Reviewer's report

Title: Operating theatre related syncope: time to improve the medical student curriculum

Version: 2 Date: 5 January 2009

Reviewer: Bruce Newman

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General Comments
The article identifies the incidence of one or more syncopal/near syncopal episodes in medical students attending surgical or laparoscopic procedures in their clinical rotations. The article also identifies the contributing factors to reactions and the actions that students took to prevent future reactions.

Major Compulsory Revisions

1. Abstract--There were a significant number of clarity issues.
   a. Under Results, were 639 students contacted or were they the responders? It is not clear.
   b. The pronounced gender difference was for the responders, which is not clear in the Abstract. It should state, "A pronounced gender difference exists for SYNCOPE / NEAR SYNCOPE REACTIONS(male 12%, female 12%)"
   c. It should state, "Of the 77 REACTORS(not respondents), 44 (57%)...."
   d. "The most prevalent contributing factors IN THE 77 REACTORS were reported to be hot temperature (79%), PROLONGED STANDING (73%), ...." The actual reactor numbers should be given as well as the percentages, e.g. 61 (79%). It is helpful to see the actual numbers.
   e. The measures that you quote as being preventative might be preventative but there was no proof presented, so you should not state that they are preventative. The medical students were not entered into a randomized trials to measure prevention. Rather they took actions to try to prevent future reactions. Therefore, they should be quoted as "may be helpful" or "actions taken", but it is a major flaw to describe these actions as being preventative.
   f. In the conclusion, as a reader, I have no expectation on what the reaction rate is, so I would not state that it is more common than expected unless you want to make a comparison with the medical literature.
   g. I would not use the term "preventative" but rather "actions taken" and "might prevent".
   h. Agree that dedicated time should be given to medical students to discuss the incidence of this reaction, potential causes of reactions based on the survey, and actions that might be helpful. I agree that a good meal, taking a break, and sitting down are probably useful actions for medical students who think they are at risk.
2. Tables need more clarity.

a. Table 1. You should definitely list the number of medical students, not just their percentages. I noted that you use the term "Respondents", which should be the terms used throughout the text. I also noted that the undergraduates are more likely to be female and the graduate students are more likely to be male---not necessarily relevant.

b. Table 2. Title should state "Percentage of 77 reactors". Right now, the group being evaluated is unclear. "Length of time standing" should be changed to "Prolonged standing". The number of medical student should precede the percentage, e.g. 61(79%)

Table 3.

a. Title should be changed to "Summary of Actions Taken by 77 Medical Students to Prevent a Second Reaction". The title is unclear and it does not identify the populations as being the 77 reactors.

b. The number of medical students should precede the percentage, as noted for the other two tables.

c. I don’t understand the term, "Increased exposure". What does that mean?

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests'