Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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The role of a noninvasive index 'Spo2/ Fio2' in predicting mortality among patients with COVID-19 pneumonia

To the Editor,

Given the current state of COVID-19 pandemic, the necessity for a noninvasive, reliable, and rapid assessment tool is critical in the early evaluation of patients with COVID-19. These readily available parameters such as Spo2, Fio2 and other vital signs, can benefit physicians in stratifying patients on admission, especially while dealing with high patient volumes due to COVID-19. We congratulate Satici et al. for aiming to assess the role of these parameters in predicting mortality in COVID-19 patients [1]. After careful review of the article, we would like to share some comments that could enhance the understanding of the study.

According to the criteria listed in the method section, patients were included in the study based on the availability of medical records and on a diagnosis of COVID pneumonia in the emergency department. However, no clear definition was given for COVID pneumonia, except for a positive polymerase chain reaction (PCR) test. However, PCR test alone is not an accurate representation of the ongoing infectious process, and relying on it for inclusion would result in a broad patient population that doesn't represent patients with COVID pneumonia [2]. Moreover, given the date and time of the study, it would be important to know if vaccination and immunity status against COVID-19 were considered when including participants in the study.

Imaging modalities, such as chest x-ray and chest CT, play an essential role in diagnosing and classifying COVID-19 cases [3,4]. Therefore, utilization of these tools can impact decisions pertaining to stratifying severity, assessing prognosis and in guiding management. This fact was not considered in the early evaluation of study participants or in the decision-making, which raises questions regarding the selection process.

The parameters measured, such as Spo2, Fio2, and CRB-65 score, are mainly available from the patients' bedside. Given the retrospective nature of this study, the patients' chart information will contain many of these data points. We are curious to know the specific time points during the course of illness when these parameters were calculated. Since the study's conclusions are dependent on these parameters, we believe it is crucial to define specific time points when calculating and comparing these values.

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This is a non-funded study, with no compensation or honoraria for conducting the study.

Compliance with ethics guidelines

This article is based on previously conducted studies and does not contain any new studies with human participants or animals performed by any of the authors.

Credit authorship contribution statement

Rashed AlRemeithi: Writing – original draft, Conceptualization. **Manisha Uppal:** Writing – review & editing, Conceptualization. **Namrata Singh:** Writing – review & editing. **Marwa S.H. Abrahim:** Writing – review & editing.

Declaration of Competing Interest

The authors do not have a financial interest or relationship to disclose regarding this letter to the Editor.

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All named authors meet the International Committee of Medical Journal Editors (ICMJE) criteria for authorship for this article, take responsibility for the integrity of the work as a whole, and have given their approval for this version to be published.

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