Reviewer’s report

Title: Drug use and associated factors among pregnant mothers attending antenatal care at governmental health centers in Bahir Dar city administration, Northwest Ethiopia, cross sectional study.

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Reviewer: bekana Kebede

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Date: May 20, 2014

Reviewer: Bekana K Tadese

General comments:

This is a straight-forward study that could adds to existing literature about drug use among Pregnant women. Also, the study could help increase understanding of local issues in drug use among pregnant mothers,

Yet the study needs to improve substantially on several issues. These include description of objective, methods, presentation of the results, and interpretation of the data. Also, the English will need extensive editing.

I will outline some major issues below.

Major revisions:

1. Please clarify the aim of the study or the research questions clearly? The study topic starts with ‘Drug use’ and I thought women using illegal drugs or Injection Drug Use (IDU). Under your abstract it says “….. the aim of this study was to assess drugs prescribed and associated factors during pregnancy among pregnant women attending ANC service”. It would be essential to routinely inquire about the woman’s self-medication practice to provide appropriate advice to the pregnant women.

2. The authors need to clearly describe what is drug use? The topic says “Drug use” and the objective however deals with PRESCRIBED drugs only. You better give operational definition to avoid confusion OR modifying your topic to PRISCRIBED drug use as your study does not include use of other drugs (see also question 1)

3. Your background lack information about country specific drug use regulations or prescription (referring to the Ethiopian Food and Drug Authority), some factors from previous studies and the pregnant women, ANC, as well as the background of drug prescribers (including who is legal to prescribe drug?(see also question
1. If that literature is sparse, the author should clearly say that.

4. Your study was conducted only in Health center setting. It does not cover hospitals or private health facilities. In Bahirdar City women can mostly access the city Hospital or private facilities, where harmful drugs might have been largely prescribed. This could lead to bias and hinder its generalizability.

5. In addition to above, in Ethiopia above half percent of the pregnant women don't show-up for ANC. These women might use self-medicated themselves with either over the counter or prescription drugs which is the most serious one. (see also question 1). Your study lack to address these women which could lead to biased report.

1. Methods: The authors need to clearly describe how charts were selected or identified for review? The study reported all ANC cards of 510 participants were reviewed in this study” while majority of your study population were ANC attendants coming for the first time and others referred from other, where you can’t find their chart. Were the women included only at outpatient or admission? Did your study consider the drugs swallowed(PO) or injection or inhaled or all of them in your study?

2. Your study area was health center in Bahir Dar city administration. I wonder you have also included rural health centers? In addition, one of your exclusion criteria is pregnant women from outside city. In addition, it seems high flow of pregnant women at h you interviewed 510 pregnant women within the study period of (June 20-July 10 including weekend days) data collection days, while most women actually don’t show up- for ANC in the region.

3. Please describe how and who conducted the chart review in your methodology? You reported data collection format was used to review chart. Was there missing data? if yes, what did you do? And you again used separate semi-structured questioner to capture information on sociodemographic data, obstetric and medical history of the pregnant women. Did you first collected from charts or you first conducted interview? How many pregnant women were excluded due to any of your criteria like mother referred from outside city or no ANC chart/no record/missing?

4. What is your justification to use P<0.2 for the Hosmer and lemeshow test?

5. What do you think is the most source of bias in your study? How did you try to avoid it? For example, from your report majority (about 40 %) the mother was uneducated or unable to read or write. They may not know or even remember the name or type of drug they were given to swallow or they were injected at hospital admission. In addition, the region has poor health facility record.

Result and conclusion:

1. Some of your percentage result doesn’t add up 100 or above 100. Table 1: marital status, educational status. Table 2: “reason for visiting health center on date of interview” total number adds up more than 510, and percentage adds up 101.6%?

2. Your result report high proportion of harmful drugs prescribed for pregnant
women. Nearly 11% of the pregnant women were prescribed with drugs from category D or X of the US-FDA risk classification. Do you suggest your study subject should also include the prescriber (health professionals) on structured interview? If so, the high harmful prescribed drug would have high association with the prescriber status instead of the pregnancy status or gravida.

3. In the result part, I found you have some reports about the health care provider associated with, but in the methodology your study population is the pregnant women only, and you have no information on how you got information (data collected about the health professionals, drug prescriber), you didn’t report on the professionals data and how you collected about them? Because usually the women does not know the educational status or information of the provider. If so, please can also present the drugs prescribed based on the education status or type of profession of prescriber in the table or graph or text. That is important for recommendation on who is prescribing harmful drug.

4. Your recommendation should be based on your study objective and result.

Minor essential revisions:
1. You manuscript has no page number to refer my comments.
2. Please identify the ethical clearance in comprehensive way. Did you obtain permission from the regional health office or the health center?
3. Table 1: identify age in years or months, income in $ or birr.
4. Avoid or minimize redundancy of text, and also for those already mentioned in tables (table 1, table 2)
5. How did you report those with two or more drug exposure? Was the 11% harmful drug exposure were those exposed to single prescription?
6. Please identify and acknowledge the funding organization, and offices who provided permission for your study.
7. It is preferable to put the percentage of drug use in these countries (discussion paragraph 2,4) in bracket for ease of comparison.
8. Please check the last sentence of your discussion part. It is better to discuss them separately. “The reason for this may be as no of pregnancy increases, risk of maternal illness increases and as educational level of the provider increases, the probability of prescribing many decreases”
9. Under conclusion, “Therefore, it is essential to upgrade health professionals who are providing ANC service from diploma to Degree level to reduce the risk of prescribing unnecessary drugs to pregnant women”. Do you have any evidence from your report the diploma holder were the most harmful drug prescriber? What if it was based on degree holder OR type of professionals (like NA, RN, HO, MD) OR the setting itself?

Discretionary Revisions:
1. Define abbreviations under tables in all cases and graphs.
2. If Quinine is the only option of intervention for severe malaria diagnosed
pregnant women, what would you suggest?
3. Your conclusion needs revision. Under conclusion, second sentence” gravid”??
4. Any recommendation for women, and for further study?
5. You don’t need acronyms separately, if you have already listed in first case in the body of text.
6. You can avoid number if you put percentage in the graph.(figure 2)
7. Re-edit figure title avoid unnecessary extension (like figure 3).

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Not suitable for publication unless extensively edited

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'