Reviewer's report

Title: Determining initial and follow-up costs of cardiovascular events in a US managed care population

Version: 2 Date: 7 October 2010

Reviewer: John H Kalbfleisch

Reviewer's report:

Major Compulsory Revisions

(1) The second column in Table 2 (All Matched Patients) can be eliminated, since readers can compute values in this column (although there is no compelling reason to do this).

(2) Table 3, row 1 (Total patients): only N values are needed. Eliminate the “(n = 29688)” in the title.

Minor Essential Revisions

(3) This point might need clarification. From text (lines 13 and 14 in Results), the costs in Table 4 are cumulative beyond the hospital-index-event. The horizontal legend labels in Figure 2 could be re-labeled (as per Table 4) so readers will not incorrectly conclude the 3rd year has the highest cost.

(4) The multivariable regression model description should indicate “main-effects-only.” There is no manuscript detail that addresses the adequacy of the model used in analysis (does a more complex model provide a better fit, or only a slight improvement – or – what is the assessment of interaction effects among independent variates?).

Discretionary Revisions

(5) Table 5. Presentation of (unadjusted mean costs) in addition to the current ratio of (regression model derived) mean costs would be of interest to readers, since the subgroup mean cost cannot be backward derived from the current ratio of mean costs. However, the ratio of unadjusted mean costs would be similar but not exactly the same as ratios shown in Table 5.
The unadjusted mean costs for the lines in Table 5 would also serve as valuable reference values for future studies and readers. This is the authors decision (whether to include the unadjusted means).

(6) The post-index-hospitalization information certainly attracts the readers attention. Annual case attrition from the index-event is large. Of the 29688 initial cases, 3853 (13%) were evaluable for a 3 year period. I wonder if annual cost statistics during the follow-up period for the 3853 full-record-cases would provide trends different than results displayed in Tables 4 & 5? The noticeable loss of initial cases by year 3 prompts this comment. The decision to show results for the full-record-cases is the authors choice.

(7) Were there any cases where (due to co-existing conditions) the cost was remarkably high (obvious top end outlier)? If so, were these cases eliminated or did they remain in the data set?

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.

Declaration of competing interests:

I declare that I have no competing interests.

John H. Kalbfleisch, Ph.D.