Reviewer's report

**Title:** Does Interhospital Transfer Improve Outcome of Acute Myocardial Infarction? A Propensity Score Analysis from the Cooperative Cardiovascular Study

**Version:** 1  **Date:** 4 December 2007

**Reviewer:** Daniela Balzi

**Reviewer's report:**

**Major Compulsory Revisions**

**Methods.**

The classification of therapy reported in table 4 is not defined in the method section: there is only a reference (24) but it is not explained what is the difference among the five treatments reported.

The methods used for results reported in table 5 are not described: are crude measures or OR from multiple logistic regressions?

**Results.**

1) When we compare two relative risks we compare their confidence intervals: if they do not overlap, it is reasonable to conclude that the parameter value differs for the two populations. In this section the authors erroneously consider a different impact if the 95% confidence interval for the subgroup with a specific condition did not include the relative risk for the subgroup without that specific condition.

2) If table 5 reports crude measures (as I suppose), I suggest to perform a multiple logistic approach in order to adjust the mortality risks for the other patient characteristics and the severity of illness.

**Conclusions**

The authors' conclusions are justified by the results found in the study, except the conclusion that those who underwent transfer had generally higher quality of care. Is this conclusion based on odds ratios for different therapies presented in Table 4?

Table 5 should be shortened, it could report only the significant results derived from the multiple logistic regressions.

**Minor Essential Revisions**

Keywords: transfer is missing

**Results.**
Rural Hospital and mortality
- a duplication of data is found in the text (30-day crude mortality)
Characteristics associated with improved mortality among transferred patients
-There is a contradiction in the title which should be corrected.

Tables
A legend is needed to provide a clear explanation that allows the tables to be understood.

Discretionary Revisions
This is a large data-set, have the authors considered the opportunity to investigate the effect of transfer in patients firstly admitted to the rural hospitals?

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

Level of interest: An article of importance in its field

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