Association between negative FB and mortality in SICU

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To the Editor:

In a recent cohort study, Dr. Oh [1] reported that compared to normal FB (0–5%), the mortality rate in the negative FB (<0%) was comparable in SICU patients. Several limitations need to be addressed. First, translating a continuous variable (FB) into a category variable may weaken the statistical power to detect a true association. For instance, Balakumar [2] found that compared with even FB, both positive and negative FB were associated with higher mortality in critically ill patient. Whether there is a similar relationship in SICU patients cannot be inferred. Second, 0–5% of FB was defined as normal FB while the cut-off value was around 1% in Fig. 2 (panel B), and under this grouping method, the patients were unevenly distributed (5423 (68.7%) in normal FB, 1616 (20.4%) in negative FB). Simply categorizing these 5423 patients into one group may lose important information. Thus, we performed an additional analysis using data from MIMIC III database. Patients were divided into two subgroups according to the 48 h-FB ($1\% \leq \text{FB} < 5\%$ and $\text{FB} < 1\%$). Quartile method was used. In the subgroup with

$\text{FB} \geq 1\%$, the odds ratio (OR) of mortality stepwise increased from Q2 (OR 1.30, 95% CI 0.92–1.82) to Q4 (OR 2.15, 95% CI 1.57–2.93), referred to Q1, which indicated slightly increased FB was still a risk factor of mortality. In the subgroup with 48 h-FB < 1%, achieving more negative FB was not associated with mortality (Table S1).

References

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