Reviewer's report

Title: Thinking styles and doctors' knowledge and behaviours relating to acute coronary syndrome guidelines

Version: 2 **Date:** 26 January 2008

Reviewer: Martin Eccles

Reviewer's report:

Dear Dr Sladek,

I have reviewed your paper and the reviewers comments on your re-submission. Whilst I agree that the manuscript is considerably improved there are the following things that I still require you to deal with.

Major Compulsory Revisions

1] In relation to the absence of any estimation of power you wrote:

It is not uncommon for descriptive studies to be conducted in the absence of power calculations. As in the current study, large samples are often difficult to recruit. Further, the lack of a power calculation would be more relevant had we reported no significant associations. By definition, we had enough power to detect the associations we have presented. An alternative interpretation is that if the study is underpowered, our results represent a conservative test of the hypotheses.

Whilst this may be true that descriptive studies often do not include power calculation this does not mean that this is correct. Nor does the fact that you have reported some statistically significant correlations mean that you study was adequately powered â## it just means that you may have missed smaller effects than those you saw. Given that you cannot do this a priori I want you to discuss this in the discussion and say something about the adequacy or not of the power of your study.

2] Both reviewers commented on your correlational analyses â## in relation to correction for multiple comparisons and in relation to over-enthusiasm in the face of statistical significance but weak correlation. Your responses say -

Multiple comparisons

There are at least two schools of thought regarding correction for multiple comparisons. The strictest strategy is to literally adjust alpha based on the number of comparisons made (and accept or reject results accordingly). Often this results in little more than a shift in alpha to the commonly reported .01 or .001 levels. The alternative (as we have done) is to report exact probabilities for all comparisons and allow the reader to evaluate the import of the findings.

One weakness is the very modest correlations

Indeed, the correlations on which we base our conclusions are generally in the

range of Â± .20 to .29. However, there was consistency across all scales, and given the lack of research in this area we maintain that these are important, encouraging findings. Further, the modest effect sizes that these correlations represent were acknowledged as a potential shortcoming in the Discussion of the original manuscript. This text remains.

Whilst I am happy with your response on multiple comparisons I think that you need to be more cautious about your results. For example, I do not think that your results offer a basis for intervention building or even speculating about intervention building. They are an interesting set of data from a small and selected group of clinicians that needs to be replicated in a larger, properly constituted sample before being taken further. You should adjust the manuscript throughout in line with the reviewers request for caution both in your interpretation and your suggested implications.

3] I cannot find in the text a reference to Table 5 nor an explanation of what it contains. Though I managed to build this, I should not have to and you should adjust the text of the results accordingly.

4] Under acknowledgements you write:

This study was supported by an unconditional research grant from Sanofi-Aventis Australia Pty Ltd. The funding agreement ensured the authorsâ## independence in designing the study, interpreting the data, writing, and publishing the report.

I think that this is better reported under Conflicts of interest.

Minor Essential Revisions

The currently configured Appendix A should be configured and referred to as a separate Additional File as in the instructions to authors.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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.