Reviewer's report

Title: Improved treatment and prognosis after acute myocardial infarction in Estonia: cross-sectional study from a high risk country

Version: 1  Date: 25 April 2015

Reviewer: Rita Pavasini

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Major Compulsory Revisions

1- It is reductive to search patients hospitalized with myocardial infarction just looking for two ICD codes, a more specific characterisation of the research is necessary.

2- Why to exclude patients hospitalized for 3 days and discharged alive. It could be possible that patients hospitalized for low risk NSTEMI, receive a PCI the first day of admission and subsequently go home the second day. So in the analysis also these patients have to be included. If there are other reason to exclude these patients better to explain reasons. The inclusion of these patients modifies final results?

3- The availability of hospitals in years could be better resumed in a table. Moreover it is necessary better describe the system of communication between centres, for example the classification of hub and spoke centres over years, whenever possible (above all better to explain the availability to perform PCI for patients primary hospitalized in secondary centres).

4- It is necessary to improve the description of the definition of AMI patients used to choose patients, according with Guidelines. It has to be better justifying the reasons for exclusion criteria of patients by expert (as described in figure 1).

5- Which are selection error by EHIF?

6- It is better to report also some data from the analysis in the text, at least for main results. Now the description of results is unclear.

7- Crude mortality rate have to be adjusted also for type of treatment received: medical therapy vs PCI vs CABG in years.

8- Also data on type of treatment for NSTEMI have to be included.

9- It is not clear which kind of data are not included in the analysis if the patients was referred from a secondary to a tertiary care hospital. It is not correct to consider data on patients admitted for STEMI in secondary care hospital as patients treated with conservative strategy just because the patients has been referred to the tertiary hospital before reperfusion! If it is in that way in the analysis, this is not correct. And anyway a more detailed description of the use of data from these patients is necessary.

Minor essential revisions
1- Line 31, page 2: not “from year”, but “in years”
2- It is necessary a language revision.

Level of interest: An article of limited interest

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests