



# PAROS BULLETIN

<http://www.scri.edu.sg/index.php/paros-clinical-research-network>

VOLUME 2

ISSUE 2

JUNE 2011

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**Trial Coordinating Centre:**



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## ANNOUNCEMENTS

~PAROS-related Events at ACEM in July 2011~

- **2 – 3 July 2011:** EMS Leaders and Medical Directors Workshop
- **4 July 2011 (10am to 11am):** PAROS Publications Committees Meeting
- **4 July 2011 (11am to 12pm):** Asian Emergency Medical Services (EMS) Council Meeting
- **4 July 2011 (1pm to 3pm):** PAROS EXCO Meeting
- **4 July 2011 (3.30pm to 5.30pm):** EMS Track 1 – Academic, Administration, Management, Research
- **5 July 2011 (10am to 11.30am):** EMS Track 2 – 4Ts in Clinical Emergency – Triage, Treatment, Transport & Transfer
- **5 July 2011 (12.30pm to 2pm):** EMS Track 3 – Diversity
- **6 July 2011 (12.30pm to 2pm):** EMS Track 4 – 4C – Command, Communication, Coordination, Control

For more details, please visit the ACEM website at <http://www.acem2011.org/>, or contact the PAROS Network Secretariat at [sweesung.soon@scri.edu.sg](mailto:sweesung.soon@scri.edu.sg).

## PAROS Literature Review Workshop (11 – 12 April 2011)



Top: A/Prof Marcus Ong giving the welcome address at the start of the workshop; Bottom: Dr Shin's EMS Systems Publications Committee during a breakout session

The verdant gardens of the Khoo Teck Puat Hospital (KTPH) embellished the usually severe environment of a hospital. Dubbed "a hospital in a garden", and vice versa, the tranquil environment offers a conducive place for intellectual debate and scientific musings. Planned and facilitated with expertise from the Epidemiology team from the Trial Coordinating Centre – Singapore Clinical Research Institute (SCRI), the two-day workshop offered a good mix of didactic lectures and breakout sessions for hands-on application. From formulating research question, conducting e-Literature searches, designing studies or survey tools, to analysing data and interpreting statistical results, the workshop covered a lot of ground. This helped the 30 over participants refine their assigned studies' research questions and set clear milestones for them. Course materials have been uploaded on the PAROS website.

The mentally demanding workshop ended with a gastronomically delightful Cantonese dinner at SAFRA Yishun, accompanied by the voices of the few who gamely belted out their lungs for the group.

The PAROS team would like to thank the guest speakers, Prof Desley Hegney and Prof Beverly Taylor, and SCRI Epidemiology department. Special thanks go to Dr Goh E Shaun, and his team at KTPH A & E for making this event at KTPH a success. ■

Trial Coordinating Centre / Secretariat

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Prof Desley G. Hegney  
[Photo from the National University of Singapore]

## Qualitative Research in the Emergency Department

By Prof Desley G. Hegney, PhD, BA(hons), DNE, COHN, CANN, RN, RM

Triggered by a desire to improve triage as there was a lack of standardization in the application of the Australasian Triage Scale (ATS), we carried out a study on "Toowoomba Adult Trauma Triage Tool", a computerized clinical decision support tool, in Queensland, Australia (Accid Emerg Nurs. 2005 Jan;13(1):54-60). To ascertain the perceptions of the users (triage nurses) to the training package, use of TATTT and if it was an acceptable tool for assisting in the assignment of triage urgency, the qualitative phase of the TATTT study asked five questions on the user's perceptions of the:

- simulations (written [on paper], video-taped, or computer simulated scenarios);
- limitations and strengths of the TATTT as a tool to aid triage decisions;
- training program and package and what improvements they could suggest;
- experience of being involved in the study;
- experience of parallel coding (for the nurses at Toowoomba only).

