Reviewer’s report

Title: Gender differences in acute recreational drug toxicity: a case series from Oslo, Norway

Version: 0 Date: 19 Feb 2019

Reviewer: Kehinde Oluwadiya

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The wording of the Aims section is confusing to me.

"Female drug users generally report poorer physical and mental health than male drug users. To see whether this impacts on presentations to emergency medical services, we describe female patients treated for acute recreational drug toxicity, and compare them with male patients as to their clinical state and toxic agents taken." What do the authors mean by "to see whether this impacts on presentation.."? What is impacting what? The paragraph should be edited so that readers can understand it better.

What is the Euro-DEN Plus data registration tool? This needs to be described a bit more as to its purpose and advantage over generic clinic forms?

Under settings, the authors claimed that "Patients cannot present at hospital emergency departments directly, but must initially be seen by a doctor in primary care or by the ambulance service". So, what happens when a patient comes or is brought directly to the hospital emergency department?

72 cases were transferred from OAEOC to OUH. How were they analysed? Once (i.e. if a case has been analysed for OAEOC, it is excluded from OUH, and vice versa) or repeated for each of the centre. This wasn't clear from the text.

What the authors refer to as outcome measures are not really outcome measures. They are statistics and should come under that section

Table I and II need to be edited. Neither the columns nor the rows add up, so one cannot say what the percentages in the brackets are referring to. What's the total row adding up?

Line 56, discussion page: "There were few gender differences apart from this" should read "There were no other gender differences apart from these"

The discussion is rather shallow. The authors need to discuss further the reason for the surprising finding of small gender differences in their studies in the light of previous studies. What are the
peculiarities of their study population leading to this surprising finding? Can it be due to the type of drugs used? Perhaps, the authors can control for GHB, and see whether the severity outcome will still be the same?

Finally, the title is a little bit misleading. The study is a comparison of toxicity among the two genders, not just a study of toxicity among women.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
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