Reviewer's report

Title: A Canadian naturalistic study of a community-based cohort treated for bipolar disorder

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Reviewer: Pratap Chokka

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The article by Sagman et al had the potential to address clinical questions in a "real" life setting. Unfortunately there is ambiguity and a disconnect from what the study purports to do and to its final conclusions. Although the need for naturalistic studies is vital, this study seems to be skewed in favoring the use of Olanzapine and seems to counteract the spirit of such research. The investigators were aware of the sponsors of this study and were "requested" to enroll at least 60% into the Olanzapine cohort. Although the final decision in treatment choice was left to the investigator, there exits the potential for a reporting bias for treatment outcome, adverse events etc favoring Olanzapine.

The major concern I have with this paper is the failure to report the dosages of medications anywhere in the study. What was the mean dosages of Olanzapine and the other SGA. What was the mean dose increase(change) of Olanzapine. Are the dosages within clinically acceptable ranges and were they similar across both cohorts? Although other SGA are used the type,frequency,dosages and distribution of these drugs are not mentioned. Similarly the use of the mood stabilizers lithium and divalproex are mentioned, but one does not have a clear idea of the distributions of these medications between and among the cohorts. Furthermore another flaw is lack of baseline serum levels or follow up levels at any time of assessment for the mood stabilizers. It is not known if these serum levels were therapeutic at any time during the study. If this was not done, this would be a major deviation from the usual standards of practice. This is a major flaw, and renders the results meaningless.

Furthermore, the authors need to explain the rational as to why the investigators did not have to report adverse events for the "Other" cohort group or only the "serious" adverse events for Olanzapine. This makes no sense and perhaps may partially explain why Olanzapine had a better outcome. We just don't know.

Overall this study needs major revisions to support their conclusions. Based on the submitted information this paper should not be accepted. However, if the above information exits and is provided this would lend much clarity and an understanding of the conclusions in a much more balanced way.

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 have and continue to receive speaking honoraria and research funding from Eli Lilly. As well I sit on the national advisory board for Eli Lilly.