

**INTEGRATING CRISIS MANAGEMENT LOGISTICS INTO A HOSPITAL'S
CONFIGURATION IN THE COVID-19 PANDEMIC: THE STORY OF A COVID
WARRIOR****Manorama Parida***

Department of Biomedical Engineering, IMS & SUM Hospital, SOA Deemed to be University, Bhubaneswar-751003.

***Corresponding Author: Manorama Parida**

Department of Biomedical Engineering, IMS & SUM Hospital, SOA Deemed to be University, Bhubaneswar-751003.

Article Received on 14/03/2025

Article Revised on 04/04/2025

Article Published on 25/04/2025

The novel coronavirus SARS-CoV-2 disease (COVID-19) emerged in China and has spread worldwide. In November/December 2019, the coronavirus disease of 2019 (COVID-19) was identified and began to spread. The virus spread quickly across the globe and began to challenge governments and healthcare facilities to respond appropriately.^[1,2] On March 11, 2020, the World Health Organization (WHO) formally declared COVID-19 a pandemic. Healthcare organizations (HCOs) are normally prepared for typical disease levels in their populations.^[3,4] However, COVID-19 tested traditional epidemic protocols as the disease surpassed the scope of previous pandemics.^[3] One day at 11.45 pm, my phone rang, and though I belonged to an engineering team, I immediately checked and saw the president sir's number on my screen. There is an assignment to make a COVID hospital in an engineering college. Immediately, my answer was Yes, and I prepared myself mentally because the Entire state suffered from COVID-19. Next Day, at 8.30 AM, the vehicle is reached, and the entire project team is inside the vehicle. I Hug my son and start my journey to prepare our organization for fighting the COVID-19 virus.

When we reached Kendrapara, we saw an Engineering college, and they gave us 2floors to make the Covid Hospital. I was scared as so many snakes were there For the Last 7-8 months, college was closed, and lots of grass and creepers were there. One of our project team members assured me that the cleaning work had already started and that pest control was also there to help us. First, we plan the required areas like the patient receiving area, ward, Intensive Care Unit (ICU), laboratory, Radiology, doffing, Central Sterile Supply Department (CSSD), laundry, Gas manifold, mortuary, and dining. Also, we need the facilities to accommodate Doctors, sisters, lab technicians, housekeeping, security, maintenance staff, etc. Though it's an engineering college, we have big classrooms, labs, standard rooms, toilets, exam halls, seminar halls, etc. First, we plan according to our requirements. The college entrance lobby was converted into a patient-receiving area. Standard room converted as radiology and Lab. Classrooms converted into wards and High Dependency Units (HDUs). Seminar room and Lab converted as ICU. So many challenges were faced because we needed unidirectional flow, i.e., patient entry to exit and staff entry with donning to exit with doffing. Equipment like monitors, ventilators, syringe pumps, infusion pumps, electrocardiogram (ECG) machines, Defibrillators, arterial blood gas test (ABG), Pt warmers, HFNC, X-ray machines, CR systems, Readers, CBC, Electrolyte Analyzer, USG, CT scans, etc. BOQ was ready based on

patient load.

At that time, the market was shut, and the vendors could not come for discussion, so we conducted the meeting through Zoom and finalized the price. However, the more significant challenge was transportation and labor. Our management is ready to pay both side transportation and labor charges. Then comes the time challenge. Completing the work within the stipulated time means 14 days remaining. I remember President Sir repeatedly asking if we could complete the task given by the government. Because one moto was the minimum to minimum casualty in this disaster, if we are not ready to face this disaster, it may increase to 30 to 300 in Odisha. So, there is a lot of pressure from the government to finish the work as soon as possible. They have signed a Memorandum of Understanding (MOU) with our Hospital to start the COVID hospital. The hospital bed with the complete set and equipment was shifted from the existing SUM Hospital, Bhubaneswar, to Kendrapara until the vendor delivered it. We divide our team members into different assignments according to plan. The HVAC team started to install the Air conditioner in the radiology, central lab, and ICU areas. The electrical team started the cabling and fixed the electrical points according to our requirements in various departments. The team also started their work to fix the gas pipeline from the Manifold room to the ward and ICU. During this work, the shifting of furniture was started, and the

re-installation in that area, which area was completed in all aspects like MGPS, electricity, etc. Then, Lab equipment and x-ray machines were shifted, and last, we shifted monitors and ventilators. There was no space for the store to keep equipment, so we needed to move it in the above manner. Two of my team members are staying there for the reinstallation. Though time was short, we are working day and night phase-wise. They are scared as COVID-19 is rapidly spreading, and the death rate is also gradually increasing. Management continuously inspired us to finish the task, but the fear existed somewhere. One day, a small boy and his grandmother came. My two team members and I sat just outside of the hospital. That old woman asked, "Maa, when will this hospital start? We were surprised that the little boy started crying, then the old woman said his father was suffering from a fever and nobody came to check because of this disaster." If this Hospital is completed, then she can save his son's life. Every day, we get the news about the condition of the state in this COVID situation, but for the first time, we practically feel the situation of the general people. I saw the trust in that old woman and her grandchildren's eyes on us. My team member held my hand and asked if we could fulfill her expectations. Why not.....my reply time was Evening 5.30. Again, we start our work and finish the entire setup by morning 8.15. I don't believe in myself. How is it possible? But we can. Organize everything. We brought the air compressor, suction, and oxygen jumbo cylinder from the vendor godown and fixed them ourselves. Our civil team has fixed the pipeline. The biomedical team has re-installed the equipment and gave training to sisters and paramedical staff. One of my biomedical team members stays there 24x7 to provide support.

At Anugul, Chandpur, Puri, and Bhubaneswar, we start the dedicated Covid Hospital to fight this disaster.

One day, President Sir came to the Convention center where we planned to transform a 500-bed COVID hospital. I remember that day, sir was asked if the government had a lot of trust in our hospital to face this COVID challenge. Are you ready to support me? There is no issue if anyone is uninterested, as many family members are not ready to allow it. But surprised, all are ready to involve themselves in these assignments. Now, all are COVID warriors.

Author's contribution

The author was the sole contributor to this manuscript's conception, design, and writing. The author is responsible for the scientific content and integrity of this study.

Financial support and sponsorship

Nil.

Conflict of interests

No conflict of interest declared.

REFERENCES

1. Orsini E, Mireles-Cabodevila E, Ashton R, et al. How we do it: Lessons on outbreak preparedness from the Cleveland Clinic. *Chest*, 2020; 158: 2090-6.
2. Kumar SU, Kumar DT, Christopher BP, Doss CGP. The Rise and Impact of COVID-19 in India. *Front Med (Lausanne)*, 2020; 7: 250. Retrieved from: doi: 10.3389/fmed.2020.00250.
3. Alharthy A, Faqihi F, Mhawish H, Balhamar A, Memish ZA, Karakitsos D. Configuring a hospital in the COVID-19 era by integrating crisis management logistics. *Infect Control Hosp Epidemiol*, 2021; 42(7): 911-913.
4. Porter TH, Rathert C, Ayad S, Messina N. A One-Team approach to crisis management: a hospital success story during the COVID-19 pandemic. *J Hosp Manag Health Policy*, 2021; 5: 18.