Reviewer's report

Title: Developing Algorithms for Healthcare Insurers to Systematically Monitor Surgical Site Infection Rates

Version: 1 Date: 3 May 2007

Reviewer: Alain-Jacques Valleron

Reviewer's report:

General
This paper arrives after a series of papers of the same group which have demonstrated that claims-based indications can be used to rank hospitals in terms of SSIs. The goal of this paper is to present a software which allows a routine identification of the hospitals with high rates of SSIs complicating cardiac procedures.

I think that this software may be useful, but am not sure about the choice of the journal. I would have expected to see this paper in a journal of hospital epidemiology or of healthcare, more than in a journal of medical research methodology, just because there is no obvious innovation in terms of "methodology".

The software consists of a series of apparently quite simple packages which are adequately described (extensive user manuals are given as supplemental materials). In the results section, one might have expected to see some kind of assessment of the satisfaction of the users. Instead comparison of data obtained by using the software on two health plans, is presented and I am not sure to identify what are the results. (this is not a paper on hospital infection, but a paper of medical information). Similarly, it's not clear if the discussion of the value of the indicators is really in the scope of this paper (whose goal is to present the software).

I am a little surprised by the "results" section. Knowing that this is a paper of medical research methodology, not of hospital epidemiology I would have expected other results than the mere comparison of 2 health plans: for example, I do not see why the reader of this journal should be interested by Tables 2 and 3 (the % males in the 2 groups of hospitals, the number of procedures, etc.. inasmuch there is no indication on the quality of the databases which are analysed.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

The definition of all potential users of the software should be given. Can the software be used in all of US hospitals. It could not be used in many countries of Europe (where ICD10 replace ICD9). This could be easily clarified.

What next?: Accept after discretionary revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

'I declare that I have no competing interests'