Reviewer's report

Title: Impact of on-site cardiac catheterization on resource utilization and fatal and non-fatal outcomes after acute myocardial infarction

Version: Date: 5 September 2006

Reviewer: William B Hillegass

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General
I have looked at it and the authors' responses to my questions. They did not address my fundamental criticism that the rate of invasive/interventional procedure use and its timing (which is unknown from their data) were so low and perhaps late even at facilities with on-site catheterization labs/PCI that to make any statement about outcomes comparing these onsite facilities to "a more selective use of invasive procedures" rather than "routine" use is unjustified. The institutions in their cohort did not employ "routine" use of early invasive procedures. Therefore, for this manuscript to draw any conclusions about the utility of a routine invasive vs. more conservative approach to ACS is not valid. If they want to conclude that infrequent use of an early invasive approach to ACS is no better than an even more infrequent use of an early invasive approach, I believe their data does support this conclusion.

I actually found the authors' responses to my criticisms rather condescending (particularly their lecture about RCTs versus "real world" and population data) and really undercuts my motivation to invest any more time into a more formal rereview of the manuscript. In addition, perhaps my choice of the word "subtle" (which the authors ridicule) was not the best, but the majority of the real world burden of CAD is angina and heart failure symptoms that are managed in the outpatient setting. By subtle, I mean't that these are not captured in the endpoints of this analysis because they are not "hard" endpoints. I understand that this detail of information is virtually never going to be captured in administrative or large population databases, yet it is likely important in any complete comparison of treatment strategies for CAD. If this information is not available, I would advocate a more circumspect conclusion than declaring the outcome of two treatment strategies to be similar. They may be similar for some specific endpoints but overall equivalence for all important endpoints remains indeterminant. Furthermore, many of the effects of treatments applied based on the results of noninvasive testing (particularly to measure LV function) such as ACE-I,ARBs will not become manifest for several years so the influence on care and outcome is "too subtle" to be detected by the endpoints in this analysis. Based on these many limitations, I strongly believe the conclusions of the manuscript are still overreaching as to the lack of utility of invasive procedures and noninvasive tests.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)