Reviewer's report

Title: High prevalence of lack of knowledge of symptoms of acute myocardial infarction in Pakistan and its contribution to delayed presentation to the hospital

Version: 1 Date: 18 March 2007

Reviewer: Julie J Zerwic

Reviewer's report:

General
This was an interesting look at knowledge deficit of AMI and its contribution to delay in seeking treatment. The article was a cross sectional correlational study that attempted to determine which factors were related to delay. Delay in seeking treatment was defined as a delay greater than 6 hours from onset of symptoms to arrival at the hospital. There are published studies on patient delay in countries outside the U.S. and Europe but the number are limited. So the contribution of this manuscript is to help readers understand the important patient variables in Pakistan.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

It is limiting that the only symptoms included were chest pain, palpitation, fidgetiness, and shortness of breath. Why were these symptoms the only ones included? How was the decision made to limit to these four symptoms? One concern is the use of fidgetiness as a symptom. Typically, fidgetiness would not be considered one of the four main symptoms of myocardial infarction. I wonder if this is a translation issue or if fidgetiness is truly the correct word. Why were only those with chest pain included? A discussion of the instrument, its reliability and validity should be included in the manuscript.

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4 1 7 Citations 3,5,6 are not appropriate here because they focus on delay and not the benefits of early thrombolysis.
5 1 An article was published in the last year in Circulation (Moser was first author) that was a comprehensive review of the research on delay. This would be an appropriate article to cite in this section.
7 3 The discussion of independent variables is difficult to read. Perhaps a better way to organize the information would be to separate the variables into multiple sentences or give only the definitions absolutely necessary for the readers understanding.
7 2 How was it determined that knowing 1 out of the 4 symptoms was knowledgeable?
7 No information is provided about the measure used to collect the data. Was this a questionnaire that has established reliability and validity? Were the questions developed for this study? If so, how was validity established? How was delay captured? In other studies it has not been possible to identify symptom onset for all subjects because the patients (and family members) were not aware when symptoms started, therefore delay time could not be calculated. Sometimes it is possible to categorize subjects into the less than 2 hours and greater than 2 hours (for example) because an estimate of the time interval could be identified but the precise time could not. The strategies surrounding the calculation of delay must be provided to the reader.
Fidgetiness is not an acknowledged symptom of MI. It is not clear if this might be an issue of translation. In addition, palpitations is not one of the most frequently experienced symptoms of MI. In contrast, diaphoresis is a common symptom and appears to be one of the symptoms that propels patients to seek treatment, but this was not apparently examined in this study. The justification of the four symptoms chosen in this study must be provided.
9 2 Why was 6 hours chosen as the time interval for a delayed presentation? Most studies use an earlier time interval (1 or 2 hours) based on the benefit of early reperfusion.
10 1 Delete reference to findings that are not significant. Also the OR of 1.7 appears in the table to correspond to a different CI.
10 2 Delete this paragraph if the interval chosen is 6 hours. Or change the interval to 2 hours but do not include both.
11 1 6 Delete discussion of finding that was not significant. If the authors feel this is very important then it could be included in directions for future studies. This section should be devoted to the main findings of the study.
Data discussed in the manuscript should either be included in the results section or not included in the Discussion section.

Table 3 It is not clear how the percents are being presented. It seems like the percentages should sum across each cell. For example, illiterate smokers who delayed plus illiterate smokers who did not delay would equal 100%. However, the n=89 is listed as 36.5% and the larger n = 159 is only 33.4%.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

P p l

4 1-2 Limit the use of parenthetical additions, instead simply utilize the definition. Common use terms such as “door-to-needle” and “golden hour” are unnecessary in this manuscript.

6 1 7 Change “presences” to presence.

6 2 2 The authors discuss mentally life threatening conditions. It is not clear what this means.

7 2 3 Change “thrombolytics” to thrombolytic.

8 1 8 Remove the word “as” after considered.

9 1 The breakdown of all of the patients who entered the ER is unnecessary. Only provide the patients that were considered for inclusion.

9 2 1 No need to say that the response rate was 100%.

11 2 2 Need a % sign after 30.3

12 1 Data discussed in the manuscript should either be included in the results section or not included in the Discussion section.

13 1 1 The first sentence is difficult to read. Perhaps rewording would be helpful to enhance understanding and ease of reading.

14 2 12 Remove the word “maybe”

Figure 1 Delete. It is only necessary to describe subjects who were eligible to participate and this can be done in text.

Table 1 Were all variables obtained from patient interview or were some of these variables identified from the medical record?

Figure 2 Where was this data presented in the Results section? This figure is not that helpful and could be eliminated.

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Discretionary Revisions (which the author can choose to ignore)

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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 limited interest

Quality of written English: Needs some language corrections before being published

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.