



Summary: PAROS Publications Updates



Association of the Emergency Medical Services-Related Time Interval with Survival Outcomes of Out-of-Hospital Cardiac Arrest Cases in Four Asian Metropolitan Cities Using the Scoop-and-Run Emergency Medical Services Model.

Kim TH, Lee K, Shin SD, Ro YS, Tanaka H, Yap S, Wong KD, Ng YY, Piyasuwanukul T, Leong B.

J Emerg Med. 2017 Nov;53(5):688-696.e1. doi: 10.1016/j.jemermed.2017.08.076.

Brief:

The aim of the study is to evaluate distribution and interactive association of Response Time Interval (RTI) and Scene Time Interval (STI) with survival outcomes of OHCA in four Asian metropolitan cities. An OHCA cohort from PAROS conducted between January 2009 and December 2011 was analyzed. Adult EMS-treated cardiac arrests with presumed cardiac origin were included. A multivariable logistic regression model with an interaction term was used to evaluate the effect of STI according to different RTI categories on survival outcomes. Risk-adjusted predicted rates of survival outcomes were calculated and compared with observed rate.

It was shown that prolonged STI in OHCA with a delayed response time had a negative association with survival outcomes in four Asian metropolitan cities using the scoop-and-run EMS model. Establishing an optimal STI based on the response time could be considered.

Effect of known history of heart disease on survival outcomes after out-of-hospital cardiac arrests.

Lee MH, Fook-Chong S, Wah W, Shin SD, Nishiuchi T, Ko PC, Naroo GY, Wong KD, Tiah L, Monsomboon A, Siddiqui FJ, Ong ME; PAROS Clinical Research Network.

Emerg Med Australas. 2018 Feb;30(1):67-76. doi: 10.1111/1742-6723.12809.
Epub 2017 May 31.

Brief:

An observational, retrospective study on the PAROS OHCA registry from seven Asian countries in 2009-2012 to investigate the effect of known heart disease on post-out-of-hospital cardiac arrest (OHCA) survival outcomes, and its association with factors influencing survival was carried out.

From this study it was shown that history of heart disease independently predicted poorer survival to discharge during out-of-hospital cardiac arrest. Bystander CPR and AED rates were not higher in patients with known heart disease compared to those without.

Modifiable Factors Associated With Survival After Out-of-Hospital Cardiac Arrest in the Pan-Asian Resuscitation Outcomes Study

Hideharu Tanaka, Marcus E. H. Ong, Fahad J. Siddiqui, Matthew H. M. Ma, Hiroshi Kaneko, Kyung Won Lee, Kentaro Kajino, Chih-Hao Lin, Han Nee Gan, Pairoj Khruengkarnchana, Omer Alsakaf, Nik H. Rahman, Nausheen E. Doctor, Pryseley Assam, Sang Do Shin, PAROS Clinical Research Network

Ann Emerg Med. 2018 May;71(5):608-617.e15. doi:
10.1016/j.annemergmed.2017.07.484. Epub 2017 Oct 3.

Brief:

A prospective, international, multicenter cohort study on the PAROS OHCA registry from seven Asian Pacific countries in 2009-2012 to identify modifiable factors associated with improved OHCA survival among communities in the PAROS Clinical Research Network was carried out.

In the PAROS cohort, bystander CPR, out-of-hospital defibrillation, and response time less than or equal to 8 minutes were positively associated with increased OHCA survival, whereas out-of-hospital advanced airway was associated with decreased out-of-hospital cardiac arrest survival. Developing EMS systems should focus on basic life support interventions in OHCA resuscitation.

Epidemiology and outcome of paediatric out-of-hospital cardiac arrests: A paediatric sub-study of the Pan-Asian resuscitation outcomes study (**PAROS**).

Tham LP, Wah W, Phillips R, Shahidah N, Ng YY, Shin SD, Nishiuchi T, Wong KD, Ko PC, Khunklai N, Naroo GY, Ong MEH.

Resuscitation. 2018 Apr;125:111-117. doi: 10.1016/j.resuscitation.2018.01.040. Epub 2018 Feb 5.

Brief:

An observational, retrospective study on the PAROS OHCA registry from seven Asian countries in 2009-2012 to describe the characteristics and outcomes, and to find factors associated with survival after paediatric OHCA was carried out.

All children less than 17 years of age with OHCA conveyed by EMS and non-EMS transports were included in the univariate and multivariate logistic regression analyses to assess the factors associated with survival-to-discharge outcomes.

The wide variation in the survival outcomes observed amongst the seven countries in the study may be due to the differences in the delivery of pre-hospital interventions and bystander CPR rates.