Nurses were used to working with paper simulations and they noted that the paper simulations "cost-wise and resource-wise" were better. They did not "have to worry about finding somewhere that has a television, a computer and a video" player. Interestingly, most participants liked the simulations on the Pocket PC and felt that the best application was "as a teaching tool. It would make people think more about how they triage". After all these years, I can see some conflicting results. Though keen on the Pocket PC as a learning tool, they preferred paper simulations over video and computer ones. I wonder why. Our published report did not explore this, and I no longer have the raw data to go back to, but this brings on a usually obvious question in qualitative research – "WHY?"

If I wanted to pursue the theme that has arisen in this early data – that of it being a teaching tool. I can then find many statements in other questions to support this. The data suggest that the participants found it a good teaching tool, for both inexperienced and experienced ED nurses. The quotes below support this interpretation.

*"It gives me... a bit more confidence in what category you have given someone ... you felt like you can explain a bit better why they have got that category"*  
(inexperienced nurse)

*Prof Desley G. Hegney is the Head of Nursing at the University of Western Australia. She is the former Director of Research of the Alice Lee Centre for Nursing Studies at the National University of Singapore.*

*"There are times when you have to think to yourself, now I think this person needs to be a category 2. However, they could be a category 3. There are times when you really hover between a category... I think the tool makes it more clear-cut"* (experienced nurse).

While it was seen as a tool to help them improve their triage skills and validate a more subjective score, this could be seen as threatening to some.

*"I have found [validating my own triage score] to be extremely difficult. I am not saying that I came to the wrong decisions, but when I'm told to validate [the score] ... I get uncomfortable as I am not used to doing that"*.

However, while it was seen as a tool to build skills, it was also seen as a tool that might decrease skills.

*"I think that with this tool, anyone could triage..."*

The next participant sums up what the overall perceptions of the nurses:

*"The TATTT provides a useful framework to guide the decision making process during triage. However, there may be times when the triage nurse may choose to disregard the score obtained from the application of the tool according to their own clinical judgment, due to unusual circumstances surrounding that presentation. In providing flexibility to allow for the intuition of individual operators, it is important to have a mechanism in place to review those cases whereby the application's score was overridden by the operator"*.

Using an example of a project that I was involved in, I have demonstrated how qualitative data can be used. We validated the tool (and it consistently gave more appropriate triage scores than current practice at that time), but we wanted to know what the users thought about it. Any new tool would need a training program, so we first asked them about the devised training program. Their comments gave us some valuable feedback, but we wanted to know if they would use it, if they would trust it. Mostly, the nurses believed that it was good for training, would be a good tool for inexperienced nurses (as an adjunct to their decision-making), but they would not fully rely on it. There was some concern that the tool would "dumb down" the important role of triage and that any person could use it to triage.

Realising that change always has early adopters and laggards, one could use these findings to modify the training and program on what was shown to be important to users who trialed the tool for us. ■

*"...this brings on a usually obvious question in qualitative research – 'WHY?'"*

# What's brewing

## First Manuscript Accepted

### - Pan-Asian Resuscitation Outcomes Study (PAROS): Rationale, Methodology and Implementation

PAROS' first manuscript entitled "Pan-Asian Resuscitation Outcomes Study (PAROS): Rationale, Methodology and Implementation" has been successfully accepted by Academic Emergency Medicine in June 2011. The author and co-authors would like to thank all those who have contributed to the manuscript. In this article, we feature the key points mentioned in the paper.

#### Introduction

PAROS is a multi-agency study conducted across the Asia-Pacific region. Using this study as the basis of the PAROS Clinical Research Network, the study aims to provide baseline information about out-of-hospital prevalence, management and outcomes describing variations among EMS in the region, and compare systemic and structural interventions to address OHCA. The PAROS study has collaborated with the Cardiac Arrest Registry to Enhance Survival (CARES) in the United States to develop a unified taxonomy. The consensual common taxonomy and data collection methodology used in the PAROS study would allow a valid comparison of population-based incidence and outcomes across network sites and create an opportunity for comparison of data across the globe. Definitions also follow the Utstein recommendations.

#### Inclusion and Exclusion Criteria

All OHCA cases conveyed by EMS or presenting at emergency departments (EDs), as confirmed by the absence of pulse, unresponsiveness, and apnoea, will be included regardless of presumed cardiac and non-cardiac etiologies. Patients who are immediately pronounced dead, for whom resuscitation is not attempted (including those with decapitation, rigor mortis, dependent lividity and known 'do not resuscitate' orders) will be excluded.

