Reviewer's report

Title: Sleep and recovery in physicians on night call: a longitudinal field-study

Version: 1 Date: 30 March 2010

Reviewer: Steven Rose

Reviewer's report:

Major compulsory revisions: None

Minor essential revisions:

1. The manuscript would be strengthened by more information comparing the sleep and activities of the PENT group and the ANEST group during night call.
2. Please further describe the reason(s) the authors state the 16-hour shift is "close to the upper limit for a biologically sound working schedule."
3. Please more clearly address the recovery characteristics between the ANEST and PENT groups. This was a key aim of the study.
4. Were there any adverse events/outcomes during the study period?

Discretionary revisions: None

General Comments:

1. This ambitious manuscript addresses issues of importance and interest to the medical community and public (duty hours/impact of sleep deprivation on the quality and safety of patient care/recovery after night call). The authors questions are well defined.
2. The methods of this study are clear and well defined.
3. There are weaknesses in the data that include a limited sample size, the inclusion of ENT physicians after a sufficient number of pediatricians could not be recruited, moderate participation rates, and several anaesthesiologists were excluded due to technical errors in data collection.
4. The manuscript adheres to relevant standards.
5. The discussion and conclusions are sound based on the data presented.
6. The authors clearly outline several study limitations.
7. The manuscript is well referenced, acknowledging the work of others.
8. The title and abstract are satisfactory.
9. The quality of the writing is very good.

Level of interest: An article of importance in its field
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.