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Research Article

Current Scenario of COVID-19 Related Activities in Tertiary Care Hospital of Gwalior

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I N F O

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A B S T R A C T

Background: During the COVID-19 period all activities were affected for the worse, including the medical facilities. During this period, all health professionals have put their best efforts for delivery of the best possible health services. This study was framed to access the patient care activities in the COVID scenario.

Methodology: The data was collected by the Community Medicine Department, G.R. Medical College, Gwalior from Jaya Arogya Hospital and Super Speciality Hospital [Dedicated COVID Hospital (DCH)] attached to this college. The collected data was analysed on Microsoft Excel worksheet 2007. Half monthly (15 days) data was used from the beginning of the month of May to the end of August 2020 and the change in trends was shown by a line diagram.

Result: During the period of May to August 2020, a total of 2921 suspected patients were treated, while confirmed COVID-19 patients were 1005; the total number of tests done at our lab and the number of Swab Samples collected in the hospital were 170715 and 22926 respectively during this period. In general, total OPD, total IPD, and total deliveries done during this period were 111029, 20352, and 2954, respectively.

Conclusion: Findings show the positive trend in activities as time progresses depicting clearly the hospital and college trying to perform its best with the support of the competent staff.

Keywords: COVID-19, Trend, Patients, Sample, Gwalior

Introduction

The COVID-19 pandemic, caused by a novel severe acute respiratory syndrome coronavirus has directly or indirectly affected everyone in the world.[1] Novel coronavirus disease (COVID-19) emerged as an outbreak but soon converted to a pandemic. Pandemics are large-scale outbreaks of infectious diseases with a high burden of morbidity and mortality over a wide geographic area and cause significant economic, social, and political disruption.[2] In India, the first case was reported on 30th January, 2020. The high infectivity rate of COVID-19 has not only created a health emergency in most parts of the world but overwhelmed the existing health systems of all countries alike. To avoid such a situation and to contain its spread, social lockdown and physical distancing are probably the best prophylactic measures. The impact of the pandemic is so colossal that in these times all medical specialties have ceased to exist and

there remains only one specialty and that is "COVID doctors (doctors involved in management of COVID 19 cases)".[3] From March-end lockdown was implemented in India, due to which hospital activities like Outpatient Departments (OPD), Inpatient Departments (IPD), deliveries, and lab testing also got affected. Doctors, paramedical workers, and other affiliated staff have dutifully affirmed their new frontline COVID-19 duties, but after lifting of lockdown measures they are increasing their outpatient and inpatient dispensation along with COVID-19 patient care. Tertiary care hospital Jaya Arogya Hospital G.R.MC Gwalior put all of its effort to bring routine patient healthcare back on track same as in the pre-COVID era.

Objectives

- To show the trend of COVID-19 activities from May to August 2020 in our hospital
- To show the trend of general patient care during the lockdown period in tertiary care hospital

Methodology

Jaya Arogya (J.A.) Group of Hospitals is a tertiary care hospital that is attached to G. R. Medical College, Gwalior. This study was undertaken at J.A. Hospital and Super Speciality building attached within it. At present, the Super Speciality Block is designated as a dedicated COVID hospital (DCH). This analysis used the database covering COVID-19 activities and general patient care activities which had been extracted from the reports prepared by the Community Medicine department of G.R. Medical College, Gwalior. Fortnightly (15 days) data, from the start of May, 2020 to the end of August, 2020 was used to show the change in trends. Statistical analysis was done using Microsoft Excel Software. The data was analysed for COVID-19 activities and a line graph was prepared to show a change in trend.

Result

In the present study, from the period of May to August, 2020, a total of 2921 suspected patients were treated while confirmed COVID-19 patients were 1005. Both the number of suspected COVID-19 cases treated and the number of confirmed COVID-19 cases treated are increasing day by day in our hospital (Table 1, Figure 1). The total number of tests performed at our lab and the number of swab samples collected in the hospital were 170715 and 22926 respectively for the period May to August, 2020. With increasing time, the total number of tests performed at our lab increased drastically. The number of swab sample collections shows a constant trend (Table 2, Figure 2). The total number of swab samples collected for the field testing and the number of contact tracings done during this period were 31752 and 41500, respectively. The number of contact tracing shows an increasing trend as time increases while the number of swab samples collected for the field testing shows a zig-zag trend (Table 3, Figure 3). In general, total OPD, total IPD, total deliveries done during this period were 111029, 20352 and 2954 respectively. The number of IPD patients and deliveries during this period show a constant trend while OPD shows a zig-zag trend (Table 4, Figure 4). During this period, the number of training sessions held for donning and doffing was 101 and the total number of persons trained was 1183.