#### Primary and Secondary Outcome Measures

The primary outcome data collected is survival to hospital discharge or survival to 30 days post-cardiac arrest for those who have not yet been discharged from the hospital by the 30th day post-arrest. The secondary outcomes collected include return of spontaneous circulation, survival to hospital admission, and neurological status on hospital discharge or on the 30th day post cardiac arrest, if not discharged.

The following tables show the list of participating regions in the PAROS study (Table 1), and their corresponding characteristics (Table 2) collected through a survey:

Table 1: List of Participating Regions by Country

COUNTRY	PARTICIPATING REGION
<i>Regions using Batch Download from National Registries</i>	
Japan	Aichi, Osaka, Tokyo
Korea	Daegu, Gwangju, Goyang, Incheon, Jeju, Seoul
Taiwan	Taipei, Taoyuan
<i>Regions using Electronic Capture System</i>	
Australia	New South Wales
Malaysia	Johor, Kedah, Kelantan, KL/Selangor, Negeri Sembilan, Pahang, Penang, Sarawak, Terengganu
Singapore	Singapore
Taiwan	Tainan
Thailand	Ayutthaya, Bangkok, Nakhon Nayok, Ratchaburi, Chonburi, Phitsanulok, Prachinburi, Songkla, Yala
Turkey	Izmir
United Arab Emirates	Dubai

Table 2: Characteristics of Participating EMS Sites

SITE	REGIONS (POPULATION BASE)	EMS SYSTEM TYPE	NO. OF PARTICIPATING HOSPITALS	LEVEL OF PROVIDERS
Korea	6 (20mn)	Single-tier	232	Basic & intermediate life support
Singapore	1 (5mn)	Single-tier	7	Basic & intermediate life support
Taiwan	3 (8mn)	Single-tier	45	Intermediate & Advanced life support
Japan	3 (24mn)	Single-tier	346	Basic & Advanced life support
Thailand	9 (10mn)	Single-tier	13	Basic & Advanced life support
Malaysia	10 (10mn)	Single-tier	10	Basic life support
Australia	1 (6mn)	Two-tier	119	Basic & Advanced life support
Turkey	1 (4mn)	Single-tier	47	Basic life support
United Arab Emirates	1 (2mn)	Single-tier	11	Basic & Advanced life support

## Condolences to Japan

11 March 2011 marked a very sombre Friday for our friends in Japan. As the multiple tragedies unfolded, many in the Network had expressed concern to know whether our Japanese PAROS friends were safe. A number of the PAROS members were also personally involved in the humanitarian and rebuilding efforts. Three months have passed since the magnitude 9.0 Tohoku earthquake. Although the scale of destruction remained unfathomable to those outside of Japan, we have witnessed the remarkable stoicism of our Japanese friends in the face of these calamities. Let us continue to pray for their recovery. Slowly but surely, their resilience will overcome all odds. ■

## Status of IRB Approvals



Since the start of the Pan-Asian Resuscitation Outcomes Study (PAROS), various countries have been notifying the PAROS secretariat team of the IRB approvals. To date, all 7 sites in

Singapore have obtained ethics approval. Malaysia and Rajavithi Hospital in Bangkok, Thailand, have obtained IRB approval for the PAROS main out-of-hospital cardiac arrest study. ■

