Reviewer's report

Title: An educational game to improve Internal Medicine residents' knowledge and adherence to clinical practice guidelines

Version: 1 Date: 4 August 2008

Reviewer: Roger Wong

Reviewer's report:

Overall Comments

I approach the review of this manuscript with great interest and excitement. Educational games are commonly used in postgraduate medical education, and clinical practice guidelines (CPG) adherence is an important aspect of quality improvement and patient safety. Unfortunately, there are major areas that require significant revisions.

The title of the manuscript is somewhat confusing as it implies the study endpoints to be knowledge improvement and CPG adherence, although in actual fact the endpoints are game feasibility and acceptability. Thankfully, the study question posed by the authors is simple and straightforward. However, there are major methodological and data weaknesses, which are detailed in the following sections. These must be fully addressed before consideration for publication. The Discussion is also not adequately supported by the data presented. The overall writing is clear and acceptable.

Major Compulsory Revisions

Title:

The wording should be changed to reflect the actual study endpoints, that is, substitute feasibility and acceptability for knowledge improvement and CPG adherence.

Methods:

What was the sample size of residents? Why was this number chosen?

How was the needs assessment done? And from what audience groups (that is, residents, faculty, etc.)?

How were the endpoints (feasibility, acceptability) assessed? What measurement tools (structured or unstructured, standardized or non-standardized) were used? Were these validated or not?

Why did the authors opt to modify the traditional Jeopardy game board and rules instead of using the traditional version which is widely known and accepted? Has the Guide-O-Game© format been previously used and validated in a content
area other than CPG?

Results:

I would recommend moving the sections on "The multimedia interactive tool" and "The game questions and rules" to Methods.

The reporting of resident feedback in the Results section was very brief. More details are necessary. For instance, at a minimum, please report the frequency of responses by themes.

Discussion:

The last paragraph in this section includes statements that are not supported by data presented in this paper.

Specifically, please include what data from this or previous study that can demonstrate resident knowledge improvement on CPG by using an educational game.

How does peer interaction help with knowledge improvement?

What is the evidence that this educational game provides a "low risk environment" (in fact, if used in competitive format, the environment is at least medium risk if not high risk)?

What is the data that shows competition can "incite residents to learn" and pre-read?

What is the data that demonstrates association between the quality of game design and resident knowledge improvement?

Minor Essential Revisions

None.

Discretionary Revisions

None.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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.