Reviewer’s report

Title: The role of an Anesthesiology curriculum at improving bag-mask ventilation and intubation success rates of Emergency Medicine residents

Version: 2 Date: 13 August 2010

Reviewer: Henry Wang

Reviewer’s report:

Thank you for the opportunity to review this manuscript. The authors of this paper describe the effect of a formal anesthesiology rotation on emergency medicine resident bag-valve-mask and intubation success in Iran. This question is interesting as emergency medicine residencies in many countries use anesthesia rotations to help trainees gain experience in intubation. In countries where emergency medicine training is evolving, it would be good to verify the utility of training modalities used in more established countries.

I regret that this paper is not ready for publication in its current format. It will likely require significant revision to be suitable for publication. Among the major issues:

- The study did not use a comparison group. All residents participated in the anesthesia curriculum. The primary evaluation is a one-group before-after comparison. If you think about it, the central scientific question is; “Do EM residents need to go through an anesthesia curriculum.” The proper way to answer this question is to assign one group to the anesthesia curriculum and a control group to conventional training (without the anesthesia rotation).

- The authors claim that resident BVM and intubation success improve after this curriculum. However, isn’t this a foregone conclusion? I would expect any physician undergoing intensive anesthesia training to demonstrate improved proficiency. The question of airway skills acquisition is potentially important if framed in a slightly different manner; for example, how many intubations do residents need to attempt to gain proficiency? Or “Can non-physicians acquire intubation proficiency from an anesthesia curriculum?” The findings may have also been more appealing if framed within the context of clinical training challenges in the Middle East.

- The entire paper needs significant improvement in organization, syntax and grammar. While I understand that the authors may not be native English writers, there are enough shortcomings in the current text to obscure its underlying meaning.

Specific comments:

- The introduction is long and poorly organized and does not adequately frame the rationale and objective of the study. I generally recommend a shorter introduction of no more than 3 succinct paragraphs.
- The methods section contains an abundance of information regarding the anesthesia technique delivered to patients. However, this information is arguably not related to the question of resident airway skill acquisition. I would focus less on clinical technique and more on educational details.

- Time to intubation is specified as a major outcome, but the methods of time measurement and the time definitions were not adequately described. Also is time to intubation relevant in this context? The difference between 13.6 seconds and 18.5 seconds is arguably not clinically significant. I would exclude this outcome.

- The results allude to “ventilation by using ancillary techniques” in the event of failed BVM ventilation. However, these ancillary techniques are never described.

- The discussion makes a few good points, but the section as a whole needs major revision and reorganization. Many of the statements are not relevant to the objectives of the study. A much shorter and concise discussion (3-4 paragraphs – or perhaps even 2 paragraphs) would be more successful.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.