Reviewer's report

Title: Self-rated health is associated with the length of stay at the intensive care unit and hospital following cardiac surgery

Version: 2 Date: 7 August 2014

Reviewer: Rakesh Arora

Reviewer's report:

Summary: The Authors have present a revision to their previous submitted study investigating the relationship between ICU LOS and affective and self-rated health following cardiac surgery. To re-state, this was single centre, prospective analysis that sought to determine self-rated happiness in 267 patients from 2006-2007. The primary outcome variable was ICU stay (i.e., the number of days from the date of surgery to the date of ICU discharge); defined extended postoperative ICU stay as a length of at least 3 days for patients who were alive at discharge. The Methodology, discussion, limitations and conclusions sections have been modified to previous reviewer comments.

Research Question Novelty:

This is an interesting question as it seeks to provide insight into “non-traditional” risk factor that may influence patient outcomes. The Authors have responded to several of the previous comments, however there are outstanding issues that require further clarification.

Major Revisions:

Methodology:

1. In the Abstract the primary outcome stated is “The clinical endpoint was hospital stay of at least 10 days and an ICU stay of at least 3 days” whereas the in manuscript it is stated as “The primary outcome variable was ICU stay (i.e., the number of days from the date of surgery to the date of ICU discharge). We defined extended postoperative ICU stay as a length of at least 3 days for patients who were alive at discharge.” Can the Authors please clarify?

2. It is not clear if this study is registered and specific to the stated primary outcome.

3. As per previous comments, who administered the tests? Were these performed by the patients or with a trained evaluator?

Discussion/Conclusion: The Authors have provided a lot of potential mechanistic action of low self-related health and inflammation, autonomic function etc. An element that would strengthen the paper further is if low self-rated health is capable of intervention (i.e. is there a possibility of treating/counselling patients in the preoperative phase to improve their self–rated health?)
Minor Concerns:
1. In Table one, the first column in “centre” justified. This should likely be modified to be left justified.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I have received an unrestricted educational grant from Pfizer Canada Inc. to investigate the long-term effects of depression in postoperative cardiac surgery patients.