Author’s response to reviews

Title: Effectiveness of inpatient and outpatient strategies in increasing referral and utilization of cardiac rehabilitation: a prospective, multi-site study

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Author’s response to reviews: see over
October 10, 2012

RE: MS# 7214637747432834 - Effectiveness of inpatient and outpatient strategies in increasing referral and utilization of cardiac rehabilitation: a prospective, multi-site study

Dear Dr. Straus:

Thank you kindly for the invitation to revise and resubmit our above named paper. Please find below a point-by-point response to Editorial and reviewer comments. These changes are demarcated within the text of the manuscript through the ‘tracked changes’ feature.

Editor

1. PROVIDE ADDITIONAL DETAIL ON THE INTERVENTIONS TO ALLOW THE READER TO UNDERSTAND THEIR COMPONENTS

Response: More detail regarding the interventions, specific to the second comment of reviewer RC, is provided on pages 5 and 6.

2. PLEASE PLACE THIS STUDY IN CONTEXT WITH A BROADER LITERATURE AND OUTLINE WHY THIS STUDY IS IMPORTANT

Response: The two recent AHA Advisories on CR have now been outlined in the first paragraph of the discussion, to demonstrate the importance of this study.

Reviewer AC

Major Revisions

1. Definition of cardiac rehabilitation

Response: The authors have now included a definition of CR in the first paragraph of the paper. The definition clarifies that CR does include a core component of exercise, but also secondary prevention more broadly. In addition, we have clarified that the CR setting in this context indeed includes both supervised and home-based programs.

2. Self-citation

Response: Guilty as charged! My apologies and several of these citations have been removed from the manuscript

3. Lack of up to date literature and policy on CR referral

Response: The Neubeck, and 2 recent AHA advisories on CR have been added to the references (Balady and Arena, Circulation). We did not cite the Beswick references suggested, as the more
recent Davies et al. Cochrane review provides a more current synopsis of that literature (see reference #15).

4. Results – effect sizes
Response: The odds ratios, which demonstrate the size of effect, are shown in the last Table and reported in the last paragraph of the results section. The magnitude of effect figures prominently in the discussion section as well.

Minor Revisions

5. Methods: Sites
Response: On page 6/7 it has now been outlined that the 61 programs to which patients were referred varied in terms of setting (i.e., community, academic) and offered both supervised and home-based models.

Moreover, perhaps it was a typo in your comments, however my sense is there are over 150 programs in Canada (not 750). Unfortunately I am not aware of any studies that have directly compared CR program characteristics in Ontario to other provinces. We have unpublished data on this demonstrating some differences. However, as this study is specific to the nature of referral strategies, it would be more a question of whether these strategies are generalizable in other jurisdictions, rather than the nature of the CR programs. Moreover, the question of generalizability is raised in the discussion section as a limitation. Finally, as stated in the conclusions, these 2 strategies are “readily-implementable” and transferable to other jurisdictions.

Reviewer CR

1. Abstract – there is a mixture of methods and results under the “background” heading (e.g. “1809 participants completed the mailed survey” is a result). It would be clearer to the reader to delineate methods and results into appropriate sections.
Response: The methods and results sections of the abstract have been revised accordingly so that the text related to sample size appears in the results subsection.

2. Description of the interventions
Response: On pages 5 and 6, we have added details regarding the CR strategies to respond directly to your queries. For example, we have stated that verbal patient consent would be secured. Please bear in mind however, that we are unable to provide too much detail as there
is inherently some slight variation by site (i.e., can only report commonalities, which are likely in turn generalizable to other sites).

3. Analysis – Description of the data is slightly confusing.

Response: A Venn diagram has been added as Figure 1 as suggested. In this process we identified an error in the text (thanks). Moreover, the text has been revised to simply refer the reader to the Figure as suggested.

4. If 3. above is completed, then the actual quasi-experiment has a control group versus a variety of intervention groups. That in essence is the study you are proposing with the GEE model. In such a study it would be better to illustrate the baseline characteristics of the control patients (no interventions) versus the groups being compared (pre-approved, pre-booked, ED) rather than the current construction of Tables I and II.

Response: While we understand the logic, in fact the way we have constructed the tables the characteristics exposed to each intervention (‘yes’ column) versus not exposed to each intervention (‘no’ column) is shown. We have added to the text on page 6 an analysis of sex and age differences in participants exposed to any versus no CR utilization strategy.

5. “contamination” versus interaction between interventions

Response: Thank you for identifying for us that the term “contamination” in the strict sense is not the correct terminology in most instances. We have replaced this term with “interaction between the interventions” as per your suggestion.

Thank you in advance for considering our revised version of the manuscript. I hope you will find the revised manuscript worthy of publication in your journal.

Sincerely,

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