CONGRUENCE OF TIME FROM SYMPTOM ONSET ACCORDING TO MEDICAL RECORD VERSUS SUBJECT INTERVIEW IN PATIENTS DIAGNOSED WITH ACUTE CORONARY SYNDROME

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Background: The time from symptom onset (TFSO) is frequently used to calculate symptom-to-door time for studies investigating prehospital delay in patients with acute coronary syndrome (ACS). However, past research has shown discrepancies between patients’ recall of the TFSO assessed by subject interview as compared to documentation in the medical record (MR).

Purpose: Differences in congruence of TFSO between the MR and subject interview were assessed based on gender, age group, and by recall period according to the date of the interview in patients admitted to the emergency department (ED) for symptoms suggestive of ACS.

Methods: A secondary analysis was conducted from the PROMOTION (Patient Response to Myocardial Infarction Following a Teaching Intervention Offered by Nurses) trial, a randomized clinical trial to reduce patient prehospital delay to treatment in ACS.

Results: Of the 3,522 subjects with CAD enrolled into the trial, 3,087 subjects completed 2-year follow-up. Of these, 331 subjects sought treatment in the ED for ACS symptoms during the follow-up period. Among those, 276 patients (83%) had complete TFSO from both MR and subject interview. The median difference between the two data sources for the TFSO was 60.0 min. The median number of days between interview and date of symptom onset was 33.0 days. When examining the 276 ACS patients with both times documented, there were no significant differences in TFSO by gender (p = 0.484) or by age group (p = 0.363). There was a significant correlation between differences in TFSO and recall (rank r = 0.176, p = 0.004). In multivariable modeling, gender, age group, and length of recall period were not significantly associated with median differences in TFSO after adjusting for group assignment and site, except for with length of recall period (p = 0.035). Here, longer lengths of recall period were significantly associated with greater median differences in TFSO between MR and interview, adjusting the other model covariates (b = 21.9, 95% CI = [1.5, 42.2]).

Conclusion: These results suggest that TFSO obtained from MR is not interchangeable with data obtained from subject interview, especially if the interview is not conducted near the time of the index event.