Author’s response to reviews

Title: Postoperative Tight Glycemic Control Reduces Postoperative Infection In Patients Undergoing Surgery: A Meta-Analysis

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Dear Ernesto Maddaloni, M.D.:

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Postoperative Tight Glycemic Control Reduces Postoperative Infection In Patients Undergoing Surgery: A Meta-Analysis

We are so pleased to hear from you that the manuscript is potentially acceptable for publication in BMC Endocrine Disorders.

Thank you very much for your valuable recommendations. We have sincerely considered your comments. We have revised our manuscript. Thanks again for your professional suggestions! Great thanks to you and the referee for the time and effort you expend on this paper.
Best wishes.

Yours sincerely,

Dr. zhen-feng

Editor Comments:

1. the sentence “It should also be noted that the above mentioned studies focused on the critically ill patients, but did not include surgical patients” is not correct and should be deleted. The study by van den Berghe et al. included mainly surgical patients, while the NICE-SUGAR study (references 2 and 3) included about 37% of operative patients. Therefore, also the sentence in the discussion “We should also note that the above mentioned studies did not include surgical patients” should be deleted.

Answer: We are so sorry for making you confused. We have deleted the sentence “It should also be noted that the above mentioned studies focused on the critically ill patients, but did not include surgical patients” (line 6, page 5, Background part) and “We should also note that the above mentioned studies did not include surgical patients” (line 5, page 14, Discussion part).

2. As the study by van den Berghe et al. mainly included surgical patients I would suggest to include this study in the meta-analysis. If the authors do not agree, they should better specify that studies enrolling ONLY subjects undergoing surgery have been included. In this case, because of the importance of the study by van den Berghe et al., the authors should justify in the discussion reasons for exclusion of this study from their meta-analysis and comment on it.

Answer: Thank you very much for your valuable recommendations. We do agree with you that although the study by van den Berghe et al. included adults receiving mechanical ventilation who were admitted to intensive care unit (which included mainly surgical patients (about 92%) and 62.5 percent had undergone cardiac surgery,), because of the importance of this study, we still included it in our meta-analysis (line 5-8, page 9, Results part). So the study of van den Berghe et al. has been added to the included studies. Furthermore, data was analysis again and the
correspond results were shown (Results part). Furthermore, we comment on it in the discussion part (line 25-30, page 13 and line 1-8, page 14, Discussion part).

3. When commenting on hypoglycemia in the discussion, please also comment on the study by Finfer S et al (reference number 2).

Answer: We have comment on the study by Finfer S et al when commenting on hypoglycemia in the discussion part as following:

The major harm of TGC was that it might increase hypoglycemia, especially in critically ill patients [2, 35, 36]. The study by Finfer S et al found that intensive glucose control leads to moderate and severe hypoglycemia in critically ill patients [2]. (line 27-29, page 14, Discussion part).

The consequences of hypoglycemia in hospitalized patients remain unclear as few studies report clinical adverse effects and explain how hypoglycemia harms patients in the long-term consequences. The study of Finfer S [2] has confirmed that both of moderate and severe hypoglycemia was associated with an increased risk of death in critically ill patients, however, others argued [37] that hyperglycemia was more similar to a signal of illness severity rather than the cause of clinical adverse outcomes. Indeed, the hyperglycemia level was related to the activation of the stress response. (line 4-11, page 15, Discussion part).

4. Power analyses should be specified in the manuscript and Authors should disclose the they were underpowered to identify an effect of TGC on mortality.

Answer: We have did sample size calculation and power analysis. (line 25-30, page 7 and line 1, page 8, Materials and Methods part).

5. Figures: please report on the x-axis the outcome of each forest plot (e.g. for figure 2 post-operative infection, etc.)
Answer: We have reported on the x-axis the outcome of each forest plot (figures).