Reviewer’s report

Title: Are in-hospital acute myocardial infarction case-fatality rates useful as a quality indicator? An evaluative study.

Version: 1 Date: 26 May 2010

Reviewer: Kuo-Piao Chung

Reviewer’s report:

It is an interesting article regarding AMI case-fatality rates. However, there are three major and three minor concerns as well as optional comments for the manuscript.

Major concerns

1. The title of the manuscript was not fitted well with four research aims and overall text. Do you intend to argue that in-hospital AMI-CFR is not a good quality indicator, but intermediate outcome of death within 28 days by empirical data instead? Is your focus on data quality for AMI-CFR hospital comparison? Please try to align your title, specific aims as well as overall text. For example, “Screening of hospital quality of care by using different data sources for AMI-CFR.”

2. The research questions are not well specified in background which could impact on the significance or contributions of this article. The gap of knowledge or research focus should be specified more concrete. If AMI-CFR was a well-established indicator, what else can be added for your study? It is not possible to support a quality indicator by data-driven only if data quality was still an issue. The evidence-based medicine and / or clinical practice guideline should be the rationales behind. Data can show the existence of variation which might be evident for improvement in the future.

3. On page 7, the second aim needs to be elaborated. Do you mean “its” by data (hospital discharge records) or by indicator (AMI-CFR)? The result of table (table 2) and explanations were not clear enough to provide evidence for assessing the completeness and accuracy of Belgian discharge records. There is no standard for comparison, no test statistics, nor did the data provide information directly. Those research aims need to be considered once again.

Minor concerns

1. Using CCI as a variable for risk adjustment was not good enough. It considers not severity of disease, but comorbidity instead. Please add or discuss it into the limitation part or provide discussion in manuscript.

2. Definition of AMI-CFR on Page 6, 2nd paragraph was inconsistent with page 9, 1st paragraph. Please modify your wording to avoid confusion.

3. Please provide note or change the table contents for “No transfer out” and “No transfer” into “Exclude transfer out”, “Exclude all transfers”. In addition, the
meaning of “departure” was not self-evident in table.

4. Please specify your definition of AMI-CFR with numerator (F1 or F1 + F2) and
denominator (F1 + F2 + NF1, F1+F2+NF1+NF2). Do you calculate more than
one kind of definition?

Discretionary comments

1. Indicator development from data-driven is possible, but not popular. Expert
consensus combine with evidence or guideline, such as Modified Delphi
Technique, is popularly adopted.

2. The reference in manuscript could be updated a little bit if possible. More
newly articles could add values to this manuscript.

**Level of interest:** An article whose findings are important to those with closely
related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.