Reviewer’s report

Title: Early inter-hospital transfer of patients with myocardial infarction without a doctor, paramedic or nurse on board: results from a French regional emergency care network

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Reviewer: Fernando Rosell-Ortiz

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Early inter-hospital transfer of patients with myocardial infarction without a doctor, paramedic or nurse on board: results from a French regional emergency care network.

Comments
The paper is interesting, especially due to the difficulties to find an adequate balance between needs and resources to delivery best treatment to all the population. Patients suffering ACS have very different risk profiles, so if we can identify patients without risk to be transferred in a MICU without doctor on board, these resources could attend other time-dependig processes (stroke, major trauma, cardiac arrest, heart failure, etc). But there are methodological issues to be considered before acceptance for publication.

Background
There is a confuse mix of patients, STEMI patients before and after PCI are completely different. NESTEMI patients have a broad spectrum of risk. Both categories must be commented by their own and explaining this concern. Indeed it is the strength of the article, what profile of patients could be the target of the protocol. I should suggest to describe how STEMI patients after PCI and low-moderate risk NESTEMI patients remains without a clear transfer protocol.
There different risk scores to define the profile of ACS patients. Perhaps we miss some comment about them.
As the paper evaluates a retrospective cohort of patients, I miss just before the aim of the study some explanation. "In our area patients with intermediate-risk ACS are transferred only with trained drivers equipped with an automatic external defibrillator, and without a medic or paramedic on board". Our aim is…clinical outcomes..

Methods
There is a major concern. Authors write "The aim of this study was to compare the rate of events associated with the SCA-Alp approach compared with the standard approach, which involves a MICU" but the study population only includes patients transferred with SCA-Alp protocol, so it is no possible such a comparison. (Fig 1)
We miss comments regarding risk scores for ACS patients. It is possible to use another criteria but at least one comment regarding why not to use them.

I do not understand very well the endpoints and their relationship with a transfer protocol. If the aim of
the study is to report clinical incidences due to a different transfer protocol, patients usually transported with physician on board now only with drivers, just clinical events on going are the real endpoint. All the other events can be related to an inadequate return decision (too early? instable patient?), but I do not think that in-hospital events after return were different from a MICU transport ones. From my point of view, in-hospital evolution is independent from transfer protocol except if there is any complication during the transfer (an acute event missed or untreated by drivers). If after arriving at hospital, patients were stable, posterior complications cannot be explained by the transfer protocol. I mean, the study describes (it is really a descriptive paper) clinical events of ACS patients at low-moderate risk in a program of early return with drivers and without monitoring, nurses and doctors. (Table 1). (I,e, stent thrombosis is independent of any kind of transport).

Methods must be reconsidered.

Results, discussion and conclusions

Due to a confuse aim and methods, results describes a pool of characteristics (very interesting, no doubt) that are not addressed with the aim, so the final conclusion is really a pool of conclusions. Probably, the strength of the study is that an adequate risk stratification may considerer to transfer an ACS patient without physician on board.

Authors must choose: early transfer is safe (in general, including all the patients (MICU and ACS-Alp) and their clinical risk conditions, a lot of work) or no problems with return according SCA-Alp protocol (define methods and results according to this purpose).

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
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No

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Not relevant to this manuscript
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