Reviewer's report

Title: An evaluation of POSSUM and P-POSSUM scoring in predicting post-operative mortality in a level 1 critical care setting

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Reviewer: Marco Gemma

Reviewer's report:

The paper is well written.

The Authors’ objective of validating POSSUM and P-POSSUM scoring in a level 1 critical care setting is original, very interesting and useful for clinicians.

A high number of cases have been studied with a complete statistical method.

The conclusions are sound.

Given the importance of the statistical workup in this paper, I request a statistical review of it

Pending Statistician's opinion, I would request only minor essential revisions to Authors by now, namely:

- The number of enrolled cases should appear also in the Abstract, where presently only the study time span is reported.

- In addressing the limitations of their study, the Authors state that "... individuals may have left the region prior to death within 30 days of surgery and therefore failed to be collected as mortality statistics; we believe this to be unlikely." . On the other hand, mortality was obtained from hospital mortality records. This raises a question: were patients discharged from hospital before 30 days excluded from the study? if this was the case, how many were they? If not, how was mortality assessed for them?

- Another limitation of the study that the Authors discuss is that "... patients admitted to the level one care ward, discharged, and then readmitted to level 1 care following a second surgery represent two data entries; we believe this group to be small and statistically insignificant." A quantification of this group of patients is needed to justify the Authors belief.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I have no competing interest in reviewing this manuscript.