Reviewer’s report

Title: Trends in treatment delays for patients with acute ST-elevation myocardial infarction treated with primary percutaneous coronary intervention

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Reviewer: Enrico Ammirati

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The Authors present two series of STEMI patients (N=500 pts) treated with PCI in two different time-frames (2007-2008 vs. 2011-2012) comparing times of delay. The analyzed system delay in the 2 series, and its components (delay of the emergency medical system and door to balloon time). They also compared these time in the off-hours.

As major finding they describe that substantially no changes happened in the total system delays in the years, although there are differences in its components.

The manuscript is well written. The hospital receive all the STEMI of the local area of Helsinki, so although the sample size is limited, the study is accurate and reflects the real changes of the area.

1. Among MACE, do the Authors include all new target vessel revascularization or just unplanned vessel revascularization?

2. Is there ECG transmission from the ambulance to the coronary care unit in both time periods? In any case can the Authors comment this point?

3. How many interventional cardiologists work in the hospital in the 2 time periods? How far from the hospital do they live or did they live? As the increase in the door-to-balloon time in the second period is mainly due to the increase of the door to balloon time in the off-hours, I wonder whether this delay is associated with a cardiologist that lives far from the hospital, thus affecting the system delay of the hospital.

4. Does not Killip affect the 90-day outcome?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:
I have no potential conflicts to declare