Reviewer's report

Title: A one-year observational study of all hospitalized and fatal acute poisonings in Oslo: Epidemiology, intention and follow-up

Version: 1 Date: 27 June 2012

Reviewer: Anna Jönsson

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Major compulsory revision

1. What is the role of EMA in poisonings in Oslo? Is it an outpatient clinic? The study claims to include all hospitalizations due to poisonings in Oslo. Yet it is stated in the discussion that “Double the number of patients (n = 2348) were treated at the EMA in 2008 compared with all Oslo hospitals, so the incidence of hospitalized acute poisoning in Oslo was probably higher [12].” Based on the last sentence it seems like you cannot answer the main aim of the study after excluding poisonings at the EMA, please clarify.

Minor essential revisions

2. Abstract- It is stated in the abstract that one aim of the study is: “…whether a change in over-the-counter sales of paracetamol had an impact on the frequency of poisonings”. Please indicate which change was made.

3. Abstract- “The number of poisonings caused by paracetamol remained unchanged…” compared to?

4. Methods- Please define toxic amounts. “Poisoning was defined as exposure to a substance in toxic amounts.” Was it all doses above the recommended dose or was another definition used?

5. Methods- Poisonings are often caused by more than one agent. Why did you define a main agent causing the poisoning and why was it not possible to have more than one toxic agent?

6. Results- Please look over the use of i.e. throughout the manuscript.

7. Results- “The classification of toxic agent(s) by hospitals was based on statements from patients (n = 759, 71%), laboratory findings (n = 529, 50%”)…” The sources add up to >100%, is it possible that the classification of toxic agent could be based on more than one source? Please clarify in the methods how this was done.

8. Results- in the background you describe that sales of paracetamol outside pharmacies were introduced in 2003. I assume that paracetamol was sold in pharmacies as well. Is it possible to distinguish between paracetamol bought in pharmacies and paracetamol bought outside pharmacies?
9. Discussion- “However, a quarter of patients who repeatedly poisoned themselves changed their poisoning intention in the 2003 study [8], illustrating co-morbidity between substance abuse and suicidal behavior.” How can changing their poisoning intention illustrate co-morbidity between substance abuse and suicidal behavior?

10. Conclusion- According to the manuscript the aim of the study was to look at hospitalized acute poisonings, please rephrase the first sentence in the conclusion. “The annual incidence of acute poisonings was 2.0 per 1000 for both sexes, which was not significantly different from 2003”.

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

**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.