



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 [patricia.tay@scri.edu.sg](mailto:patricia.tay@scri.edu.sg) by the stipulated date. You will be notified in due time on whether your study has been accepted for presentation.

Reminder: Please check the list of existing proposals and publications from <https://www.scri.edu.sg/crn/pan-asian-resuscitation-outcomes-study-paros-clinical-research-network-crn/paros-publications/> to avoid duplications of proposals. Abstract and manuscript must be sent to PAROS chairs for approval before submission for presentation/publication.

### 1. BASIC INFORMATION

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Email: shir_lynn_lim@nuhs.edu.sg	Country: Singapore

### 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

Temporal trends of non-shockable out-of-hospital cardiac arrest in Asia

### 4. ABSTRACT OF STUDY PROPOSAL

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

#### Objectives/Hypotheses

Out-of-hospital cardiac arrest (OHCA) with an initial non-shockable rhythm portends worse outcomes, with little improvement over the years. Recent studies suggest an increasing proportion of non-shockable OHCA over the last decades. This study aims to evaluate the temporal trends of non-shockable OHCA in Asia, and compare its characteristics, interventions received and outcomes with shockable OHCA. We hypothesize that there is an increasing incidence of non-shockable OHCA in Asia, with differences in characteristics, interventions received and outcomes compared with shockable OHCA.

**Methodology** (To include sample size, settings, inclusion & exclusion criteria, etc. For secondary & explanatory analyses: include statistical plan, type of analyses, measurement, etc.)

Baseline characteristics of the 2 groups (shockable and non-shockable OHCA) will be explored using chi-square test or Fisher's exact test for categorical variables, and Wilcoxon rank sum test for non-parametric and t-test for parametric variables.

Crude and age-standardized OHCA (overall, non-shockable and shockable) incidence and survival rates (per 100,000 persons) will be calculated for each year, with direct standardization for age using WHO population.

Generalized linear model (GLM) are considered for multivariate analysis. Poisson and negative Binomial models within the family of GLM could be applied for analyzing survival rates had improved over time and which factors were associated with the survival trends. The rate ratios could be

#### Secretariat

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estimated while adjusting for age and gender, etc. The year of 2008 is used as the reference year, and the RR for subsequent calendar-years are used to obtain yearly risk-adjusted survival rates.

Statistical analyses will be performed using STATA version 16. A p-value <0.05 will be considered statistically significant.

### Significance of the study

Non-shockable OHCA forms the majority of OHCA in Asia, and this proportion is likely to increase given the ageing population. Much of the improvement in OHCA outcomes worldwide is observed in those with shockable rhythms. There is a need to better understand the burden of non-shockable OHCA in Asia and factors associated with its outcomes. This will enable us to design interventions which may improve outcomes, and influence protocols and health policies in the long run.

#### For Official Use (Assessor only)

##### (A) Score (please highlight the appropriate score):

1      2      3      4      5      6      7      8      9      10

Unfavourable

Favourable

##### (B) Comments (free text):

## GUIDELINES FOR PREPARING NEW PROPOSAL PRESENTATION

If your study proposal has been accepted for presentation, you will be notified by the Secretariat. Please prepare your presentation slides in accordance to the following instructions. Each presenter is given 10 minutes to present (8min presentation + 2min Q&A).

### General Instructions

1. Presentation must include the following sections:
  - a. Introduction
  - b. Objectives/Hypotheses
  - c. Methodology
  - d. Significance
  
2. Limit total number of slides to not more than 12. The following are the recommended number of slides for each section.

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- a. Introduction – maximum of 2 slides
  - b. Objectives/Hypotheses – maximum of 2 slides
  - c. Methodology – maximum of 6 slides
  - d. Significance – maximum of 2 slides
3. Try to use big fonts and contrasting colours to increase readability e.g.
- a. Black/dark blue font against white background
  - b. White/yellow font against black background
  - c. Black font against blue background

For any enquiries, please contact PAROS secretariat at [patricia.tay@scri.edu.sg](mailto:patricia.tay@scri.edu.sg)

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