



National Board of Examinations - Journal of Medical Sciences  
Volume 1, Issue 1, Pages 14–17, January 2023  
DOI 10.61770/NBEJMS.2023.v01.i01.003

## EDITORIAL

### Pandemic Care and the Post Graduate Residents

Minu Bajpai<sup>1,\*</sup> and Abhijat Sheth<sup>2</sup>

<sup>1</sup>*Professor & Head, Departments of Paediatric Surgery, All India Institute of Medical Sciences, New Delhi - 110029, India*

<sup>2</sup>*Senior Consultant, Cardiothoracic Surgeon & C.E.O., Apollo Hospital, Ahmedabad & President, NBEMS*

Accepted: 26-December-2022 / Published Online: 7 January 2023

Coronavirus disease (COVID-19) came as a challenge for health care providers in India. The impact of the COVID-19 pandemic continues to pose enormous challenges for medical health care provider especially the resident doctors. The social & economic crisis and saving lives have been a significant issue.

During their training process, residents also contribute to the provision of healthcare services. Given the particular nature of training programs in teaching hospitals, there is an increasing concern regarding the precise effect of medical residency on the performance of these hospitals. In this sense, the productivity of residents has raised interest among economists.

The overall contribution of resident physicians to hospitals' production allows considering them as an input in most cases with their average productivity contributing to around 37% of that corresponding to senior physicians [1].

The National Board of Examination in Medical Sciences (NBEMS) with its 1,182 accredited hospitals (Covid period figures- Government 405 and Private 777) along with its alumni played a crucial role during the pandemic. NBEMS alumni served as frontline warriors for the best patient care and significantly helped to prevent workforce shortages.

Addressing doctors on the occasion of 'National Doctors Day', The Prime Minister of India also recognized the "limitations" of medical infrastructure that were created in the country over several decades and how it was neglected in earlier times. In his statement, the Prime Minister said "In our country, the population pressure makes this challenge even more difficult. But despite this, India's per lakh population rate of infection and death rate has still been manageable compared to more developed countries. Losing even one life is very saddening but India has also saved the lives of lakhs of its people from corona virus. A big credit for it goes to our hardworking doctors, healthcare workers and frontline workers" [2].

\*Corresponding author: Minu Bajpai  
E-mail address: bajpai2b@gmail.com

### **Impact of COVID -19 pandemic on doctors and other support staff**

A recent study by Japan International Cooperation Agency – India Office entitled “*Impact of COVID -19 Pandemic on Medical Healthcare Workers in Mumbai City, India*” reported that having 7,37,685 cases and a death toll of 16,048, making Mumbai one of the country’s biggest hotspots. The city has a severe shortage of beds- one per 3000 individuals, well below the WHO guidelines of one per 550. This has exacerbated the stress on medical health workers who have suddenly had to bear a disproportionately large burden of the work. The study also revealed that the risk of getting infection transmission increases by 35% to the doctors and other healthcare providers e.g. Nurses and Technicians. The responsibility of patient care is up to 71% on health care providers (37% Doctors, 23% Nurses and 11% of Technicians). Other 29% staff were engaged to provide administration, security, sanitation services etc. 25% of health care providers experience high or very high burn out levels and 37% experience nervousness or over stressed conditions which showed how our doctors and other support staff fight the pandemic [3].

### **Telehealth & the residents**

The Coronavirus disease 2019 (COVID-19) pandemic has caused a substantial number of deaths worldwide, surpassing a million casualties [4]. However, this number does not even begin to quantify the hidden toll of the pandemic—the collateral damage it has caused. The vulnerabilities of marginalized people were worsened and has pushed them further into poverty and deprivation.

