



New Study Proposal

New Study Proposal 1



Proposer	Title	Objectives/Hypothesis
Dr Andrew Ho (Singapore)	Environmental exposure as a risk factor for out-of-hospital cardiac arrest	<p>People worldwide are exposed to seasonal high levels of air pollution from forest fires, which is a modifiable risk factor, making it a formidable public health concern. Pilot studies in Singapore showed that each 100 unit increment in Pollutant Standards Index on the same day and one to five days prior was significantly associated with increased risk of OHCA by 30-56%. Findings from this proposed study:</p> <ul style="list-style-type: none">• provide evidence on the general and specific health hazards of exposure to air pollutants,• compel national efforts and intensified international cooperation to develop programs to tackle the haze problem.• formulate health policy to mitigate health effects from exposure to air pollution at various levels.

New Study Proposal 2



Proposer	Title	Objectives/Hypothesis
Dr Micheal Chia (Singapore)	Utstein Factors and Outcomes in Traumatic Out-of-Hospital Cardiac Arrests	<p>Traumatic OHCA has very poor survival rates and little is known of characteristics that are associated with patient outcomes. This contrast sharply with non-traumatic OHCA where utstein prognostic factors are well established, e.g. witnessed arrest, bystander CPR and initial shockable rhythm.</p> <p>The objective of this study is to investigate the relevance of utstein factors that are associated with outcomes in patients suffering from traumatic OHCA, using multivariable logistic regression models, with a specific focus on utstein factors associated with achieving prehospital ROSC and survival to hospital discharge with good neurological outcomes.</p>

New Study Proposal 3



Proposer	Title	Objectives/Hypothesis
Dr Tham Lai Peng (Singapore)	Pre-hospital Advanced Airway and Survival Outcomes after Paediatric Hospital Out-of-Cardiac Arrests.	<p>The effect of advanced airway on survival outcomes after paediatric OHCA is unclear. This study will define the role of pre-hospital advanced airway more clearly between younger children and older adolescents.</p> <ul style="list-style-type: none">• To determine the effect of pre-hospital advanced airway on survival outcomes after paediatric OHCA• To determine the effect of advanced airway on survival outcome in children age below 13 years and age 13 years and above.• To compare the effect of supra-glottic airway versus endotracheal intubation on survival outcomes (if adequate sample size)

New Study Proposal 4



Proposer	Title	Objectives/Hypothesis
Dr Mazen (Lebanon)	Basic versus Advanced Life Support in Out-of-Hospital Cardiac Arrest: A Retrospective Study of the Pan-Asian Resuscitation Outcomes Study (PAROS) Registry Population	<p>The current literature has not come to consensus on the best prehospital life support modality for OHCA cases.</p> <p>The objective of this study is to determine whether advanced cardiac life support (ACLS) provided by emergency medical services (EMS) in cases of out-of-hospital cardiac arrest (OHCA) has any significant added benefit to patient outcomes in comparison with basic life support (BLS), in the specific settings of EMS systems in Pan-Asian countries, and thus to identify the most efficient resource utilization approaches for current and new EMS systems.</p>

New Study Proposal 5



Proposer	Title	Objectives/Hypothesis
Dr Hyun Wook Ryoo (Korea)	Association between Response Time Interval and Favorable Neurologic Outcome according to Bystander CPR : Pan Asian Resuscitation Outcome Study	<p>Successful resuscitation by response time interval (RTI) from collapse to EMS response will be different according to bystander CPR. This study aimed to determine the threshold of RTI for favorable neurologic outcome according to bystander CPR.</p> <p>We expect this study to be helpful for establishing the reasonable EMS ambulance allocation.</p>

New Study Proposal 6



Proposer	Title	Objectives/Hypothesis
Dr Jeogn Ho Park (Korea)	Interaction effect of bystander CPR on the association between time from call to first rhythm analysis and shockable presenting rhythm after out-of-hospital cardiac arrest	<p>Time from call to first rhythm analysis is associated with shockable presenting rhythm. Bystander CPR is known to increase time to potential defibrillation, and it could affect the effect of time from call to first rhythm analysis on shockable presenting rhythm. However, it is unknown at what degree of bystander CPR could affect the association between time from call to first rhythm analysis and shockable presenting rhythm.</p> <p>The aim of this proposed study is to investigate the effect of bystander CPR on the association between the time from call to first rhythm analysis by EMS and shockable rhythm presentation.</p>

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Proposer	Title	Objectives/Hypothesis
Dr Jung Eujene (Korea)	The effect of initial ECG rhythm on the association between bystander cardio-pulmonary resuscitation (CPR) and outcomes after out-of-hospital cardiac arrest (OHCA)	<p>The characteristic of patients who survive out-of-hospital cardiac arrest (OHCA) are unknown. Initial shockable rhythm and bystander CPR is known to be associated with improved survival outcomes. But, the interaction between initial ECG rhythm and bystander CPR on outcomes after OHCA is not well known. We hypothesize that the effect of bystander CPR is thought to be different according to initial ECG rhythm.</p> <p>The study results may provide a better understanding on how the effect of bystander CPR improves the prognosis of OHCA patients by initial ECG rhythm. It may also gives insight into whether the factors that determine the patients' survival outcomes differ according to the initial ECG rhythm.</p>

