Reviewer's report

Title: Feasibility and accuracy of point-of-care pocket-size ultrasonography performed by medical students

Version: 1 Date: 4 April 2014

Reviewer: Daniel J van Hoving

Reviewer's report:

Thanks for allowing me to review this manuscript. This manuscript describes the use of point-of-care pocket-size ultrasonography performed by medical students. Although the scientific rigor of the study methods are questionable, I do believe that this manuscript add to the scientific body of knowledge regarding the use of ultrasound in everyday practice.

- Major Compulsory Revisions

1. A significant amount of bias (diagnostic review bias) were possible introduced. Specialists were used as ‘gold standard’ to interpret the students’ images. Please describe the qualification of these specialists and whether they were blinded to the students interpretation.

- Minor Essential Revisions

2. Please clarify how students were selected if more than 30 volunteered?

3. A significant amount of bias is present in the study:
   - Selection bias: Number of patients scanned per student ranged from 1 – 27. Nine students didn’t do any scans and were excluded.
   - Spectrum bias - Students selected which patients to scan
   - Partial verification bias - Students selected which images to be interpreted
   This was acknowledged by the authors in the Limitation section, however, the authors only listed reasons for selection bias but didn’t discuss the estimated effect of it on the results.

4. Another limitation that should be addressed is the fact that the diagnostic accuracy only included acceptable images. There were a 25% loss of patients in the cardiovascular group and 15% loss in the radiological structures group, this would most likely dilute the true diagnostic accuracy and should be discussed or mentioned.

5. The writing style are acceptable, but please correct the following:
   - P1 para 2 line7 – Inappropriate use of semi-colon
   - P5 para 3 line3 – Should be Clopper-Pearson
   - P7 para4 line10 – Double word (a)

- Discretionary Revisions
6. Numbers under ten are usually written out

**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