Reviewer’s report

Title: Productivity Loss and Indirect Costs Associated with Cardiovascular Events and Related Clinical Procedures

Version: 3 Date: 26 December 2014

Reviewer: Robert McQueen

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Song et al. quantify workplace absenteeism and short-term disability for US commercially insured and employed patients with and without cardiovascular diseases and related clinical disorders (CVERP). The authors find an acute increase in per patient per month hours and indirect costs one month post index date (first CVERP) and up to one year post-index date for those with CVERP compared to those without CVERP. Indirect costs decreased over longer follow-up periods.

No Major Compulsory Revisions requested

Minor Essential Revisions

The authors should clearly state perspective of the analysis. Since they use the human capital approach for estimating indirect costs, the perspective should be from the patient. That is, the authors are counting any hour not worked as an hour lost. Alternatively, they could have used a friction costing method and only counted the hours lost until another employee replaced the productivity. That would be a true employer perspective; therefore the costs associated with CVERP in this study would be overestimated. But the conclusion states, “...Prevention or reduction of CVERP could result in WA and STD-related cost savings for employers.” I imagine there would be some cost-savings for the employer, but the majority of those savings, from this analysis perspective, should be specific to patients with some impact on employers. Consider adding this to the limitation section and please clearly label the perspective.

Discretionary revisions

I would suggest dropping the 2nd and 3rd year analyses for multiple reasons: (1) An employer would (and did) replace the productivity of these workers sooner rather than later: “Thus, of patients included in the first month analyses, only 31%, 19%, and 19% remained for the WA, STD, and combined WA and STD analyses at three years of follow-up.” Again – the friction cost method which is relevant in this case if the analysis is truly from the employer perspective. (2) While the authors did not directly compare 1 month post index date costs with 3 year follow-up costs, it is easy for a reader to compare these means and how they change over time. In doing so, the reader is not comparing apples to apples. The original cohort is missing nearly 80% of its patients. (3) There is a lot of information in these tables. If the authors add the 2 and 3 year costs to the
appendix materials, they could simply mention that indirect costs decreased over time in the text. This would reduce some of the table information and even some text as well.

**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