Among these are the excess deaths associated with COVID-19 [5,6] which are at least partly due to disruptions in the healthcare systems, including the discontinuation of emergency and acute care, difficulty accessing routine outpatient services, and difficulties related to accessing essential medications and other therapies such as childhood vaccination programmes contributing to increased mortality and disability [7]. Treatment of chronic diseases requiring regular healthcare has been

particularly affected by the discontinuation and/or reduced capacities of health services and the impact on noncommunicable diseases (NCDs). Students responded to the need of the hour and met standards set at the time monitoring patients with COVID-19 symptoms who did not require hospital admission, via telemedicine & provided teleconsultation under guidance. This would go a long way into adapting to the evolving digital health system & providing teleconsultation for chronic diseases, where necessary.

### **The roles and responsibilities of NBEMS students during the COVID-19 pandemic**

As per the statement of Indian Medical Association (IMA) Around 2,000 doctors died in second wave of COVID-19 and the mortality rate in the country was around 1.5% among the general population and around 2–3% among the healthcare workers. According to this estimate, coronavirus occurred in about 1,00,000 doctors [8,9]. Many global medical associations such as American Association of Medical Colleges (AAMC) framed its guidance by highlighting that “medical students are students, not employees. They are not yet professional doctors” [10]. This is a true statement but it fails to acknowledge that resident doctors or medical students have roles not only as students but also as physician/surgeons-in-training. The primary role of resident doctors is to learn medicine for patient care. They are also the primary health care givers by guiding, providing consultations & responding, communicating, informing and also spreading awareness about the disease to the patients and their families. They are the ones who are taking care of the patient from admission to discharge.

The NBEMS students and alumni have acted as professional health care providers and worked very hard to reduce the viral transmission with limited personal protective equipment (PPE) of which there were serious shortages during the first wave of COVID-19. Allowing the NBEMS students to serve as a corona warriors ultimately benefited patient care, overall, throughout the pandemic. There was precedence for this kind of involvement. During the Spanish flu outbreak of 1918,

medical students at the University of Pennsylvania cared for patients in the capacity of physicians [11]. In the 1952 polio epidemic in Denmark, groups of medical students were tasked with manually ventilating the patients [12]. During the COVID-19 pandemic, all resident doctors including NBEMS students served as frontline corona warriors. The health care system of India and the world had been stretched up to its breaking point. NBEMS students had adapted to many clinical responsibilities, improving patient care long before the health care system reached a personnel crisis, and in some cases even prevented it.

### **Risks of contracting infections**

The medical associations raised concerns about the risks for infection to students, PPE shortages, and associated liability issues. These risks undoubtedly warranted careful consideration & the same were mitigated. The students also performed clinical tasks in specific instances, conferring benefits to patients that outweighed the risks associated with their involvement. From providing assistance with routine emergency services, they provided the necessary boost to the efficiency of lightly staffed clinics. This was in the form taking histories, managing diagnostics, laboratory test results, spreading awareness among patients' family about social distancing, home quarantine etc. Even in a pandemic, patients with chronic conditions needed ongoing care.

### **Collaborative efforts between National authorities and NBEMS accredited private sector**

At the beginning of the pandemic, most of the initial Covid-19 testing and treatment had been done in public facilities. In India, the authorities responded decisively with a strong whole-of-government approach even after the enormity of the economic challenge. According to the World Health Organization, a critical lesson from the 2014-16 West African Ebola crisis is, that, both the public and private sectors need to work in tandem in responding to large-scale epidemics. As the epidemic progressed,

both these services have been expanded several-fold, and the private sector has stepped in as a major partner and stakeholder. In the Covid-19 response, the private sector in the country (for-profit and not-for-profit segments) has played an even more important role, as it is the dominant provider of health services in the country. The National Sample Survey Office's 71st round data demonstrated that the private hospitals, clinics and nursing homes provided over 70% of health care. Data on the nearly 10 million treatments received under the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) corroborate with this finding [13].

The creation of a large and accessible testing infrastructure was the key weapon to control the infection transmission. Countries such as South Korea, Singapore, Germany and Japan have been successful in controlling its spread and reducing mortality through early detection and quick containment. This had been possible only through widespread testing. India had opened testing up to private labs and payment for testing covered under the ABPM-JAY as well. Testing capacity was substantially expanded which was something not possible without the active participation of the private sector.

