Reviewer's report

Title: Canadian Emergency Department Triage and Acuity Scale: Implementation in a Tertiary Care Center in Saudi Arabia

Version: 2 Date: 4 May 2010

Reviewer: Lee A Wallis

Reviewer's report:

Thank you
This is an interesting paper and adds value to the world's literature on triage. It is novel, being the first work from Arab countries on triage. However, these points must be addressed first. If done then I would like to see it in print.

Major revisions:
1. The data are old – 2004-2005. The authors do not justify why this is. It is now mid 2010 and I would want to see at least a comparison with newer data to see if things have changed. I think these data are too old to add value as they currently stand: they reflect what happened several years ago and therefore are not that helpful in decision making etc.
2. Background:
   a. para 1 last line: there is good evidence that this is not true in many systems, so please defend this statement.
   b. para 3: need to explain why triage is needed in your ED. Is it overcrowded?
3. Methods:
   a. What were the methods for data extraction from the folders? What happened to missing data?
   b. Why are the data being published so late?
   c. Who set the 2% target for LWBS? It is not referenced
4. Results:
   a. 25 patients at random a day for 4 months (120 days) should be 3000 patients. You analysed 1209. Why? How many were extracted? How many had incomplete data? More detail needed.
   b. Level I&II are only 0.6% of total workload. Is this comparable to other CTAS study populations? Does it limit external validity? Needs to be in discussion.
   c. Performance against CTAS targets in the fractiles was poor. Why? Needs to be in discussion.
   d. 6.7% hospitalised surely limits external validity? For instance, here we hospitalise over 45%. UK is about 15%. Needs to be in discussion.
   e. 9.8% LWBS seems very high and may limit external validity. Yu set a 2%
target, why is this so poor? Needs to be in discussion.

5. Discussion:
   a. Table 1 is first referred to here. Needs to be mentioned somewhere in results. Also table 1 doesn’t explain what the figures are. I assume they are minutes.
   b. Para 2 last line is speculation as the study has not looked into this. Needs to be clarified.
   c. Para 4: if up to 15% LWBS, why did you set 2%? 15% seems excessive – we usually aim at 5% maximum. Why 15%? Why 2%?
   d. Para 4 last line: what does this say about your ED? Is it good, bad?

Minor:
6. The grammar needs work throughout – random commas, several spelling mistakes, etc

7. Discussion Para 1: “as acuity levels decreased, LOS decreased” is duplication of the prior sentence and can be removed.

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

Quality of written English: Needs some language corrections before being published

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