Reviewer's report

Title: A cost analysis to estimate the average resource utilisation and cost associated with administering risperidone long-acting injection in the Australian Community

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Reviewer: Okore Okorafor

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Major Compulsory Revisions:

1. Background section should provide more information on how community health services are organised. What are their responsibilities within the Australian health system? The reader does not get a sense of the other responsibilities of this level of care, and therefore no idea of the relative ‘burden’ that administration of risperidone injections poses to this level of care. It is important to provide the reader with this overview. In addition, the background does not provide the reader with a sense of the scale of the intervention of interest:
   How many patients are seen per annum?
   How many facilities are involved in total?
   How many community health care centres are there in Australia?

2. The study assumes equal efficacy between the two treatments (2 weekly versus 4 weekly). This is an unreasonable assumption. There must be a reason why the drug has been administered every 2 weeks instead of on a monthly basis or 2 monthly-bases for example. Without any evidence that the same level of efficacy will be maintained if the treatment regime is changed, this assumption cannot be made. Indeed, the 2-weekly administration of the drug must have been prescribed by the manufacturing company to achieve maximum efficacy. Cost saving derived from changing the frequency of drug administration is of no importance if the potential loss/gain in health outcomes is not assessed. Consequently, the result of this research carries very little value. This is the main flaw in this paper.

3. The paper is not well structured. This relates especially to aspects that should be under the "Methods".
   a. The methods section should justify all the approaches used. This is not done.
   b. The section should address data collection tool, sampling approach, non-response, representativeness of the sample to the population (both in terms of distribution and sample size-population ratio), transformation of variables, etc. While some of these were included, there is no discussion on the appropriateness of the sample size. Some of the aspects of the study that should be discussed under the methods section are found in the “results” section. For example “Data clarification” and discussions around non-response rate should be
under the “Methods” section.

c. The analysis of data is not well described, and the description of the analytical approach carries into the results section.

4. The last sentence in “Survey Development” It is not clear why the respondents were asked for the number of outreach visits that would have occurred if risperidone did not have to be administered. More importantly, it is not clear how this information has been used in this study.

5. In the 4th paragraph of "Resource Valuation": Do medical personnel administer other treatments to other patients as well when they are out on these outreach trips? How does your study adjust for this in calculating the actual cost of administering risperidone?

6. In the second paragraph of “Limitations”, it is puzzling that the cost of the injection itself is not included. If the frequency of administration of the drug is reduced, surely total consumption of the drug will reduce and subsequently, the total annual expenditure on the drug itself will be reduced. This needs some further explanation.

7. There is no reference for the following:

Background Section

a. 1st sentence: “Community health services provide a range of health care including the administration of injections...”

b. All statements in the second paragraph

c. Last sentence of paragraph 4

d. 1st sentence of paragraph 5

e. In the section “Resource Utilisation, information on average national risperidone should be referenced

Minor Essential Revisions

1. In the Background section: paragraph 3 – last sentence: “case managers whose allied...for their clients for a case management session”. Reading through the paragraph, I think the sentence should conclude with “injection appointment” rather than “case management session”.

2. In paragraph 5 of the Background, there is reference to an alternative drug “paliperidone palmitate” that can be administered once a month. However, there is no explanation of the relative efficacy of this alternative drug. This is important if this other drug is being proposed as an alternative.

3. 3rd paragraph of Resource Valuation: What does the MBS item numbers of 81300 to 81360 mean?

4. Figure 3 is not included in the manuscript
Discretionary Revisions

1. In the last sentence in “Survey Administration”: there is no mention of the potential impact of the AUD $100 payment on the distribution of responses and the quality of data received. What (dis)incentive could this payment have created?

2. 

Level of interest: An article of limited interest

Quality of written English: Acceptable

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