



## Correspondence

### Broadening the scope of nation-wide clinical registry for hospitalized COVID-19 patients

Sir,

I read with interest the article by Kumar *et al*<sup>1</sup>, and appreciated the efforts of the Indian Council of Medical Research (ICMR) and the authors for initiating a nation-wide clinical registry for hospitalized COVID-19 patients at tertiary care centres. This initiative will improve our understanding of the disease process and outcome based on evidence-based treatment and guide the further management and policy changes with new emerging evidence in the Indian population. However, I would like to bring out a few observations on the study which would have improved the data analysis and conclusions for further guiding the course correction in the pandemic.

The authors stated that patients were managed as per the clinical discretion of the attending physicians based on the National and State guidelines<sup>1</sup>. The degree of variation in the National and State guidelines has not been discussed which is important as this would affect the outcome of patients if there were significant variations in the guidelines. The ICMR from time to time has come out with the standard guidelines for diagnosis of COVID-19 cases; however, in this article, it was mentioned that diagnosis was made by the treating physicians based on the standard guidelines as followed by the hospitals. If the guidelines of participating hospitals for diagnosis were different than the national guidelines, then again it would introduce a bias in the clinical registry. The details of the National guidelines, the State guidelines, and the diagnostic criteria of participating hospitals should have been provided to understand if there were any significant variations and this would have provided strength to the study. In the registry protocol, whole-genome sequencing has not been included which is of importance because it has been demonstrated that the emergence of variants of concern (VOC) plays a decisive role in shaping up the pandemic and disease profile of admitted patients. India launched

its vaccination programme on January 16, 2021<sup>2</sup>, and the authors have included patients admitted from February 1 to May 11, 2021 for the second wave. No data regarding the vaccination status of the patients enrolled in the registry during the second wave have been provided. The vaccination status may not have been included in the registry when it was launched in September 2020, as at that time, there was uncertainty regarding the availability of the vaccines. However, data regarding the vaccination status should have been included for the second wave, which is important in understanding and guiding policy changes for future waves. Data regarding the enrolment of paediatric cases (<18 yr) have been provided under the subgroup <20 yr<sup>1</sup>. However, paediatric cases are distinct subgroup with varied disease profiles in <12 yr and the adolescents till 18 yr of age. The disease profile in these two subgroups should have been analyzed separately for better understanding.

The authors mentioned that the proportion of asymptomatic patients had increased considerably at the time of admission during the second wave<sup>1</sup>. However, during the massive surge in the number of cases in the second wave, asymptomatic and mild cases of COVID-19 were advised home quarantine to cater for symptomatic patients requiring hospital care due to availability of limited number of beds. Hence, the observation in the study of increased proportion of asymptomatic patients admitted to hospitals is not understood. No mention of antivirals usage in the hospitals has been made in the article by the authors<sup>1</sup>. Tocilizumab was used in similar proportions in both waves<sup>1</sup>, but these data could be misleading due to acute shortage of the availability of the drug during the second wave. There was an increased burden of oxygen supplementation and mechanical ventilation, but the median duration of hospital stay decreased by one day in the second wave as compared to the first

wave<sup>1</sup>. This decrease in hospitalization in spite of increased severity of the disease is contradictory. There was emergence of mucormycosis during the second wave which was linked to increased use of steroids and pre-existing diabetes mellitus<sup>3,4</sup>. The authors have not included the data for this complication in their analysis in the clinical registry.

The enrolment of hospitals from Jammu and Kashmir, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, West Bengal and Kerala has been almost nil<sup>1</sup>. It is understood that enrolment of hospitals was voluntary based on invited expression of interest for participation in the registry network, but in view of an unprecedented situation of a raging pandemic, hospitals from these States should have been designated in consultation with the State governments for better representation and true pan-India capture of data. The State governments should have been engaged directly for enrolment of key hospitals in the registry network.

The criticisms and the points raised above are to supplement the National Clinical Registry. Initiating and maintaining a clinical registry in a socially, politically and demographically diverse country like India is a formidable task. The ICMR and the authors are once again complemented for undertaking and carrying out this task and generating data, especially during the challenging period of an ongoing pandemic with massive surge in cases during the second wave, which overwhelmed the logistics and health infrastructure of the country. With the evolving and changing dimensions of the pandemic in view of the emergence of highly transmissible VOCs and increasing coverage of vaccination against SARS-CoV-2 of the Indian population, modifications/updating of the datasets are required in the registry network for acquisition of data which will guide the formulation/updating of policies to manage this pandemic and return of a near-normal lifestyle in the society. Another suggestion would be to incorporate data from post-COVID-19 clinics in the registered hospitals and enrolled patients to study the long-term physical and mental health and suggest guidelines based on the analysis of the data.

**Conflicts of Interest:** None.

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## References

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