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### **Bed Management during Covid-19 Pandemic**

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**ABSTRACT:** Covid-19 officially became the global pandemic in 2020 and the number of patients started to increase. In India also the cases started to increase to a point that it caused difficulty to get a bed in a hospital. The deficiency of beds caused a haphazard situation and management of beds raised up to the top tier of the important aspects for the hospitals.

#### I. INTRODUCTION

Different types of hospitals responded and managed the situation differently and therefore this project focuses on how the type of hospital (Private, Semi-Private, Government) affects the management of the beds for the patients.

#### **II. RELATED WORK**

Definition of Covid-19 (WHO) "COVID-19 is the disease caused by a new coronavirus called SARS-CoV-2. WHO first learned of this new virus on 31 December 2019, following a report of a cluster of cases of 'viral pneumonia' in Wuhan, People's Republic of China.

The most common symptoms of COVID-19 are • Fever • Dry cough • Fatigue Other symptoms that are less common and may affect some patients include: • Loss of taste or smell, • Nasal congestion, • Conjunctivitis (also known as red eyes) • Sore throat, • Headache, • Muscle or joint pain, • Different types of skin rash, • Nausea or vomiting, • Diarrhea, • Chills or dizziness. Symptoms of severe COVID-19 disease include: • Shortness of breath, • Loss of appetite, • Confusion, • Persistent pain or pressure in the chest, • High temperature (above 38 °C). Other less common symptoms are: • Irritability, • Confusion, • Reduced consciousness (sometimes associated with seizures), • Anxiety, • Depression, • Sleep disorders, • More severe and rare neurological complications such as strokes, brain inflammation, delirium and nerve damage.."

[1] WHO. "Coronavirus Disease (Covid-19) Question and Answers". Accessed 20 June 2021. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answershub/q-a-detail/coronavirusdisease-covid-19

An Indian Express article talked about the second wave (Since March, 2021) of Covid-19 (When the survey was done). "Explained: What has changed in the second wave of Covid-19 in India? Because an asymptomatic person, who carries the virus, would have spread the infection. In India, experts say, 80-85% of the population are asymptomatic. They continue to be the largest carrier of the virus, and in a closed indoor setting, an asymptomatic person will transmit the virus even when he or she is talking. Also, asymptomatic people don't isolate themselves in a home setting. A combination of a large asymptomatic population and the presence of more infectious variants of the virus during the second wave, which is much steeper than the first wave that peaked in September, continues to transmit the virus even to those who are staying indoors. For instance, the UK strain detected in a significant proportion during genome surveillance in Delhi and Punjab, has shown a 50% higher transmission, according to the US Centers for Disease Control and Prevention (CDC). The L452R mutation found in the variant B1.671, first detected in India, too has been associated with increased infectivity. Second, in the current wave, the marking of the containment zone has been less strict. In cities, the government has asked civil authorities to adopt micro-containment: with perhaps just a floor or a house defined as a containment zone. If there is no effective monitoring in microcontainment zones, containing the virus becomes a challenge. Earlier, an entire apartment or area would be made a containment zone, reducing the chances of transmission of the virus. Now, central teams have red-flagged the fact that high-risk contacts in workplace, social and family settings were not investigated and listed in Maharashtra, resulting in a surge. This is happening across the country."

[2] Kaunain Sheriff M. "explained-what's-changed-in-second-wave". Accessed 20 June 2021. https://indianexpress.com/article/explained/explained-whats-changed-in-second-wave7289002/ International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET)



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#### III. METHODOLOGY

AIM OF THE RESEARCH: This research is being conducted to study the bed management of Covid-19 patients and their relation with the type of hospitals they were in (Private, Semi-Private, Government).

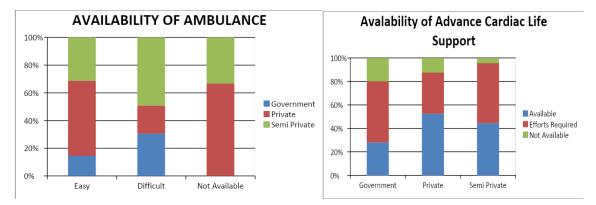
#### WORK PLAN:

- 1) Selection of the idea
- 2) Review of the literature
- 3) Conducting a survey
- 4) Data Analysis
- 5) Results and Implications
- 6) Solution to the problems

#### IV. METHODOLOGY

1) Online survey was conducted with the questionnaire with a set of questions regarding the bed management of the hospital they experienced.

