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	
Name: Liu Nan	**Designation:** Senior Research Scientist, SGH
Email: liu.nan@sgh.com.sg	**Country:** Singapore

2. TYPE OF REQUEST (Please select one)		
☐ New Study Proposal (initial)	☒ Secondary Analyses	☐ Explanatory Analyses

3. STUDY TITLE

Outcome Prediction for OHCA Patients Using Statistical Computation Approaches

4. ABSTRACT OF STUDY PROPOSAL

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

We aim to develop and validate a statistical scoring method to predict outcomes (e.g. ROSC and survival) for OHCA patients in Pan-Asian population.

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

We will use the PAROS dataset for scoring model derivation and validation. The following independent variables may be included in this secondary analysis: Age, gender, location type, EMS arrival time, arrest witnessed, bystander CPR, first arrest rhythm, and cause of arrest, etc.

We will partition the whole dataset into a model derivation set and a model validation set. Two types of statistical methods will be applied, namely conventional multivariate logistic regression method and modern statistical learning-based artificial intelligence approaches. We will compare these two modeling approaches in terms of performance on predicting outcomes for OHCA patients. We will also look into factors affecting performance variations among different countries.

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)

Survival is the most consistently captured outcome across countries, while ROSC represents the earliest endpoint reflecting the 'unbiased' initial resuscitation success. An accurate prediction score on these outcomes may serve as an instrument when comparing different EMS systems, which is useful within the framework of PAROS study where EMS systems vary from one country to another. Comparative analyses with the score may help discover the impacts of different resuscitation strategies and post-resuscitation interventions, which will eventually improve the outcomes of OHCA patients.

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.
      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 paros.secretariat@yahoo.com