

# Strategic Utilisation of Nursing Personnel during the Covid-19 Pandemic

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## Abstract

*Pandemic is an entirely different situation which needs special preparation and contingency approach for its management. World Health Organisation (WHO) declared Covid-19 as a pandemic in month of March 2020. The entire globe was hit by the pandemic and no one knows when it all is going to get over. Nursing professionals have emerged as the frontline warriors in the fight against Covid-19 all around the globe. As we have already entered the seventh month with Covid-19 since March 2019, management of nursing human resource and protecting them from the infection as well as keeping their spirits high has become the greatest challenge. Providing care to the Covid-19 patients as well as non-Covid patients with the same available workforce has become an uphill task for the nurse administrators. Numbers of nursing staff in hospital are limited and same as it was before Covid-19 pandemic. Nurse administrators are expected to ensure proper utilisation of the available nursing manpower, protecting them from the infection and also taking care of their holistic health including the physical, social and the psychological domains. This article emphasises proper utilisation of nursing human resource, proper quarantine facility (in-house and at home), proper nutrition, their safety, proper training, psychological support and counselling of the nursing manpower during Covid-19.*

World health organisation announced Covid-19 outbreak as a global pandemic on 11 March 2020.<sup>1</sup> In a briefing, WHO Director-General, Dr Tedros Adhanom Ghebreyesus observed that over the past 2 weeks, the number of cases outside China increased 13-fold and the number of countries with cases increased threefold. In the future further increase in the number of cases is expected. He said that the WHO is "deeply concerned and worried by the alarming levels of spread & severity and by the alarming levels of inaction". He called on countries to take action now to contain the virus. As on 27 August 2020, 23,980,044 positive cases are found, 820763 death have already occurred worldwide. In India till 27 August 2020, there were 33,10,234 positive cases and 60472 deaths. In Rajasthan 73,325 positive cases and 980 deaths were recorded (Kalal, 2020).

All India Institute of Medical Sciences (AIIMS), Jodhpur, a tertiary care hospital of western Rajasthan is catering patient care to COVID -19 patients since March 2019. Initially nursing workforce was apprehensive and fearful regarding the care and risk of infection. Main challenges faced during the

pandemic were management of the nursing manpower, protecting nurses from risk of infection, keeping their morale high and taking care of their physical as well as their psychological health. The principle of posting minimum number of staff to care for Covid-19 patients without compromising the care was followed. The philosophy behind this policy was to minimise the risk of infection to the nursing workforce as this battle is going to last for a longer period. No one knows exactly when this is going to end. Preparing and motivating the nursing officers to care for larger number of patients initially was difficult but the results were motivating.

## Distribution of Nursing Manpower: Administrative Department

At the administrative level nursing workforce reports to the Chief Nursing Officer. As the Covid-19 was declared as pandemic in March 2019 the leaves of all nursing personnel were cancelled with instruction not to leave the station. Human resource planning was particularly challenging for the nursing department, which had to ensure availability of sufficient manpower in case of a sudden increase in the number of patients, while maintaining the same level of service to all other functional departments.

All the nursing workforce of the hospital was trained for infection control practices, donning and doffing of PPE. Providing care to Covid as well as non-Covid patients at the same time was a chal-

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lenge. Duty rosters were planned in such a way that minimum number of staff required for care was called on duty during the months of April and May and other staffs were asked to stay on call to minimise the risk of infection.

### **Nursing staff posted in Covid Unit: Covid Screening Desk**

Norm of single entry to the hospital was followed. All the patients approaching the hospital had to pass through a Covid-19 screening desk. One nursing officer was assigned in each shift round the clock. Nursing officer along with the on-duty resident assessed the patients on a structured screening checklist based on ICMR guidelines to rule out fever, cough, and difficulty in breathing or travel history. If none of the symptoms were present then the patient was sent to routine OPD/emergency and if any symptoms were present, they were admitted with others in the Covid suspect ward. Nursing officers were posted for 15 days duty including 5 Morning, 5 Evening and 5 Night duties.

### **Covid Suspect Ward**

Patient who were screened at Covid-19 screening desk and found to be suspect for Covid-19 and were stable were shifted to Covid-19 suspect stable ward through a designated pathway for the same. Sample for Covid-19 was collected in the suspect ward, and based on the report either they are discharged if the report was negative or admitted to the Covid-19 Positive Ward if the report was positive.

Two suspect wards were set up, one each for male and female with capacity of 24 beds and it was ensured that the report for Covid-19 RT PCR test should be received within 24 hours so as to transfer/discharge suspect patients as early as possible. One Nursing officer in each shift was posted to take care for the suspect patients for the two suspect wards.

### **Severe Acute Respiratory Illness Medical Intensive Care Unit (SARI MICU)**

Suspect patients who were critical and unstable were admitted in SARI MICU and Covid-19 samples were collected from them. If the report was positive, they were transferred to Covid Critical Care Unit (CCCU) and if the report was negative, patient was transferred to non-Covid adult intensive care unit (AICU). Ratio of nurse-patient 1:2 was maintained in SARI MICU. In this unit 30 staff was assigned for 15 days with 2 day off in duration of 15 days. In each shift 9-10 staff was on duty. All nursing staff was provided 14 days post-duty quarantine at institutional facility.