- 2) The data was collected.
- 3) The data was set in a table form.
- 4) Data was then analysed by using Two Way ANOVA test.
- 5) Data was then graphically represented.
- 6) Target people were the ones who had a Covid hospital experience.
- 7) Site of the survey was the Urban area.
- 8) sample size was- 110
- 9) mode of survey- Online.



#### V. EXPERIMENTAL RESULTS

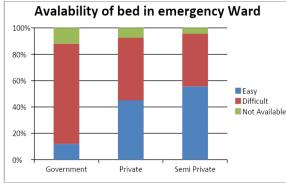
Figure 1: Availability of Ambulance

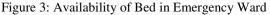
Figure 2: Availability of Advanced Cardiac Life Support | e-ISSN: 2319-8753, p-ISSN: 2347-6710| www.ijirset.com | Impact Factor: 7.569



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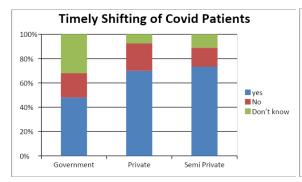


Figure 5: Timely Shifting of Covid Patients

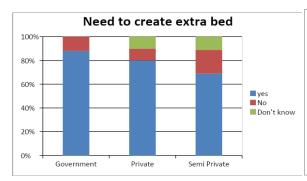
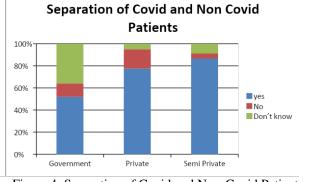
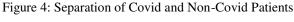


Figure 7: Need to Create Extra Bed





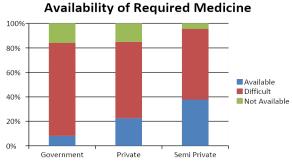


Figure 6: Availability of Required Medicines.

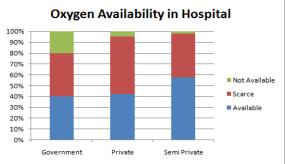


Figure 8: Oxygen Availability in Hospital

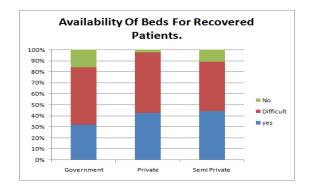


Figure 9: Availability of Beds For Recovered Patients

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#### VI. CONCLUSION

• There is no relation between the types of hospitals with the ease of getting an ambulance at reasonable cost. The availability of ambulances was considered difficult by the responders of all hospitals.

• There is no relation between the types of hospitals with the availability of advanced cardiac life support. It was considered that the efforts were required by all hospitals.

• There is no relation between the types of hospitals with the availability of beds in the emergency ward. Getting bed in an emergency was considered difficult by the responders of all types of hospitals.

• There is no relation between the types of hospitals with the separation of covid and non covid patients in the emergency ward. The respondents suggested that the separation was available in all the hospitals.

• There is a relation between the types of hospitals with timely shifting of patients to ICU/ oxygen/ non oxygen bed. The results suggest that there was timely shifting of patients to ICU/ Oxygen/ Non oxygen beds most easily in Semi-Private hospitals followed by Private and then Government hospitals.

• There is a relation between the types of hospitals and availability of required medicines. The results suggest that availability of required medicines was difficult maximum in Semi-Private hospitals followed by Private and then government.

• There is a relation between the types of hospitals and the need to create extra beds. There was a maximum need to create extra beds in Private hospitals, then in SemiPrivate and lastly by Government hospitals.

• There is no relation between the types of hospitals and availability of oxygen. The results suggest that Oxygen was available in all the hospitals.

• There is a relation between the types of hospitals and availability of beds for recovered patients. The results suggest that beds for recovered patients were available with difficulty in Private hospitals followed by Semi-Private hospitals, and with least difficulty in Government.

#### REFERENCES

[1]. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answershub/q-adetail/coronavirus-disease-covid-19

[2] Kaunain Sheriff M. "explained-what's-changed-in-second-wave". Accessed 20 June 2021. https://indianexpress.com/article/explained/explained-whats-changed-in-second-wave7289002/





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