Table 1.COVID Patient care information frequency distribution

COVID Patient care information	Half-monthly (Every15 Days)							
	First Half of May, 2020	Second Half of May, 2020	First Half of June, 2020	Second Half of June, 2020	First Half of July, 2020	Second Half of July, 2020	First Half of August, 2020	Second Half of August, 2020
Number of Suspected COVID 19 Cases treated	250	297	287	281	485	318	472	531
Number of Confirmed COVID 19 cases treated	28	34	48	51	209	96	271	268

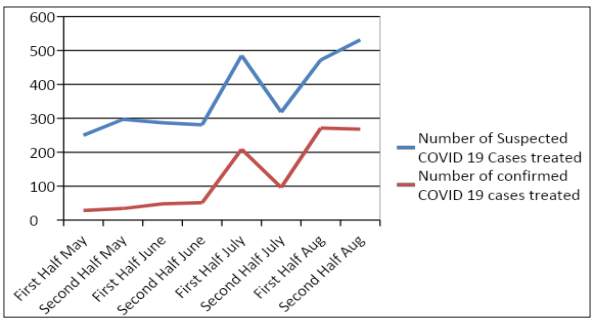

Figure 1.Number of Suspected and Confirmed COVID-19 patients treated over time

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Table 2.Information on testing of COVID-19 Sample

Sampling	First Half of May, 2020	Second Half of May, 2020	First Half of June, 2020	Second Half of June, 2020	First Half of July, 2020	Second Half of July, 2020	First Half of August, 2020	Second Half of August, 2020
Total number of tests done at our lab*	5214	7099	10919	12457	33566	35138	33258	33064
Number of Swab Samples collected in our hospital	2572	1689	2042	3803	3977	2825	2809	3209

* Total number of tests done at our lab includes samples from J.A. Group of Hospitals and other hospitals of Gwalior-Chambal division.

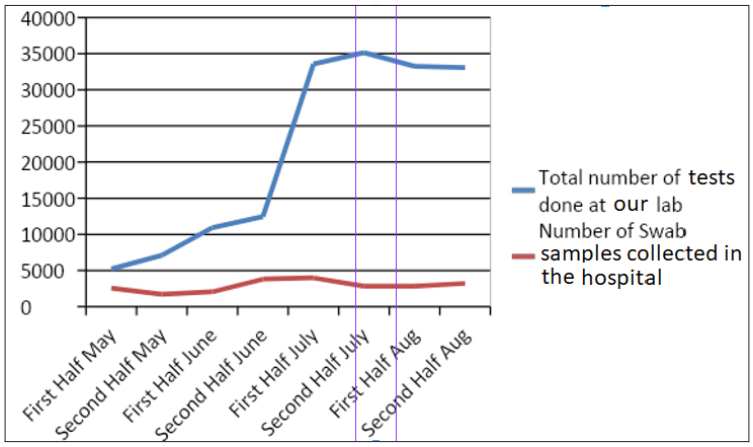

Figure 2.Temporal presentation of number of tests done at our college lab and samples collected in our hospital

Table 3.Information on sample collection for field testing and contact tracing

Field testing and contact tracing	Second Half of May, 2020	First Half of June, 2020	Second Half of June, 2020	First Half of July, 2020	Second Half of July, 2020	First Half of August, 2020	Second Half of August, 2020
Number of Swab Samples collected for the field testing	1574	3904	6398	3251	5129	7244	4252
Number of contact tracing done	753	2219	2288	5757	8698	9313	12472

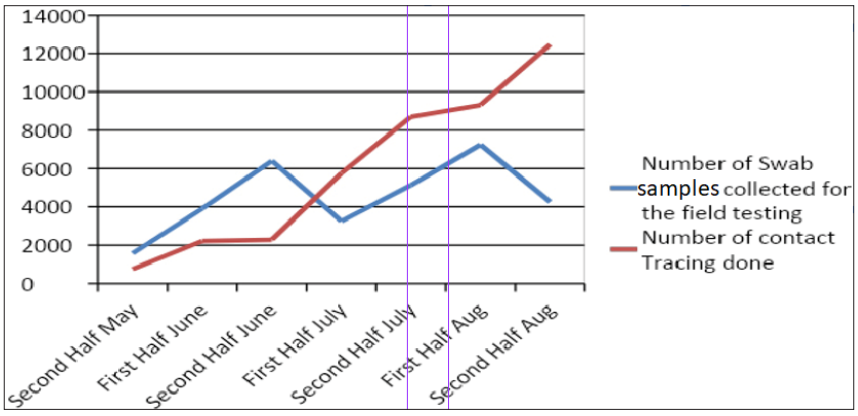

Figure 3.Trend depicting number of swab samples collected during field testing and number of contact tracing done

