



Improving Outcomes from Pre-hospital and Emergency Care across the Asia-Pacific

STUDY PROPOSAL REQUEST FORM

Please complete the form and email to PAROS secretariat at paros.secretariat@yahoo.com by the stipulated date. You will be notified in due time on whether your study has been accepted for presentation.

1. BASIC INFORMATION

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2. TYPE OF REQUEST (Please select one)

<input type="checkbox"/> New Study Proposal (initial)	<input checked="" type="checkbox"/> Secondary Analyses	<input type="checkbox"/> Explanatory Analyses
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3. STUDY TITLE

Resuscitation time interval at the scene and outcomes after out-of-hospital cardiac arrest in PAROS communities

4. ABSTRACT OF STUDY PROPOSAL

In **no more than 350 words**, describe the study under the given headings below.

Objectives/Hypotheses

We hypothesized that the scene time interval (STI) staying at the scene to provide cardiopulmonary resuscitation (CPR) is a key determinant for outcomes in out-of-hospital cardiac arrest (OHCA) in emergency medical service (EMS) systems because it is a very important treatment time interval after cardiac arrests. During this period, EMS personnel would provide various treatments at the scene including CPR, defibrillation, airway management, and fluid resuscitation. The longer STI for CPR has a benefit of providing a likelihood of more stable and higher-quality CPR, while the shorter STI has a benefit of faster, more comprehensive and earlier advance care in ED. In contrast, there would be a disadvantage of delayed advance care by emergency department (ED) in the longer STI protocol, but more unstable CPR during ambulance transport in the shorter STI system. By comparing the outcomes according to STI for CPR, we can develop a more effective scene protocol for the EMS system. This study aims to determine the association between STI and neurological outcome after OHCA using two large population-based cohorts covering two metropolitan cities in Asia.

Methodology

This is a population-based, multinational, and observational study. Target population is witnessed adult (≥ 19) and EMS-treated OHCA with presumed cardiac etiology in PAROS data. EMS witnessed will be excluded. The STI is defined as time from arrival at patient side to departure to hospital. STI group will be categorized on the basis of sensitivity analysis; for example, short (less than 8 minutes), intermediate (8 to less than 16 minute), and long (16 min or longer) STI. Primary outcome is good neurological outcome (cerebral performance category 1 or 2) and secondary is survival to discharge. Adjusted odds ratios (AORs) with 95% confidence intervals (CIs) using multi-level logistic regression model were calculated to determine the association between STIs and outcomes adjusting for potential risk factors (age, gender, place, bystander CPR, prehospital defibrillation, primary ECG, response time, transport time, airway management, post-resuscitation care, and co-morbidity) and interaction products.

Secretariat

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City level will be adjusted as a second level.

Significance of the study

EMS protocol on the basis of evidence will be established for appropriate time interval at the scene to provider resuscitation procedures.

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