Reviewer's report

Title: Magnitude and factors associated with asthma among under-fives in Mulago Hospital Kampala Uganda: a cross sectional study.

Version: 1 Date: 8 May 2013

Reviewer: Paul Mullan

Reviewer's report:

• Major Compulsory Revisions

The author must respond to these before a decision on publication can be reached. For example, additional necessary experiments or controls, statistical mistakes, errors in interpretation.

1. For readers who want to reproduce the study, the “questionnaire that was administered by the study nurse” should be an included figure.

2. Pg 7. Please state where these case definitions came from. Major guidelines? Local expert consensus?

3. Pg 10. Confused by the children recruited and who these 372 were dropped from. Please either make into a figure or clarify language.

4. Kappa for xray reviewers is mentioned in the methods but I did not see the kappa in results.

5. Pg 13, line 9: “thus reducing the role…” This and many other statements in discussion appear to state causality from risk factors identified to the outcomes tracked in the study. This type of study design can only imply association and not causality. Change wording to reflect the study design’s inherent limitations in this regard. Other examples are pg 14 line 1 (“demonstrated”). A better expression of results is pg 14 line 11 “no association…”.

6. Pg 16 last sentence. I believe you meant to write “Diagnosis” instead of “management” as the whole article was about mis-diagnosis (you were not comparing salbutamol to epi to mag… etc.)

• Minor Essential Revisions

The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.

1. OR and AOR. OR is mentioned in methods but AOR in results. Please clarify distinction or keep uniform.

Background: Cite Bittimwine reference more formally per journal guidelines.

2. Pg 7. Sentence “Children who needed…” should be after reference 23 or sounds like research > clinical priority.

3. Pg 7 “expert panel.” State whether these people include study authors.

4. Pg 11 4th line: “allergy in a child”; is this the patient or a sibling? Clarify.
5. Pg 12 4th line: Please add reference for 0.1% stat.

6. Pg 12 12th line: “asthma in the offspring” - Confusing. Offspring meaning this patient or the patient and their siblings. Please clarify.

7. Pg 12: “regardless of the geographic setting.” This statement is too broad as the mother and child do live in the same geographic setting as well as share genetic traits. Soften this conclusion.

8. Pg 12: 2nd to last line: “The reverse is true in Africa.” Africa is so big and diverse that I would be hesitant to make this broad of a statement and instead state specific areas where this is true. Other instances of “In Africa” are noted elsewhere and should not be stated as this study was based in one area of one of Africa’s 47 countries.

9. Pg 15 last 6 lines: Clarify as it seems to state that the expert panel had limited access in one sense but later states that they had “full access.” Explain exactly what they did and did not have access to.

10. Pg 16 6th line: “there are no studies...”. I questioned the validity of this statement as I have come across related articles. On a pubmed search of “asthma severity AND environmental and genetic factors” there are 148 articles as of 7 May 2013 (clearly some of these are not specific to this exact topic but to say there are no articles on this topic might be inaccurate).

• Discretionary Revisions

These are recommendations for improvement which the author can choose to ignore. For example clarifications, data that would be useful but not essential.

1. Abstract Results: delete “representing 8% of total participants.”

2. Pg 7 after nasal epithelium add “and removed.”

3. Pg 7: Please confirm it was an ultrasonic nebulizer that was used and not a pressurized baffle or electronic nebulizer.

4. Pg 9: After Pakistan, add “by”

5. Pg 15 line 3: delete “only”

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

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