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Table 4.Information on general patient care

General patient care	First Half of May, 2020	Second Half of May, 2020	First Half of June, 2020	Second Half of June, 2020	First Half of July, 2020	Second Half of July, 2020	First Half of August, 2020	Second Half of August, 2020
Number of OPD Patients	14495	12078	15129	14774	15930	10946	13561	14116
Number of IPD Patients	2367	3079	2429	2668	3018	2244	2085	2462
Deliveries	267	264	353	325	546	337	531	331

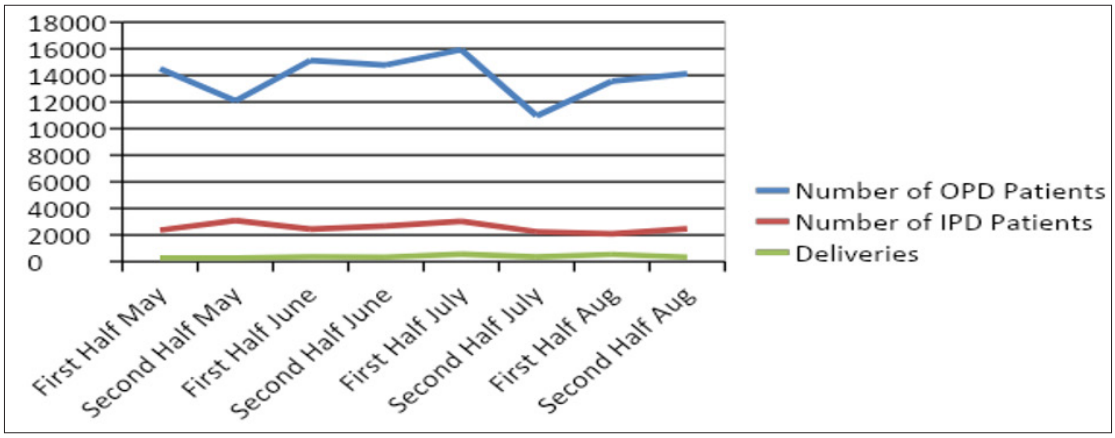

Figure 4.Distribution showing the number of patients in OPD, IPD and Deliveries in our hospital from May to August 2020

Discussion

In our study, both the number of suspected cases treated, and the number of confirmed cases treated increased every passing day. It may be so because in Gwalior, GRMC is a tertiary care centre, and because the city experienced its worst COVID-19 situation after the month of June, 2020. Tests performed at our college lab increased to maximum capacity sustained due to staff and faculty effort. As the number of patients increased in Gwalior, contact tracing also increased. General patient care information like OPD, IPD, and delivery in our hospital showed a constant rate with no decline thanks to staff dedication. As countries around the globe weigh new policies, they should consider the expansion of primary care to include hospital-at-home services. After all, a hospital admission prevented by strong outpatient primary care is an extra hospital bed for a patient who needs acute care due to COVID-19.[4] With Covid-19 spreading, India was forced to rapidly scale up its critical care infrastructure after seven decades during which much of public health budgets went to programmes on maternal and child health. It did that with some measure of success.[5] The lockdown affected transportation, access to health-care facilities, and availability of medicines and consumables as well as outpatient and inpatient services. The overall toll of the collateral damage in the form of impact on people with non-COVID conditions will take a long time to be evaluated. The social stigma associated with the care of COVID patients spread through social media and by word of mouth. This caused fear among the staff, leading to absenteeism.[6] As the COVID-19 pandemic spread, it became increasingly evident that routine outpatient face-to-face appointments would have to be reorganized to reduce the burden on hospital resources and the infection risk that COVID-19 poses to patients.[7]

Conclusion

With each passing day numbers of suspected and confirmed cases treated are increasing in hospital. Present study indicates that number of testing is continuously increasing in our hospital while number of samples collected in hospital, OPD, IPD and deliveries remains more or less same. Competent staff and hospital administration are doing their best to manage everything in current scenario even at the risk of their own lives. With rising numbers of COVID-19 patients, hospital administration should be in constant state of preparedness to manage these COVID-19 patients without compromising non COVID-19 patient care.

Conflicts of Interest: None

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