

# Preoperative chest disease and postoperative pulmonary complications: Anticipated results still need further examination

Dear Editor,

Postoperative pulmonary complication (POPC) is a critical perioperative concern. We read the interesting study by Ercen Diken *et al.*<sup>[1]</sup> published in your journal with great interest. We thank the authors for their effort, and the study will help the perioperative physicians and chest physicians for categorizing and optimizing the patients with preoperative pulmonary disorder according to the gravity of the procedure. The authors' emphasis on careful evaluation of the patients by a pulmonary specialist and anesthesiologists is genuinely justified. However, it is felt that a few facts need more information for better interpretation and acceptance of the study results.

The authors did not find American Society of Anesthesiologists (ASA) Class as an independent predictor, and this intrigued us. Although the recent literature and studies indicate against the authors' findings,<sup>[2,3]</sup> we believe that the ASA Class assignment by the authors may not be proper. This is because, authors included those patients who were consulted for preoperative chest diseases, which itself classify them as ASA-II (ASA Physical Class by ASA House of Delegates/ Executive Committee. Last amended: October 15, 2014). Hence, there is unlikely to be an ASA Class I patient in their cohort. This might have impacted their outcome.

Furthermore, respiratory failure was defined by the authors as the ratio of arterial oxygenation with a fraction of inspired oxygen <300 or saturation of oxygen <90% and requiring oxygen therapy. While we agree with the definition *per se*, the inclusion of chronic obstructive pulmonary disease (COPD) patients where peripheral oxyhemoglobin saturation (SpO<sub>2</sub>) is likely to have values <90% preoperatively could not satisfy the definition without inviting inclusion bias. More often, we even keep the target of SpO<sub>2</sub> 88%–90% in a COPD patient.<sup>[4]</sup> Hence, the number of such patients in the preoperative period who were later categorized as or developed respiratory failure is essential to know for better interpretation of results.

The other information which will help the scientific community is the time within which (i.e., hospitalization, within 30 days postoperative or entire 6 months of

follow-up) a complication has been classified as a POPC. This is not well mentioned leading to the obscurity. It can even impact incidence. Details of follow-up will give better information as this is a retrospective study. Similarly, information on a few other points which may affect the outcome of this study is the status of preoperative pulmonary infection, preoperative oxygen supplementation, duration of surgery, class or severity of COPD, etc.<sup>[5,6]</sup>

While we agree that the authors result will help us in formulating better preoperative care, it is also true that intraoperative management such as duration of anesthesia and colloid use<sup>[5,6]</sup> can affect the POPC, and therefore, a prospective study including physicians from both chest/pulmonary medicine and anesthesiology will give us better insight.

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## Conflicts of interest

There are no conflicts of interest.

## Habib Md Reazaul Karim, Chinmaya Kumar Panda

Department of Anaesthesiology and Critical Care, All India Institute of Medical Sciences, Raipur, Chhattisgarh, India

ORCID:

Habib Md Reazaul Karim: <https://orcid.org/0000-0002-1008-6528>

Chinmaya Kumar Panda: <https://orcid.org/0000-0003-0340-314X>

## Address for correspondence:

Dr. Habib Md Reazaul Karim,  
Faculty Room A001, Block A, Department of Anaesthesiology  
and Critical Care, All India Institute of Medical Sciences,  
Raipur - 492 099, Chhattisgarh, India.  
E-mail: drhabibkarim@gmail.com

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