

Study Abstract

1. BASIC INFORMATION		
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2. TYPE OF REQUEST (Please select one)		
<input checked="" type="checkbox"/> New Study Proposal (initial)	<input type="checkbox"/> Secondary Analyses	<input type="checkbox"/> Explanatory Analyses
3. STUDY TITLE		
EMS Response time in resuscitation of OHCA: The sooner, the better? Re-exploration of EMS response time to the survival of OHCA in Asia.		
4. RESEARCH QUESTIONS TO GUIDE LITERATURE REVIEW SEARCH		
<ul style="list-style-type: none"> ▪ Is response time related to the outcomes of OHCA (e.g. survival)? ▪ How can “response time” be defined and which definition is most applicable to the EMS setting? ▪ Is there a difference between the correlation between response time and outcomes of OHCA in Asian countries vs North America? 		
5. ABSTRACT OF STUDY PROPOSAL		
In no more than 350 words, describe the study under the given headings below.		
<p>Objectives/Hypotheses</p> <ul style="list-style-type: none"> ➤ Although it is a general agreement that the response time (i.e. from call receiving to arrival at scene) is associated with survival of OHCA, explained by worldwide EMS operators into a goal of an 8-min response time or less, currently medical research does not actually provide adequate evidences on this dogma. In the other hand, some research did show the controversial result (Pons PT, <i>Acad Emerg Med</i>,2005). ➤ Shortening of response time has been addressed by international guidelines of CPR/ECC and has become a sine qua non of systemic optimization of EMS planning worldwide. However, achieving response time goal within 8-mins or even shorter requires substantial efforts and abundant financial support. ➤ The objective of this study was to exam the correlation of EMS response time and the survival of OHCA in Asian cities, and try to determinate an appropriate cut-point of “best response time” (if existed) in Asian countries. ➤ Our hypotheses: The EMS response time in Asian cities positively correlates to the survival of OHCA, but the benefits of a response time reduction becomes inefficiently if shorter than a threshold, defined as “the best response time”. 		
<p>Methodology (To include sample size, settings, inclusion & exclusion criteria, etc. For secondary & explanatory analyses: include statistical plan, type of analyses, measurement, etc.)</p> <ul style="list-style-type: none"> ➤ Setting: the secondary analysis of PAORS databank ➤ Inclusion: adult non-traumatic OHCA ➤ Exclusion: OHCA caused by definite asphyxia, including submission, foreign-body airway obstruction, and anaphylaxis. ➤ Exposure measurement: response time in calls for OHCA, level of EMT, bystander CPR, initial arrest rhythm, transport time. ➤ Outcome measurement: ROSC rate, survival to admission, survival to discharge, CPC at discharge. ➤ Statistic plan: (1) Correlation analysis (2) Multivariate logistic regression 		

Significance of the study (e.g. provide brief description on how the study can improve current systems, its benefit to patients and how it can be implemented)

- Provide the evidence of benefit of shortening response time for Asian EMS in resuscitation of OHCA's.
- Provide suggestion to international CPR/ECC guidelines on the goal of the best response time by Asian data.
- Being a basis of cost-benefit analysis of systemic optimization of EMS by shortening response time.