Letter in Response to the Article: "The Norton scale is an independent prognostic marker for mortality in critically ill patients

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Dear Editor,

We have read with great interest the recent article that was published under the title "The Norton scale is an independent prognostic marker for mortality in critically ill patients"[1]. In this article, the authors carried out a retrospective study on critically ill patients and tried to find out whether the admission Norton scores are independently associated with ICU or hospital mortality in critically ill patients. The patients were divided into different groups based on the Norton risk scores, and the results of the study showed that the lower the scores, the higher the mortality rate, indicating the potential prognostic value of the Norton scale for critically ill patients. We would like to commend the authors for their interest in the Norton scale and would like to provide a few comments that could be helpful in the interpretation of the results of the study.

Firstly, there were some inconsistencies in the reporting of the data. For instance, the text indicated that there were 1888 patients who had the Norton scores. However, Table I indicated that there were N=1889 patients. It would be important for the readers to get more clarity on this minor inconsistency[1]. From Table I, there was an indication of an unrealistic distribution of the patients. For instance, there was an indication that there were 1035 male patients in the high-risk group of 183 patients. It would be important for the authors to confirm this and correct it if it is a transcription error in Table I. From Table II, there was an inconsistency in the rounding of the percentages. For instance, ICU mortality was indicated as 127/1889, ≈ 6.7%, but it was indicated as 6%.

Secondly, this study is based only on a single-center retrospective study. In this study, it is found that approximately 17% of the patients were excluded without any explanation for missing values of Norton scores. Therefore, it would be better if the authors could explain in detail why the values of Norton scores are missing. This is because excluding any patient may cause bias. Therefore, it would be better if this information is given.

Thirdly, the Norton scale is actually meant to be used as a pressure ulcer risk scale and not as a mortality predictor scale. As earlier stated, the Norton scale has already been validated in the ICU setting, and the only parameter of interest in the validation is the risk of developing pressure ulcers in patients[2]. To our best knowledge, no other previous study in the ICU setting has used the Norton scale to predict mortality in patients. The use of the Norton scale in predicting mortality in the context of surrogate markers of frailty and mortality could be considered innovative and could be discussed in the paper. The use of the Norton scale in predicting frailty in patients without considering other established frailty scales could be considered a limitation of the paper and could be discussed in the context of the Norton scale in comparison to other established frailty scales that have already been highlighted in the literature. The Norton scale is used in predicting mortality in patients, but only in the context of other multivariable factors and other risk factors in patients[2]. It is also easier to understand the relevance of the Norton scale in comparison to other established scales in the field of nursing science by discussing the potential limitations of the paper in comparison to other established scales in the field of nursing science.

Fourthly, there is evidence of the effect of pre-admission patient frailty or functional status on ICU outcomes[3]. For example, Lourenço et al. reported that elderly patients admitted to the ICU and deemed frail had significantly higher mortality rates when compared to those who were not deemed frail[3]. It is not unexpected that the patients who had lower Norton scores, indicating their poor pre-admission status, had worse outcomes. It is also in this light that the Norton score in the present study could be interpreted as more of an indication of the patients' baseline frailty status and functional capacity rather than as a prognostic score. The authors could also be encouraged to look at the 'prognostic' significance of the Norton score as more of an indication of the patients' frail status. Such an interpretation could be more helpful in clarifying and possibly preventing over-interpretation of the Norton scale as a prognostic score in itself.

To conclude, once again, we would like to commend the authors on their research regarding the role of the Norton scale in the ICU setting. However, as mentioned in the previous points, these issues need to be addressed. In our opinion, the data presented by the authors needs to be clarified, and the results need to be discussed in relation to the already established frailty scales in order to further enhance this valuable piece of research in the literature. The aforementioned points are being made in the spirit of collaboration in order to assist the reader in understanding the results.

References

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