

[ LETTERS TO THE EDITOR ]

**Altered Consciousness, Non-invasive Ventilation and Hypoxemic Respiratory Failure: The Trident Question Unresolved**

**Key words:** non-invasive ventilation, acute hypoxic respiratory failure, altered consciousness, Glasgow Coma Scale

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*To the Editor* We read with interest the article by Kogo et al. about the efficacy and safety of using non-invasive ventilation (NIV) in patients with acute hypoxic respiratory failure (AHRF) with mildly altered consciousness (ALC) (1). Interestingly, this study did not find that ALC was an independent risk factor for NIV failure. Some recent prospective studies, found that the presence of ALC was significantly associated with NIV failure in patients with AHRF (2, 3).

However, although current study done by Kogo et al. specifically assessed the use of NIV in patients with ALC in comparison to patients without ALC, which was not done in earlier studies. They found that neurological failure (agitation or a declining Glasgow Coma Scale, GCS) was a significant reason for NIV failure in ALC patients with heart failure. However, the cause-and-effect association between NIV failure and ALC is not well explained and the proper clinical aspects need to be taken into account.

First, the authors included at least 3 (4%) patients with a Kelly-Matthay Scale score of 5 (i.e., GCS <9) in the ALC group; these patients should have been excluded per their exclusion criteria. In Fig. 2, the Kaplan-Meier curves only showed primary events (NIV failure) for 24 hours, instead of 48 hours; also successful weaning from NIV is not de-

finied in this study. Univariate analyses of the variables related to NIV failure were not presented. These aspects need to be confirmed.

Furthermore, the authors incorrectly reported that they did not observe any incidence of nosocomial pneumonia, as the patients were followed for 48 hours: after admission to the emergency room. There is major typographical error in the Results section (both in the abstract and in the main text) where the data of the ALC patients are presented after the data of the patients without ALC.

We consider that further clinical trials are needed to confirm these results.

**The authors state that they have no Conflict of Interest (COI).**

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