### **Conclusion**

Medical students and physicians undeniably played a critical role in dealing with COVID-19 pandemic. The adequacy of their knowledge, training, dedication toward patient care was commendable in dealing with the COVID-19 pandemic. The senior doctors with higher clinical experience have used their experience to guide young medical students particularly towards pre-clinical medical students. NBEMS students and its alumni are a valued group within our health care system. They are well qualified & have received or pursuing their DNB, DrNB and FNB degrees with additional training for being able to be specialists and receive their certification. Their training usually takes three to six years before becoming an independent practitioner. They are on the frontline as COVID-19 corona warriors. They have presence in the Clinics, OPD, IPD, wards, ICU, managing ventilators, screening

patients and sometimes they are the ones that are with the patients alone in their final moments.

### Conflict of Interest

The authors declares that they do not have conflict of interest.

### References

1. Maria J. The European Journal of Health Economics. 2022; 23: 301–312.
2. PTI. PM Modi greets doctors on doctor's day, loud their role in saving live. The Times of India. Jul., 01, 2022. <https://timesofindia.indiatimes.com/india/pm-modi-greets-doctors-on-doctors-day-lauds-their-role-in-saving-live/articleshow/92587737.cms>
3. Impact of Covid-19 Pandemic on Medical Health Workers in Mumbai City. Sambodhi. A study submitted to Japan International Cooperation Agency India Office. 2021. [https://www.jica.go.jp/india/english/office/others/c8h0vm0000fdjmnnd-att/study\\_02.pdf](https://www.jica.go.jp/india/english/office/others/c8h0vm0000fdjmnnd-att/study_02.pdf)
4. World Health Organization Coronavirus (COVID-19) dashboard. <https://covid19.who.int>.
5. European mortality monitoring activity. Excess mortality. <https://www.euromomo.eu/graphs-and-maps>.
6. Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report. Excess deaths associated with COVID-19. <https://www.cdc.gov/mmwr/volumes/69/wr/mm6942e2.htm>.
7. World Health Organization. The impact of COVID-19 on mental, neurological and substance use services: results of a rapid assessment. Geneva: World Health Organization; 2020. <https://www.who.int/publications/i/item/978924012455>.
8. Special Correspondent. Resident doctor's Covid-19 duty should not exceed 8 hours and 7 day: IMA. The Hindu. Jan., 1, 2022, New Delhi. <https://www.thehindu.com/news/national/resident-doctors-covid-19-duty-should-not-exceed-8-hours-and-7-days-ima/article38133884>
9. Argus News. 2000 docs die in Covid 2nd wave; IMA want more safety in 3rd wave. Argus. Jan., 05, 2022. Bhubaneswar. <https://argusnews.in/article/national/2-000-docs-die-in-covid-2nd-wave-ima-wants-more-safety-in-3rd-wave>
10. Whelan A, Prescott J, Young G, et al. Guidance on Medical Students' Participation in Direct In-person Patient Contact Activities. Association of American Medical Colleges. 14 August 2020. <https://www.aamc.org/system/files/2020-08/meded-August-14-Guidance-on-Medical-Students-on-Clinical-Rotations.pdf> on 3 September 2020
11. Starr I. Influenza in 1918: recollections of the epidemic in Philadelphia. 1976. Ann Intern Med. 2006; 145: 138-140.
12. West JB. The physiological challenges of the 1952 Copenhagen poliomyelitis epidemic and a renaissance in clinical respiratory physiology. J Appl Physiol (1985). 2005; 99:424-432.
13. Jain N, Kumar A, Nandraj S, Furtado KM. NSSO 71st Round – Same Data, Multiple Interpretation. Economic and Political Weekly. 2015; 46 & 47: 84-87. [https://www.niti.gov.in/sites/default/files/2019-01/NSSO\\_71st\\_Round%20\\_Final.pdf](https://www.niti.gov.in/sites/default/files/2019-01/NSSO_71st_Round%20_Final.pdf)