stay inside their homes and could come out only once in a few days in a staggered manner to buy essential commodities. Except for essential services, everything was brought to a halt. Doctors, paramedical personnel, and supplies were brought in from other parts of China. China had recorded approximately 84,000 cases and 4600 deaths resulting from COVID-19 by the third week of April 2020, constituting 3.5% of global cases and 2.8% of reported mortality due to the disease. That country has been able to drastically bring down new indigenous cases, and it now reports new disease mostly in individuals who have recently arrived from abroad. As China is lifting restrictions in Wuhan, the data suggest that continuation until April 2020, followed by staggered removal, would further alter the COVID-19 trajectory, leading to a secondary but smaller epidemic peak by the end of 2020. This could decrease the median number of infections by 92% by mid-2020 and by 24% by the end of 2020.

India is the next most populous country in Asia. Approximately 17,000 cases and 550 deaths had been reported in India by April 19, 2020. The initial patients had a history of international travel, but new patients who either are contacts of patients with confirmed cases or have no history of contact or travel are being increasingly recognized. These numbers are to be interpreted cautiously because testing has been limited to cases with a high degree of suspicion on account of a documented history of travel or exposure. Extensive screening, as has been done in countries like South Korea, has not been done in India.

The success of physical distancing, quarantine, and testing in China and South Korea has lessons for all Asian countries. South Korea had brought down the daily number of new cases from 851 in early March, to 18. Singapore has strictly enforced social and physical distancing by imposing legal provisions of fines and imprisonment.

Initially, in India, asymptomatic individuals returning from abroad were advised to self-quarantine at home, and suspected individuals or high-risk individuals were quarantined under Indian government surveillance. Inasmuch as these measures did not seem very effective and suspicion of community spread became higher, the Indian government called for a unique self-imposed home quarantine, referred to as Janata (public) curfew, on March 22, 2020. By this time, COVID-19 had already spread through Europe and the United States, with the WHO declaring that Europe was the new epicenter of the pandemic and the US would follow. In fact, the US, followed by Spain, now has the highest number of reported cases of COVID-19. A quick look at the disease trajectory in late March suggested that India was a close runner-up, with a delay of a few weeks.

At this stage, the Indian government took the unprecedented step of complete nationwide lockdown on all non-essential services. All residents were ordered to stay inside homes, wherever they were, for a 3-week lockdown, which has now been extended by 3 more weeks. The government suspended all modes of public transport, forbade the use of private vehicles except for medical emergencies or by personnel managing essential services, and completely isolated the country from the rest of the world.

Inasmuch as India has a federal structure, some states have instituted additional measures within their jurisdictions to strictly enforce these orders. Simultaneously, the government is expanding the scope of diagnostic testing and increasing diagnostic facilities. Public sector hospitals

have stopped elective outpatient clinics and have deferred elective procedures indefinitely. Hospitals are gearing up to screen and create dedicated isolation areas for COVID-19 patients. In view of the shortage of personal protective gear and equipment, efforts have begun to procure them from all sources, initiate or ramp up production in local industries, and rationalize distribution. Central and state governments have started identifying areas beyond hospitals that could be converted into isolation or quarantine facilities if the need arises. These unprecedented steps have been necessitated by a fragile situation, which could go out of control.

Malaysia, Pakistan, and Indonesia are other large Asian countries that have now reported >5000 cases with similar disease trajectories. Travel restrictions, quarantine of cases and contacts, and partial or full lockdowns have been enforced on similar lines. Nationwide lockdowns or curfews have curbed human movements and are not without undesirable implications. In developing countries like India, most of the population work in unorganized sectors and have been rendered without wages during the lockdown. Ensuring deliv-

ery of essential supplies to households when supply chains are disrupted also becomes challenging. It comes as no surprise that chaos and panic could arise, given uncertainties about the future. Governments are trying to support businesses and individuals, stop the spread of misinformation, and educate people about the continued use of measures that enhance the health of the larger public. Another concern is impaired access to care for patients with chronic illnesses and debilities who would otherwise be critically dependent on existing healthcare facilities. The circumstances are highly dynamic and seem to change with each passing day.

Providing maintenance dialysis and caring for patients using maintenance immunosuppressive agents are practical challenges. Several documents have been recently published to guide management. However, resource constraints and the fact that most healthcare expenditures come out of pocket will complicate things in this region, especially when finances will be hit as a result of prolonged lockdowns. Government support and broader public-private sector cooperation will be required to overcome these barriers. In addition to healthcare staff, there is a need to educate patients using dialysis and their caregivers because they frequently visit healthcare facilities. Mobile technology and telemedicine platforms are being used to facilitate clinical decision-making wherever feasible.

Kidney involvement in COVID-19 ranges from asymptomatic abnormalities, such as proteinuria and microscopic hematuria, to dialysis-dependent acute kidney injury (AKI). The prevalence of proteinuria, hematuria, and AKI in a cohort of 701 patients in Wuhan, China, has been reported to be 43.9%, 26.7% and 5.1%, respectively. Importantly, AKI was independently associated with in-hospital mortality. In patients with elevated serum creatinine at admission, the in-hospital mortality was 33.7%. Therefore, nephrologists must be an important part of the core team caring for patients with COVID-19. In addition, given the exponentially increasing burden of COVID-19 and the diversion of resources toward its care and control, nephrologists have been forced to take up the role of front line managers in severely hit areas. Therefore, nephrologists should brace to perform dual roles as nephrologists and physicians.

The South-East Asia regional office of WHO considers the region to be at high risk and highly vulnerable to COVID-19 because of resource constraints, gaps in diagnostic laboratory capacity, lack of proper infection prevention or control practices, and logistics. The WHO has recommended urgent refresher training to healthcare workers, broader intersectoral cooperation, risk communication, community engagement, and international cooperation as important measures to address these deficiencies. In addition to overall burden and mortality statistics, the WHO advises that the percentage of cases among healthcare workers is an important key performance indicator for COVID-19. Isolation of infected patients, tracing followed by quarantine of contacts, and personal protection measures are fundamental to stopping the spread of COVID-19. These measures are directed toward bringing the peak down so that human and material resources can be mobilized to care for patients with COVID-19 in the future. It is important to realize that the diagnostic approach needs to be broad based and that facilities for diagnosis need to be enhanced and made available to make this approach successful. The development of specific drugs or vaccines will be supplemental. There is no doubt that the rapid evolution of COVID-19 across the world and responses to it will have far-reaching implications for the way healthcare is practiced and delivered. ■

Vivek Kumar, MD, is an assistant professor in the department of nephrology at the Postgraduate Institute of Medical Education and Research in Chandigarh, India. Vijay Singh, MSc, PhD, is associated with the department of nephrology at the Postgraduate Institute of Medical Education and Research in Chandigarh, India. Vivekanand Jha, MBBS, MD, DM, PhD, is executive director of the George Institute for Global Health, India; professor of nephrology, University of Oxford; conjoint professor of medicine, University of New South Wales, Sydney; and president of the International Society of Nephrology.