### **Covid-19 Positive Units**

Patients who tested positive were transferred to Covid-19 positive units based on their physical con-

dition. Covid-19 positive units were divided into:

- Covid-19 stable ward: 24-bedded
- Covid-19 HDU (High Dependency Unit): 24-bedded
- Covid Critical Care Unit (CCCU): 18 bedded

Stable patients were admitted in Stable Wards with 2 nursing officers in each shift posted for 15 days roster.

Patients who were not stable and may require regular monitoring and oxygen support were admitted in HDU. In this area 3 to 4 nursing officers were assigned in each shift for 15 days, then quarantined period for 14 days.

### **Covid Critical Care Unit (CCCU)**

Patients who needed ventilator support were admitted in CCCU. Nurse-patient ratio of 1:2 was maintained in SARI MICU. In this unit 30 staffs were assigned for 15 days with 2 day off in duration of 15 days. In each shift 9-10 staffs are on duty. All nursing staffs are provided 14 days post duty quarantine at institutional facility.

### **Covid OT**

Elective surgeries were postponed initially in April & May 2020. As the OPDs started functioning again, elective surgeries were also started along in emergency cases. In case of elective surgery, patient was tested for Covid-19 preoperatively and if the report was positive and if the surgery could be postponed at that time, then the surgery was postponed.

But in emergency cases if surgery was to be done and the Covid-19 status of patient was not known or patient was a known case of Covid-19, they were operated in the designated Covid OT. Emergency LSCS for suspect or positive patients was also done at the Covid OT. Three nursing officers in each shift area were assigned duties for 15 days. One Senior Nursing Officer in each shift was assigned to take care for 2 suspect or 2 positive wards or 2 HDUs whereas one SNO in each shift was given for each CCCU and SARI MICU.

### **Training of Nursing Staffs**

Training all the staff of the institution was a big challenge. A structured training module comprising of infection control protocols, donning-doffing of PPE and environmental sanitation was developed and nursing personnel were trained in groups of 30-40 in a batch. Assistant Nursing Superintendent along with Medical faculty from Department of Microbiology and Community Medicine and Family Medicine were the facilitators for the training programme. Adequate education and training was required to nurses, which included the use of personal protective equipment (PPE), hand hygiene, ward disinfection, biomedical waste management,

and sterilisation of patient care devices and management of occupational exposure.

Providing staff for duty rosters of CCCUs and HDUs has been challenging as nursing officers working in non-Covid wards could not be posted directly to CCCUs or HDUs without training them in handling patients on ventilator. To make this possible numbers of nursing officers in AICU were increased and a module for training of patients on ventilator was developed and nurse educator, ward in-charge AICU, SNO and ANS AICU were the facilitators for the same. All staff being posted for CCCUs / Covid HDUs was posted in AICU for at least a 15 days and had undergone the training module and must have experience of handling a patient on ventilator independently. The combination of on-site training and online training was used to maximise the hospital infection prevention, and control awareness and capabilities of medical staff.

#### **Staff Welfare (Health Assessment, Quarantine Facility and Nutrition)**

Health care workers' screening was done at the start of each shift on a structured proforma and if any symptoms were there, staff was sent to Covid-19 screening desk.

Institutional quarantine facility is provided to officers posted in Covid CCCUs, Covid HDU and SARI MICU during the Covid posting as well as for 14 days post-duty quarantine. Transportation facility was arranged from quarantine accommodation to hospital. As per Farhadi & Ovchinnikov (2018), nutritious food play vital role to maintain immune system to prevent infection. In our institute healthy diet is provided to nursing officers on Covid duty by the hospital administration.

Tomlin et al (2020) stated in a study that nurses spending 24 hours with Covid patient had the highest level of occupational stress; therefore they focus on psychological health and wellbeing of nurses. The nursing department conducted psychological interventions for frontline nurses in order to raise mental health awareness and directly address mental health concerns of frontline nurses (Wang et al, 2003). Therefore psychological assessment of staff is also done in our institute and webinars on coping with stress, yoga and meditation are frequently

organised. Exemption or relaxation to staff from Covid duty is provided to staff who request for the same based on medical, family or personal reasons.

#### **Appreciation and awards**

COVID Warriors of AIIMS Jodhpur have been facilitated with certificates of appreciation for their outstanding services on 12 May and 17 September 2020 by the Director of the Institute. Photographs of the Covid warriors were also displayed on the social media through the institutional social media page.

#### **Conclusion**

Nurses have emerged as the frontline warriors in this fight against Covid-19. We are about to enter the seventh month of pandemic and by this time we see ourselves battling with courage and firm belief that we together are going to win.

Nurses with their empathetic care and their communication with the patient have proved to be of great help in these testing times of Covid-19 pandemic. Proper planning of manpower, motivation and involving operational level managers in planning have proved to be beneficial.

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#### **Congenital Heart Defect Awareness Day: 14 February**

Organised by Congenital Heart Defects Foundation, the Congenital Heart Defect Awareness Day is a yearly campaign to promote awareness about congenital heart defects (CHDs) celebrated on 14 February.

The term CHD refers to a defect in the structure of the heart and the blood vessels present in about nine of 1,000 children worldwide. And though some of these children do not require treatment, most such cases need life long cardiac care. In a child with CHD, the heart does not develop normally before birth.