Reviewer's report

Title: Use of routine hospital morbidity data together with weight and height of patients to predict in-hospital complications following total joint replacement

Version: 1 Date: 30 August 2012

Reviewer: Douglas Curran-Everett

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General Comments

In general I am satisfied with the statistical analyses in this paper. I do have some questions and comments.

Minor Essential Revisions

1. Throughout the paper. P values greater than 0.01 can be rounded to the nearest 0.01.

2. Methods, weight change over the 5-yr interval, page 7. If change in weight is the variable of interest, please report the average change in weight rather than weight at baseline and then 5 yrs later.

3. Methods, weight, page 8. Why was weight as quintiles used in the logistic regression? A continuous variable provides more power. A brief explanation will be useful.

4. Throughout the paper, percentages can be rounded to the nearest percent. Does anyone really care about 0.1%? The numbers will also be easier to read.

5. Results, page 10, top. It will help to include the labels 'model 1' and 'model 2' in the text rather than force the reader to remember or refer to somewhere else.

6. Figure 1. The figure is rather clunky. Can it be improved?

7. Appendix 2. The right-hand columns need to be labeled. I assume they are number and percentage. Some of my calculations differ: for example, for 17 thromboemboli, I calculate 17/857 = 2.0 rather than 1.9.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.