Reviewer's report

Title: A novel method for studying the temporal relationship between type 2 diabetes mellitus and cancer using the electronic medical record

Version: 2 Date: 20 October 2013

Reviewer: William K Thompson

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Discretionary Revisions:

1. The minor issue is that I found the description of how cases and controls were matched to be a little confusing. I'm unsure what the "minimum of 60 days observation within the time" criterion is. Is that 60 encounters? Please explain further.

Major Compulsory Revisions:

2. The relatively more important issue is the lack of validation reported for the algorithm. Was there a gold standard against which the algorithm was judged? If so, what were the PPV, sensitivity, etc.? Without these validation numbers, all we have is a qualitative comparison with the other algorithms. One of the primary goals of the authors was to select a date for onset of diabetes. How well does their approach work? Does the algorithm agree with clinician chart review? Again, validation results should be reported.

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

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