Reviewer's report

Title: Choice of observational study design impacts on measurement of antipsychotic risks in the elderly: a systematic review

Version: 1 Date: 26 August 2011

Reviewer: Emilio Sacchetti

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- Major Compulsory Revisions

1. The techniques of instrumental variable analysis and self controlled case series should be described with more details, since they are not probably familiar with conventional readers.

2. Authors miss the historical perspective that saw RCTs coming years before observational studies, so that it is rather nonsense pretending that RCTs should confirm something that came years after (like at page 13, end, when noting that RCTs have produced no evidence to confirm ...) or thinking of RCTs as something that could compare classes of antipsychotics.

3. The choice of “limiting” data analysis to only four outcomes and excluding other like diabetes is justified by the very personal opinion that the four outcomes selected can be “consistently defined” (why not diabetes?).

4. The discussion is a replication of the results section, and should be expanded.

- Minor Essential Revisions

Page 5, 4th line
“elderly patients to determine”
Elderly patients and to determine

P 7, 6th from end
“relative increased risk”
Better: increased relative risk. This is repeated some times in the following text.

P 10, 3rd from end
“antispsychotics”

P 12, 11th
“significantly increased 50-80% increased odds”
??

P 13, 7th from end
“risk differ between studies”
The preceding verb was the past tense “showed”

P 13 last paragraph
“traditional” is used for “conventional”. The meaning is clear, but this is not the language currently used in psychiatry.

Authors should decide if dots are to be placed after or before the citations.

- Discretionary Revisions
  None

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 have received funding for research, advisory board memberships and/or sponsored lectures from Abbott Laboratories, AstraZeneca Pharmaceuticals, Boheringer-Ingelheim, Bristol-Myers Squibb, Eli Lilly and Company, GSK, InnovaFarma, Lundbeck, Pfizer Inc., Sanofi-Aventis, Wyeth.