Reviewer's report

Title: Study Protocol: The Registrar Clinical Encounters in Training (ReCEnT) Study

Version: 3 Date: 23 October 2011

Reviewer: Ilkka Kunnamo

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Question: Will the study design adequately test the hypothesis?

Recording data on 60 encounters is not sufficient to describe the spectrum of problems encountered by GP trainees. It is probable that the most common reasons for encounter dominate (with varying relative frequencies), and more infrequent reasons for encounter are not included. However, they latter may be very important for learning. A major compulsory revision: address this problem in the protocol.

In many countries, e.g. in the UK and in the Netherlands, it would be possible to extract all the data from electronic health records, enabling the analysis of all patients encountered by the registrar. As electronic health records will be used by 100% of GPs and GP registrars in the future, the spectrum of cases encountered by each registrar can be analyzed for educational purposes, and need for additional training/experience can be identified. Analysis of electronic records will probably provide better data (provided that reasons for encounter or diagnoses are recorded).

If practitioners are requested to record consecutive encounters, selective reporting may occur, particularly under heavy workload.

A major compulsory revision: The influence of this potential reporting bias should be mentioned in the protocol and there should be a notice on how the authors try to control that this bias is minimized (e.g. by comparing the number of encounters in a time period and those reported).

However, if electronic health records are not available, the study protocol by Morgan et al. can be used to study local patterns of practice.

Question: Are sufficient details provided to allow replication of the work or comparison with related analyses: if not, what is missing?

The results will not easily be comparable to results obtained from other countries or even from other regions in Australia, as the circumstances (reflected in the variables to be recorded) differ in different regions.

Question: Is the planned statistical analysis appropriate?
Testing the multiple associations mentioned in the study hypotheses creates a problem in the interpretation of results. Some of the associations are obvious without studying (you see more rural patients in rural settings). Many of the factors mentioned in the hypotheses do not occur frequently so that no statistical associations can be observed and no conclusions can be made.

A major compulsory revision: A notice on the influence of multiple association testing should be included in the protocol.

**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.