Reviewer’s report

Title: Interns' knowledge of clinical pharmacology and therapeutics after undergraduate training in Nigeria

Version: 1 Date: 15 April 2009

Reviewer: Ravi Shankar

Reviewer's report:

GUIDELINES
---------

1. Is the question posed by the authors well defined?

At present no. We are not told about the background of training in Clinical Pharmacology & Therapeutics (CPT) in Nigeria. Is there any training in CPT during internship? If no, then authors should justify why they chose to do this study among interns.

2. Are the methods appropriate and well described? Unable to say at present. The authors should present an outline of the structured questionnaire used in the appendix.

3. Are the data sound? I can comment only after the authors respond to the methodological queries.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition? On the whole yes.

5. Are the discussion and conclusions well balanced and adequately supported by the data? Not always. See the detailed report below.

6. Are limitations of the work clearly stated? See detailed report.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? See below.

8. Do the title and abstract accurately convey what has been found? No. The title talks about Nigeria but the study is based on 81 interns in few Nigerian medical schools.

9. Is the writing acceptable? Yes. However, improvements are required in certain areas.

REPORT TEMPLATE
-----------------
For the questions below, please delete the options that do not apply.

Reviewer's report

-----------------

- Major Compulsory Revisions

Background section:

1) The authors talk about integration of CPT in the undergraduate medical curriculum in a number of countries. They should explain what they mean by this term?

2) During which years is CPT taught in Nigeria and how is it taught?

3) The authors should describe Nigeria in brief and the present status of medical education in Nigeria if international readers are to make sense of the Background section. 4) Also it is not clear about whether the authors would like a certain amount of CPT teaching during internship. The internship stage in Nigeria should also be briefly described. Is there formal CPT teaching during internship?

5) The authors should also describe briefly the nature of the CPT curriculum in Nigeria. Is it similar in all medical schools?

Methods:

6) ADRs could be related to the pharmacological action of the drug and dose or may not be dose related. The authors should explain why they chose experience with ADRs as one of the parameters to be studied.

7) Also I am not sure that data from 81 interns in a selection of medical schools can be said to represent the situation in Nigeria. The authors should justify how their results can be applied to the whole country.

8) Some information about the hospitals selected for the study is also required.

9) I am not sure that the use of leading questions and a yes/no response can study perceived deficiencies in CPT training. Was there a provision for the respondents to give their own opinions in the questionnaire?

10) When do students join medical schools in Nigeria, what are the eligibility requirements, how are they selected?

Results:

11) The initial part of the Results section and Table 1 do not give the same information regarding medical schools in Nigeria? How many medical schools are there? Where are they located? Are they funded by the government or are they run by the private sector? 12) What is the period of internship in Nigeria? Had the respondents finished their internship or were they doing it? The pattern of internship in Nigeria has to be described if readers are to make sense of the rotations described.

13) The sentence about CPT training should be brought to the introduction. How are students taught? What methods are employed?
14) The last sentence on page 6 continuing on to page 7 is unclear and should be better explained.

15) Internship training and undergraduate CPT training is mixed together. Does specific training in CPT occur during internship? Interns may of course be told about medicines by their clinicians but the effect of this non formal ‘training’ may be difficult to assess.

16) I am not sure about the list of low risk and high risk drugs described by the authors. How did they arrive at this classification?

17) A major problem area for me is the overlap between undergraduate CPT training and training during internship (number of rotations, and types of postings) in the manuscript. This overlap may make it difficult for the readers to draw useful conclusions.

Discussion:

18) 24.2% of respondents rated their knowledge of CPT as excellent. Does this not mean that CPT teaching in Nigeria may be good? This has been again emphasized by the authors in the last sentence, paragraph 2, page 10.

19) How do you reconcile this with the statement that about half the respondents had problems with prescription writing, a basic skill for a doctor?

20) Again the problem is the mixing up of internship training with the undergraduate CPT training. I agree that internship is an important time for picking up prescribing skills but this mixing may make it difficult for the authors to make recommendations for undergraduate CPT teaching.

21) Page 13. The conclusions mentioned in the last paragraph of the discussion and the opening statement of the Conclusion section appears to be contradictory.

Tables:

22) Table 1: What is the significance of the Universities where the students were trained in CPT? Do these universities follow different CPT curricula?

References and manuscript:

23) I think in the References the authors have mainly concentrated on the British scenario, Nigeria and India. Significant work on CPT has been carried out in other developing countries and the authors should include some of these in their manuscript.

- Minor Essential Revisions

1) References 3 and 10 look like they are same.

2) The term ‘Foundation year 1’ doctors should be explained for international readers.

3) Discussion section: Page 13, the six geopolitical zones of Nigeria should be explained for an international audience.
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: Yes, but I do not feel adequately qualified to assess the statistics.