Author's response to reviews

Title: Decision-making in percutaneous coronary intervention: a survey

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Version: 2 Date: 15 May 2008

Author's response to reviews: see over
Dear Editor:

Thank you for giving us the opportunity to revise and re-submit to *Biomed Central Medical Informatics and Decision-Making*. We have carefully reviewed each of your reviewers comments and made changes to the manuscript accordingly. We believe the result is a much-improved report. Below, we outline point-by-point each suggestion of the reviewers (in italics) and which corresponding changes to the manuscript we made to address it.

**Reviewer 1**

1. *The full text of the survey should be made available as an appendix.*

   We have included the actual one-page survey as an Appendix to the manuscript. In the methods section, we refer the reader to the Appendix and have deleted a portion of the methods section which attempted to describe the survey.

2. *The biggest vulnerability in the manuscript is the authors’ strategy of ‘deducing satisfaction.’ Isn’t it much simpler and more valid to simply state that they are examining concordance between ideal and actual processes of decision-making in the cath lab? It is a stretch to infer satisfaction from this, and I believe that it actually doesn’t take anything away from the conclusions of the article.*

   Starting with the abstract, we have changed the wording of the text to express that we examine concordance between responses to questions 4 and 5 on the survey, as opposed to deduced satisfaction. These changes are in the conclusion of the abstract, in the methods section, in the results section, and in the discussion section.

3. *In the conclusions, the authors present a theory as to why there is such ‘dissatisfaction’ among non-cardiologists, and this theory may in fact be true. However, they should also consider other possible explanations. For example, it may be that the lesion is in the noncardiologists’ perception of the process, not the actual process. Most cath referrals come through a consulting cardiologist, and most cardiologists feel involved in decision making. Accordingly, isn’t it possible that the problem is that non-cardiologists may not know that this interaction is in fact taking place. This wouldn’t appease the minority of noncardiologists who want to be directly involved, but it would likely satisfy the majority who simply wanted more than one physician involved.*

   To address this suggestion, we added a separate paragraph (the 4th) in the Discussion section detailing how non-cardiologists’ perception of what process is occurring may not reflect what is actually taking place, in that in many cases a non-interventional cardiologist is involved and collaborating with the interventionalist regarding PCI decisions without the referring non-cardiologist’s awareness.

4. *In the abstract, the authors introduce the concept of satisfaction in the conclusion without mentioning this metric in the methods or results, and without disclosing that this was derived indirectly.*
As in the rest of the text, we re-worded the conclusion of the abstract to reflect that we are examining concordance between perceived processes of decision-making and opinions regarding the ideal process for decision-making, not “satisfaction” of physicians referring to the cath lab.

5. Among non-cardiologists, was their a correlation between the volume of cases referred and their ‘satisfaction’ with the process.

We added a sentence in the last paragraph of the Methods detailing how we determined whether the number of referred cases differed between surveys with concordant responses and surveys without concordant responses. We added a sentence in the second paragraph of the Results stating that there was no significant difference in the number of cases referred between responders who had concordant responses to questions 4 and 5, and responders who had discordant responses to questions 4 and 5.

Reviewer 2

1. …non-interventional cardiologists felt involved in the decision-making process. This could be due to a variety of reasons, one of them being the physical proximity of interventional and non-interventional cardiologists when an angiogram is performed, and a decision is being made.

This is an important potential reason for why non-interventional cardiologists perceived that they were involved in PCI decision-making. Thus, we have added a sentence in the 3rd paragraph of the Discussion which discusses this as a potential reason why cardiologists perceived their high level of involvement during PCI decisions.

2. This study only addresses the perceptions of referring physicians The authors do not offer any suggestions on how this can be addressed, or whether it needs to be addressed.

The reviewer has expressed an important point: this limited survey study aimed only to elicit perceptions of referring physicians, not to determine objectively what the actual decision-making processes are and which members of the medical team are or are not involved in that process. We do think this would be an important area of a future study, however this research question was beyond the scope of this project. We incorporated a sentence at the end of the second paragraph of the Discussion reflecting this as a limitation of our study, and proposing this as a possible area of future research.

3. Would it be reasonable to expect the interventionalist cardiologist to actually discuss a case with the referring physician when an angiogram has just been performed, and PCI is a likely option. The referring physician might be at another location, might be busy with other commitments, or simply because of the nature of their training and experience may not be in a position to contribute to the decision-making process. Maybe it is a matter of courtesy that the interventionalist cardiologist should give information about the angiogram and revascularization decision in a timely manner to the referring physician.

The reviewer has raised a concern about the logistics of organizing collaboration around PCI decisions, given time and location issues. We agree that it does not seem feasible to interrupt the angiogram so that the interventionalist can “track down” a referring physician to discuss possible PCI. However, their responses to questions 4 and 5 seem to indicate that in spite of logistics, referring non-cardiologists feel that more than one proceduralist operating alone should make decisions regarding PCI. One potential solution might be for a pre-angiogram telephone discussion between the interventionalist and referring physician. If the referring physician is a non-cardiologist, they should be explicitly given the option of involving a second, non-interventional specialist to collaborate with the interventionalist in making PCI decisions. We added a paragraph to the Discussion (paragraph 5) to elaborate on this potential solution to the feasibility difficulties that are inherent in involving more than one physician in the decision-making process.
4. What would have been very advantageous if questionnaire included an item on whether the referring physician felt happy about PCI being the correct option.

A direct question eliciting responder’s opinion about PCI as an option for management of lesions found on angiography would have made for clearer examination of referring physicians’ opinions regarding PCI decisions; this is a limitation of this survey study. We added a sentence to the 2nd paragraph of the Discussion, explicitly mentioning the omission of such a question as a limitation of the study.

5. The details given in the methods section are not very detailed. It would be better to include the complete questionnaire at the end of the paper as an Appendix.

We agree. We deleted the portion of the Methods section which detailed the survey, and instead have included and reference the survey itself in an Appendix.

6. References 1 to 3 are quite dated. The paper would be improved by adding the following reference as well “Variations in clinical decision making process between cardiologists and cardiac surgeons: a case for management by multidisciplinary teams? MA Denvir, et al (Journal of Cardiothoracic Surgery 2006, 1:2).

We have deleted one dated reference from the reference list and added the reference to which the reviewer has referred above.

Thank you again for the thoughtful comments of your reviewers. We would be happy to consider any further changes to improve the manuscript that you wish.

Sincerely,

Catherine Rahilly-Tierney, MD, MPH