Author’s response to reviews

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

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Author's response to reviews: see over
Reviewer Comments:

Reviewer #1:

- I feel the purpose of the paper is to provide information on acute CV costs for use in US-based economic evaluations, and is therefore of most use to a US audience. Comparison of costs with a non-CV group (as stated by the other reviewer) is of less interest or use and I am not clear about the justification they have given for this objective therefore this could be made clearer.

  *In order to address these points, additional text has been added to the Background section to emphasize that the main objectives of this study were to assess the incremental cost of CV events over average health care costs and to examine cost differences between initial and subsequent CV events.*

Reviewer Comments:

Reviewer #2:

**Major Compulsory Revisions**

- 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).

  *The second column in Table 2 (All Matched Patients) has been deleted*

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

  *N values have been included into Table as requested. The n value in the title has been removed.*

**Minor Essential Revisions**

- 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.

  *The horizontal labels in Figure 2 have been re-labeled as suggested.*

- 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?).

  *We did use a main-effects-only model, with no assessment of interaction effects and have added text in the Methods and Results sections to reflect this.*

**Discretionary Revisions**

- 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).

**Assessment of unadjusted mean costs was not one of the objectives of this analysis and so we do not currently have these results**

- 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.

**Again, we did not run results for full-record cases only, and are therefore not currently in the position to include these data.**

- 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?

**We did have a few cases with costs over $250,000, with the highest being $544,498. Because: (1) there was more than one “high-cost” case (i.e., no obvious outlier threshold), (2) we had no way to determine why costs were so high for these patients, and (3) we wanted to examine total costs of CV events in general, no cases were excluded from the analysis.**