Reviewer's report

Title: Positive Predictive Value of a Case Definition for Diabetes Mellitus Using Automated Administrative Health Data in Children and Youth Exposed to Antipsychotic Drugs or Control Medications: a Tennessee Medicaid Study

Version: 2 Date: 5 July 2012

Reviewer: Eric Weinhandl

Reviewer's report:

"For the 76 total adjudicated cases"; typographical error; presumed correct value is 46.

"For this group, 83 cases could not be adjudicated"; this value is obvious, but following text about reasons for lack of adjudication amount to only 74 cases.

95% CIs for sensitivity and specificity are dubious. The investigators took a 60% simple random sample of 187 records and then back-calculated Se and Sp from a subset of the sample (which we can assume was random, because we have no other option). The investigators make a good case for primacy of PPV, so I would suggest that 95% CIs for Se and Sp not be displayed at all; or otherwise, accurately represent sources of stochastic error.

Appendix Table 1; column 1 values under "Adjudicated: Diabetes" heading do not add to 44.

The flow diagram in Appendix Figure 1 is completely confusing to me. The right-hand values (187, 113, 30) need to be updated to reflect shift of records from right-hand side to left-hand side following relaxation of the computer case definition.

Beyond this, MUCH improved manuscript. Thank you.

Level of interest: An article of importance in its field

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.