

## Comment on “A retrospective analysis: the outcome of renal replacement therapies in critically ill children”

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Dear Editor,

We read with great interest the recent retrospective analysis<sup>1</sup> focusing on the outcomes of renal replacement therapies in critically ill children. The study provides valuable insights into the efficacy and impact of these therapies on a pediatric population facing critical medical conditions. The findings indicate that these interventions play a crucial role in managing renal dysfunction in critically ill children, thereby positively influencing their overall prognosis. Moreover, the study's emphasis on the pediatric population is particularly significant. As renal replacement therapies are often tailored for adult patients, understanding their efficacy and potential challenges in children is of paramount importance. By focusing on this specific demographic, the study contributes to a more targeted approach to treatment strategies, potentially leading to improved outcomes and a better quality of life for critically ill children. However, some of the following concerns deserve further clarification.

First, it is important to mention an issue observed in Table 2 of this study<sup>1</sup>. The table presents the age at admission (months) for both the survivor and nonsurvivor groups. It is noteworthy that the age at admission for survivors is reported as 63 (3–172) months, a value significantly higher than the non-survivors' median age of 6 (5–84) months. While the statistical analysis might suggest no significant difference between the two groups in terms of age at admission ( $p=0.42$ ), it is important to recognize that relying solely on  $p$ -value, especially when dealing with such substantial numerical differences (63 vs. 6 months), might not provide a comprehensive understanding of the actual age-related disparities between the groups. In addition, it is crucial to consider the potential implications of this age discrepancy on the outcomes and interpretations of the study. The fact that such a significant difference in ages between the two groups could have

a confounding effect on the study's conclusions, which should be thoroughly addressed in the discussion section. Failing to do so may lead to misinterpretations of the results and the potential misapplication of the findings in clinical practice.

Second, another issue is also observed in Table 2 of this study<sup>1</sup>. The description of some data in Table 2 seems to be inaccurate. Obviously, it is indicated that seven patients in the survivor group received vasoactive inotropic drugs, which would correspond to a usage proportion of  $7/28=25\%$ . However, this article erroneously states this proportion as 41.2%. Similarly, in the non-survivor group, where three patients received vasoactive inotropic drugs, the corresponding proportion should be  $3/9=33.33\%$  rather than the reported 100%.

Third, we would like to address discrepancies observed in Table 3 of this study<sup>1</sup>, which presents data related to systolic blood pressure at admission and its association with mortality, represented by an odds ratio of 0.98 with a 95% confidence interval (CI) of 1.12–1.5. It is evident that the reported odds ratio value of 0.98 lies outside the range of the 95%CI, which is clearly erroneous. Statistically, the value of the odds ratio unequivocally falls within the bounds of the 95%CI. This inconsistency raises concerns about the accuracy of the reported results. Therefore, it is recommended that the authors should carefully review the data presented in this study and ensure that such inconsistencies are addressed and rectified accordingly.

### AUTHORS' CONTRIBUTIONS

**QZ:** Conceptualization, Investigation, Methodology, Writing – original draft, Writing – review & editing. **PW:** Conceptualization, Investigation, Methodology, Supervision, Writing – original draft, Writing – review & editing.

### REFERENCES

1. Çeleğen K, Çeleğen M. A retrospective analysis: the outcome of renal replacement therapies in critically ill children. *Rev Assoc Med Bras* (1992). 2023;69(6):e20220837. <https://doi.org/10.1590/1806-9282.20220837>

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