Reviewer's report

Title: Number of substances used related to increased risk for unnatural death. A Combined Medico-Legal and Case-Record Study.

Version: 1 Date: 16 February 2009

Reviewer: Peter Silverstone

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Overall, the information presented in this paper if of interest, and is novel. It definitely warrants publication eventually. However, the writing of the paper is quite poor, with a few examples pointed out below. The paper needs to be carefully edited by somebody more fluent in English to avoid both the multiple typographical errors and the very poor grammar which made this paper much harder to read that it needed to be.

Major Compulsory Revision

1. In the Discussion they state that “Additional drugs are common in fatal heroin overdoses [41]. However, to our knowledge, a linear trend with every single drug has not previously been shown.” They then fail to discuss why their findings may differ from the literature, and why this may be the first study to have this finding. There needs to be significant discussion of this point. Related to this, in a subsequent paragraph, they state that “On the other hand suicide, in contrast to undetermined suicide, appeared unrelated to the number of drugs abused.” However, their explanation for this is very superficial, and doesn’t seem to clarify why there may be such major differences between these two states and also the possibly implications of taking heroin in terms of this risk.

Minor Essential Revisions

2. Minor issues such as typos and poor phrasing and grammar need to be addressed throughout. I have only presented some of the most obvious issues below in the introduction, but there were many more and they continue throughout the paper.

3. Page 3 - “manner: .accident, suicide or homicide” where a full stop is in place in front of “accident”

4. Page 3 “Positive alcohol in blood at autopsy in suicide is rather common around 40%” should read something along the lines of “Positive findings of alcohol in blood samples taken at autopsy occur in about 40% of suicide victims”

5. Page 4 “A study on medico legally examined fatal intoxications among” should be something along the lines of “A medico-legal study of fatal intoxications in”

6. Page 4 “A combination of drugs is common in fatal intoxications [14,17,23-25]. On the average 3.8 drugs were found at autopsy” should instead state something
along the lines of “A combination of drugs is frequently found in intoxications that prove fatal [14,17,23-25], with a previous Swedish study finding an average of 3.8 drugs at autopsy”

7. Page 4 – final paragraph doesn’t add to paper and should be deleted as it doesn’t relate specifically to the subject group being considered.

8. Page 5 – “The present study deals with a sample medico-legally autopsied cases of former in- and outpatients at the Addiction Centre in Malmö University Hospital including independent information from case records and autopsies about previous addiction and causes of death respectively.” The phrase “medico-legally” is not an appropriate one, and there is no “of” before this phrase. There is no space between “Hospital” and “including” and the sentence contains such a lot of information that it is very hard to understand what it is trying to state. It should be reworked along the lines of “The present study examines a consecutive sample of cases autopsied for medico-legal reasons. All of these cases were former in-patients or out-patients at Malmo University Hospital. Independent information about these cases, including previous addiction and causes of death was also obtained”

9. Other glaring examples:

10. Discussion where they state “and nonplanned suicide attempt (but not planned) among ideators.” What does this mean? What is the difference between non planned (which incidentally should be “non-planned”) and “but not planned”?

11. Table 1 where one column is headed “Addicition”

12. Figures 2 and 3 are repeated, and there is no legend (just a title)

**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:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests