Reviewer's report

Title: Effectiveness of an Ultrasound Training Module for Internal Medicine Residents

Version: 2 Date: 6 July 2011

Reviewer: Marilyn Baird

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Discretionary revisions

1 Given medical ultrasound is far more operator dependent than other medical imaging modalities, 40 minutes of theory and 20 minutes of practice seems a very short period of time for practitioners new to the modality to learn how to manipulate the controls, optimise data acquisition sequences and so on. Thus I think it is important the authors provide specific information regarding the ultrasound machines used during the delivery of the ultrasound training module. If portable machines with a range of pre-set protocols were used this should be stated to assist readers to understand the reason for the lack of in-depth technical training in the module. The transfer of learning is always maximised when the equipment used in a training setting replicates the equipment found in regular clinical use. Therefore it could be useful to readers planning to replicate the study to know if the machines used in the training module were the same as those currently in use by qualified internal medicine specialists in the clinic where the study took place.

2 The second sentence of the Method section states the workshop was “led by subspeciality fellows, staff and senior medical resident volunteers”. Again, for the benefit of readers seeking to emulate the educational approach, I think the authors should state how the resident volunteers were recruited and mention if any processes were in place for situations where an unsuspected abnormality might be detected during such a training session. Finally, who comprised the “staff” referred to in the statement? Given their obvious technical expertise, were the staff sonography technologists? If these experts were not employed, the authors might care to say why they were not asked to assist in the delivery of the course.

3 It appears 76 interns completed the training module which comprised 80 minutes of “hands-on” practice. Clearly students were required to rotate around a variety of stations however it is not clear how much time individual students spent at each station performing the various tasks. Perhaps I am missing something but what was the total amount of time spent in delivering the “hands-on” practical element of the module given the size of the cohort? Again, this clarification may be helpful for others who seeking to replicate the training module.

4 Do the authors have any explanation for the discrepancy between the numbers
of participants who completed the pre-intervention survey and those who completed the post-intervention survey?

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