Reviewer's report

Title: Improving Accuracy in Assessing Pulmonary Edema on Bedside Chest Radiographs Using a Standardized Scoring Approach

Version: 6 Date: 5 May 2014

Reviewer: Freedom Nkhululeko Gumedze

Reviewer's report:

Major Compulsory Revisions

1. The authors claim their scoring system perform similarly to existing methods such as logistic regression. They contend that their method is better than current scoring systems "...which are generally difficult to update with new sets of data...". The confirmation of their method as a better may require applications in larger/different datasets or simulations as they admit that this paper "...is a working example"

2. The authors claim that we Bayes classifier works with continuous features yet the implementation for continuous features is inherently discrete. How is the number of groups M determined i.e. how many quantiles should be used for a given continuous feature?

3. Page 9: The prior probabilities are both assumed to be 0.5. A sensitivity analyses for the prior probabilities needs to be considered.

Minor Essential Revisions

Page 5, 2nd para, 1st sentence: Reconstruct sentence and check spelling "... the a posteriori.."

Page 11, 3rd para, 1st sentence: Rephrase sentence as "An examination of Table 8 shows..."

Page 25, Table 3: Show both odds ratios and their confidence intervals (to 3 decimal places).

Page 26, Table 4: Show both odds ratios and their confidence intervals (to 3 decimal places).

Figure 1: Label both y-axis and x-axis. Give a title for the figure.

Discretionary Revisions

None
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.