New Study Proposal 8



Proposer	Title	Objectives/Hypothesis
Dr Ki Ok Ahn (Korea)	Interaction effects of communities and advanced airway management on survival after out-of-hospital cardiac arrest; Multi-level analysis.	<p>The effects of prehospital advanced airway on outcomes of OHCA patients are controversial. This study aimed to evaluate the interaction effects of advanced airway management on survival after out-of-hospital cardiac arrest.</p> <p>At the end of the study, we hope to be able to provide a scientific evidence for the effect of prehospital advanced airway management on outcomes of OHCA patients and to demonstrate the interaction effect of community and prehospital advanced airway on outcome.</p>

New Study Proposal 9



Proposer	Title	Objectives/Hypothesis
Dr Won Chul Cha (Korea)	The difference of on-scene resuscitation according to initial rhythm in patient with out-of-hospital cardiac arrest	<p>The survival rate of out-of-hospital cardiac arrest (OHCA) due to the shockable rhythm is up to 10 times higher compared to the non-shockable rhythm. The etiology of shockable rhythm is different from non-shockable rhythm. However, the approach to cardiopulmonary resuscitation (CPR) does not differ for shockable and non-shockable rhythm currently even though their presumed differences in the etiology and pathophysiology of cardiac arrests.</p> <p>We hypothesize that the prompt defibrillation of the chain of survival would be greater in importance for the shockable rhythm than the non-shockable rhythm among patients with out of cardiac arrest considering their etiology.</p>

New Study Proposal 10



Proposer	Title	Objectives/Hypothesis
Dr Lee Sun Young (Korea)	Gender difference in out-of-hospital cardiac arrest survival by region in Asian countries	<p>The objectives of this proposed study are:</p> <ul style="list-style-type: none"><li data-bbox="942 468 1818 644">• To examine the effect of gender in out-of-hospital cardiac arrest survival according to different regions of Asian countries using data from the PAROS<li data-bbox="942 675 1818 851">• To explore the relative contributions of individual and country factors in explaining observed variation by gender among different countries

New Study Proposal 11



Proposer	Title	Objectives/Hypothesis
Dr Joyce Kong (Korea)	The influence of cancer on post-resuscitation treatments among OHCA patients	Aim: To examine the impact of cancer on outcomes after OHCA Inclusion: Adults (≥ 18 years), EMS-treated OHCA patients, presumed cardiac etiology, ROSC Exclusion: Unknown history of cancer, post-resuscitation treatments Exposure: Cancer status Outcomes: Post-resuscitation treatments including TTM, PCI, ECMO Statistical analysis: Multivariable logistic regression

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Proposer	Title	Objectives/Hypothesis
Dr Joyce Kong (Korea)	The effects of cancer on outcomes after OHCA	<p>Aim: To evaluate the influence of cancer status on post-resuscitation therapies among OHCA patients with ROSC</p> <p>Inclusion: Adults (≥ 18 years), EMS-treated OHCA patients, presumed cardiac etiology</p> <p>Exclusion: Unknown history of cancer, survival at discharge, and neurological outcomes</p> <p>Exposure: Cancer status</p> <p>Outcomes: Good neurological recovery; Survival at discharge</p> <p>Statistical analysis: Multivariable logistic regression</p>

New Study Proposal 13



Proposer	Title	Objectives/Hypothesis
Dr Lim Shir Lynn (Singapore)	The impact of early cardiac interventions on clinical outcomes in OHCA	<p>The objectives of this proposed study are:</p> <ol style="list-style-type: none"><li data-bbox="962 454 1798 586">1. To describe the current practice with regards to cardiac interventions following OHCA<li data-bbox="962 596 1798 729">2. To evaluate the impact of early cardiac interventions following OHCA on survival and neurological outcomes <p>Significance:</p> <ul style="list-style-type: none"><li data-bbox="938 839 1779 972">▶ Describe the prevalence of CAD in our OHCA population and the current variation in practice across the region<li data-bbox="938 1029 1812 1162">▶ Inform on the impact of cardiac interventions on clinical outcomes in OHCA as well as the optimal timing of interventions

New Study Proposal 14



Proposer	Title	Objectives/Hypothesis
Dr Lim Shir Lynn (Singapore)	Monitoring the brain following OHCA	<p>The objectives of this proposed study are:</p> <ol style="list-style-type: none"><li data-bbox="962 458 1792 594">1. To describe the current practice with regards to neurological monitoring in the ICU following OHCA<li data-bbox="962 601 1792 736">2. To correlate findings of neurological monitoring to clinical outcomes following OHCA <p>Significance:</p> <ul style="list-style-type: none"><li data-bbox="938 836 1750 972">▶ Improve our knowledge on cellular injury pathways in the post-resuscitation period and their impact on outcomes<li data-bbox="938 1029 1808 1165">▶ Form the basis of additional studies to evaluate its utility to guide treatment and for early neuroprognostication

New Study Proposal 15



Proposer	Title	Objectives/Hypothesis
Dr Sang Do Shin (Korea)	Prehospital Advanced Airway and Outcomes in Out-of-Hospital Cardiac Arrest: A Cluster Randomized Controlled Trial	<p>The objectives of this proposed study is to test effect of advanced airway techniques (V-ETI / S-ETI / SGA) on outcome of OHCA patients treated by EMS</p> <p>Inclusion criteria: EMS-assessed OHCA; Presumed cardiac etiology; Age \geq 15 years</p> <p>Exclusion: DNR or obvious sign of death; Arrest during hospital transport in ambulance; ROSC before EMS arrival to scene; ROSC during early resuscitation (< 3 cycles) by EMS CPR; Tracheostomy or anatomical modification; Airway deformity</p> <p>Primary outcome: Cerebral performance category (CPC) scale 1 or 2 upon hospital discharge</p> <p>Secondary outcome: Survival upon hospital discharge; Rate of successful airway placement</p>