Reviewer’s report

Title: The role of increased body mass index in outcomes of sepsis: A systematic review and meta-analysis

Version: 0 Date: 09 Jun 2017

Reviewer: Jed Wolpaw

Reviewer’s report:

This is a well written, interesting review and meta-analysis of the association between BMI>25 and mortality (and other outcomes) in sepsis. A moderate number of relatively minor corrections are needed.

Comments by section with page and line numbers:

Abstract:

Consider defining overweight, obese and morbidly obese when you first mention them in lines 6-9. You can then save the space later in the abstract.

In your conclusion paragraph, lines 56-59, consider adding "Overweight, but not obesity or morbid obesity, was associated with lower mortality.

Background:

Page 6, Line 12: Saying "a survey" is very vague. Can you say who did the survey, how big it was, what the response rate was?

Page 6, Lines 44-50: Can you be more specific about which critical illnesses this paradox relates to? Is it just sepsis?

Page 6 lines 53-59. This sentence is unclear. What associations are you referring to?

Page 7 line 1-6: "Certain study has" should be Studies have

Page 7 lines 23-25: No need to say you are interested in the topic, would drop this sentence.

Methods:

Page 8 line 9: If you are going to list only some of the types of studies that were excluded you should give the full list somewhere, even if in a supplemental index.
Page 8 line 48: There should be a space between day and mortality

Discussion:

Page 12 lines 17-18: Is this comparable to the obesity paradox or is this an example of the obesity paradox?

Page 12 lines 36-37: Not sure what you mean that leptin is the most representative as well as anti-inflammatory. I would drop the "most representative" part.

Page 13 lines 15-20: What does it mean that adiponectin levels were higher in surviving overweight patients compared with surviving normal weight patients? If they both survived wouldn't this suggest the adiponectin level doesn't matter?

Page 13 lines 20-28: What do you mean obesity is treated earlier by nurses? When and how are nurses treating obesity and what is it being treated earlier than?

Page 14 lines 34-29: I think you mean to say that an unmeasured confounding variable COULD also explain the results. Could you give an example?

Conclusion

Page 16 lines 45-50: Would add that obesity and morbid obesity were not associated with increased mortality

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I recommend additional statistical review

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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