Reviewer's report

Title: Predictors of Poisoning-Related Fatality: A Hospital-Based Prospective Study

Version: 2 Date: 4 May 2007

Reviewer: Michael Eddleston

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General

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. ‘Poisoning was defined as exposure to drugs or any environmental substances resulting in an ED visit…’

   Does this include adverse drug effects of prescribed medication??

2. What proportion of patients admitted to the hospital with poisoning were recruited to this study?

3. ‘All enrolled patients were carefully tracked throughout the hospitalization and follow-up periods to document final outcomes. ….. Those who died of poisoning exposures during the hospitalization or within a short time after discharge ….’

   How were patients followed up after hospital discharge? How successful was this follow-up - what was the drop out?

4. How was suicide intent assessed? Through which scale? How accurate was it in ill or unconscious patients?

5. Information on the concomitant use of alcohol could only be known in 62.4% patients, and 17.3% of them used alcohol in the episode.

   How was this information obtained - alcohol breath meter? Blood level?

   Why was alcohol use on admission not recorded for all patients? I wonder what biases this relatively low number brings into the study? Was it not possible to get the information from unconscious patients or fatal cases, markedly biasing this analysis?

   What proportion of patients had alcohol dependency, or withdrawal later in their hospital admission? What proportion of patients were regular users of alcohol?

6. According to the previous report of PCC, the poisoning-related fatality rate was estimated around 5.7% in Taiwan [2], and our study found it to be was 4.3%, a very close figure.

   The study does not address deaths that occurred before hospital admission. The case fatality ratio is therefore an inhospital CFR.

7. A major limitation of the paper is that the criteria have not been independently validated using another data set. This needs to be acknowledged at the end of the discussion.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

The studies of regional epidemiology cited in the introduction are rather random. Regional variation in poisoning admissions has been comprehensively reviewed (Eddleston 2000, QJM 93:715-731)

‘Among the agents, pesticides had the highest fatality rate’
Since there is no time denominator (per year, etc), the case fatality cannot be a rate. It is either a proportion or ratio (probably, the latter is better since the abbreviation CFR can be kept). This is a common mistake that is discussed by Schulz in the Lancet (see Lancet 2002; 359: 57–61).

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests