

Format for ANSWERING REVIEWERS

Februari 23, 2015



Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 16000-edited.doc).

Title: Intensive care organisation: Should there be a separate ICU for critically injured patients?

Author: Timmers TK, Verhofstad MHJ, Leenen LPH.

Name of Journal: *World Journal of Critical Care*

ESPS Manuscript NO: 16000

We thank the reviewers for the valuable comments. The adjustments based on these comments clearly contributed to the quality and readability of the manuscript.

The manuscript has been improved according to the suggestions of reviewers:

1) Format has been updated.

2) On the next page we address each of the points raised by the reviewers.

3) Revision has been made according to the suggestions of the reviewer (We have marked the adjustments in the revised manuscript).

- On the first page we have added extra information about a separate ICU for burn patient: “and from the burn intensive care^[26-29].”.

- On the fourth page (and last page of the manuscript) we have changed the style and sentence of our own findings: “Even in our own intensive care patient organisation (concerning surgical patients and the critically injured patients on outcome), a difference in the dimensions of crude ICU outcome (short-term mortality/ length of ICU stay and ICU readmission) was seen after the reorganization to a general ICU^[45].”.

- We have added extra references.

4) References and typesetting were corrected. The entire manuscript has been reviewed by a native English speaker.

Thank you again for publishing our manuscript in the *World Journal of Critical Care*.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Timmers', with a stylized flourish at the end.

Tim K Timmers, M.D., Ph.D.

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Reviewer #1

Overall comment:

It seems that author expressed their views based on their observation with out proper analysis or study. As they stated in the manuscript "To address this issue, we investigate our own..... We saw that....." This leads to the weakness of this manuscript.

This is as well an important point indeed and we thank the reviewer for bringing this up. The manuscript that we have submitted is not of a research origin. The intension and purpose of this article is to, again, open the interest and the communication about 'closed format' intensive care departments/ units and the specialised intensive care units (burn/ neuro-surgical/ trauma-surgery units, etc). Therefore, our manuscript is more as a 'Expert' letter origin in comparison with our last publication in *World Journal of Critical Care* entitled "Intensive care performance: How should we monitor performance in the future?".

there is hardly any literature about trauma patients admitted to a 'general' (closed format) unit or to a specialized trauma ICU. And because there is so little evidence, we made the decision to write this manuscript/ article based on our observations together with the little literature known about this subject. We totally agree with the reviewer that such a format could weaken the purpose of this manuscript. Therefore, we have changed the format slightly in order to strengthen and substantiate our intension. Nevertheless, the references used to support our opinion are still cohort studies and opinions of other researchers (interested in this field of experience).

Reviewer #2

Overall comment:

Read with great interest the article entitled "Intensive care organisation: Should there be a separate ICU for critically injured patients?". Even though the authors have mentioned 42 references, there is hardly any relevant data in the article. I would advise the authors to add some data supporting their observations and recommendations to add substance to this manuscript.

We would like to thank the reviewer for his/her careful reading. We agree with the reviewer that we have made use of 45 references (it was 42, but we have added 3 more references to support the separate burn Intensive care unit). Some are of older date and others are more up-to-date. Unfortunately, the role and type of the ICU has received very little attention in the literature when analyzing outcomes from critical injuries.

Our hypothesis is based on the facts that critically injured patients differ from that of other intensive care unit patients in many ways, one of the most important being the need to continuously integrate operative and non-operative therapy. Although progress in the care of the injured has been made, death due to uncontrolled bleeding, severe head injury, or the development of multiple organ dysfunction syndrome remains all too common in this patient population. Furthermore, due to the potential nature of the injuries, the conundrum not infrequently arises that the optimal treatment for one injury or organ system, such as preoperative permissive hypotension in actively bleeding patients, may result in suboptimal or even deleterious therapy in the presence of an other injury (such as traumatic brain injury). In addition, trauma leads to a state of relative immunosuppression with decreased humoral and cell mediated immunity. These facts have all been researched and documented in published articles of the last decade.

Nevertheless, we have done a new Pubmed search, and unfortunately, there is no new data to support our observations and recommendations in a better way as the references we have used in the manuscript.

Reviewer #3

Overall comment:

The only question to ask is "critical mass". How many patients on annual bases are needed to create ‘close format’ trauma facilities? Concentration of critical care including trauma is an important issue.

This is indeed a very interesting question. We agree with the reviewer that this point was not clearly described in the text. Because there is so little research published on critically injured patients admitted to the intensive care department, it is difficult to mention specific numbers (numbers to treat to save lives). Nevertheless, the research done by Nathens [The impact of an intensivist-model ICU on trauma-related mortality. *Ann Surg* 2006; 244: 545-554], Park [Trauma-specific intensive care units can be cost effective and contribute to reduced hospital length of stay. *Am Surg* 2001; 67: 665-670], and Duane [Are trauma patients better off in a trauma ICU? *J Emerg Trauma Shock* 2008; 1: 74-77] do suggest that we should admit critically ill patient on a separate ‘closed format’ trauma unit in Level 1 trauma-centers. Beside the research undertaken in this field of experience, there is substantial evidence that several specific patient-populations are better treated in their own specialised ICU: Neuro-surgery patients [Mirski *et al.* Impact of a neuroscience intensive care unit on neurosurgical patient outcomes and cost of care: Evidence-based support for an intensivist-directed specialty ICU model of care. *J neurosurg Anesthesiol* 2001; 13: 83-92 / Diringier *et al.* Admission to a neurologic/ neurosurgical intensive care unit is associated with reduced mortality rate after intracerebral hemorrhage. *Crit Care Med* 2001; 29: 635-640] and Burn-patients [Estrada *et al.* A 10-year experience with major burns from a non-burn intensive care unit. *Burns* 2014; 1225-1231 / Snell *et al.* Clinical review: The critical care management of the burn patient. *Crit Care* 2013; 17: 241-251 / Fagan *et al.* Burn Intensive Care. *Surg Clin North Am.* 2014; 94: 765-79 / Herndon *et al.* modern Burn Care. *Semin Pediatr Surg* 2001; 10: 28-31].

We agree with the reviewers’ comment: Concentration of critical care including trauma is an important issue; which is the purpose of our manuscript.