## Increasing Layperson CPR & Defibrillation in Japan

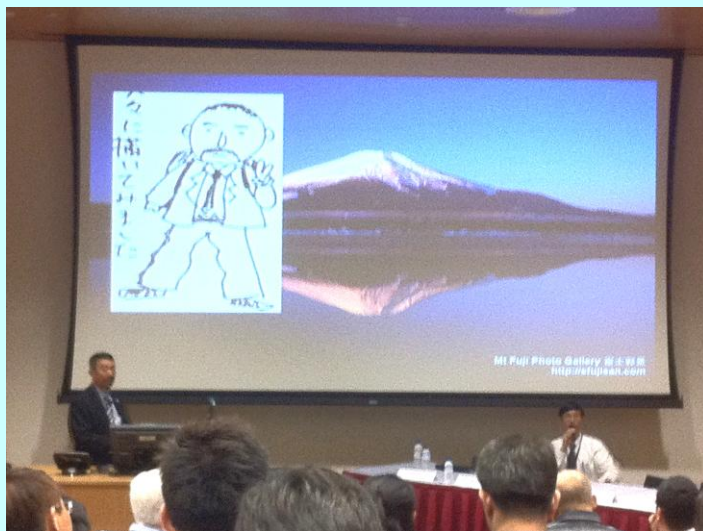
- An educational talk by Prof Hideharu Tanaka

With one-month post-arrest out-of-hospital cardiac arrest (OHCA) survival rates of 12.8% (2008), Japan is arguably the country with the highest OHCA survival rate in the world. Japan's continued success is the result of two key factors – a high penetration of public access defibrillation (PAD) automated external defibrillator (AED), and high bystander cardiopulmonary resuscitation (CPR) rate.

Catalysed by Prince Takamadonomiya's sudden cardiac death in 2002, public access to AEDs was enhanced when the Ministry of Health, Labour and Welfare announced

that AEDs be used by lay persons in 2004. Nation-wide dissemination of public access AEDs reached 234.8 AEDs per 10,000 of the population in 2009, surpassing many other developed countries which ranged from 8.8 to 44.5 (except for USA which had 198.9 AEDs per 10,000). To be effective in improving survival, public access to AED is only half the battle. The other half hinges on improving bystander CPR rates. Believing that early exposure to CPR is necessary to give high quality of bystander CPR, projects such as the PUSH project have rolled out CPR education in elementary schools.

The increase in public access AEDs has led to an improvement in survival rates. Yet, as one of the most progressive people, the Japanese are not resting on their laurels. In future, they intend to amend the Japanese Good Samaritan Law, train more bystanders, incorporate the CPR education into more schools, and continue to place more AEDs in public areas. ■



Prof Tanaka (left) at the conclusion of his presentation as A/Prof Marcus Ong (right) opens to the floor the Q & A session. [Photo taken by the PAROS secretariat team]

*“To be effective in improving survival, easy public’s access to AED is only half the battle. The other half hinges on improving bystander CPR rates.”*

This lecture took place on 13 April 2011. It was organised by the Chapter of Emergency Physicians Academy of Medicine Singapore, and the National Resuscitation Council Singapore. The lecture was supported by the Ministry of Health (Singapore), Duke-NUS Graduate Medical School Singapore, and the PAROS Clinical Research Network.

**Do U Know: Asian EMS**

The Asian Emergency Medical Services Council was established in 2009 as a voluntary, participation-based group. It aims to promote education and advocacy of EMS issues in the Asia-Pacific region through sharing of experience of EMS systems, and creating opportunities for education and training for EMS physicians and providers.

From April 2011, the Asian Emergency Medical Systems (EMS) Council is affiliated with the PAROS Clinical Research Network. It helps to establish and maintain links with counterparts from countries that are not yet one of the PAROS-contributing countries, but yet keen to be part of the research network.

Dr Sang Do Shin (current Chairperson of the Council) will be chairing the coming Asian EMS Council meeting on 4 July 2011.

## Call for New Study Proposals

The call for new study proposals for the PAROS meeting in Taipei (December 2011) has started! Interested parties can submit using the 'New Study Proposal Template' found on the Source Documents page on the PAROS website (<http://www.scri.edu.sg/index.php/paros-clinical-research-network>).

This call for new study proposals is open only to PAROS EXCO members and General Members. The deadline for submission is **1 Nov 2011**.

New Study Proposal



## PAROS Taxonomy Changes

Endorsed by the PAROS EXCO, the following changes have been made to the PAROS taxonomy:

VARIABLE	PREVIOUS	PROPOSED CHANGE
#18 Arrest witnessed by	No mention	<b>Sites that did not distinguish the three sub-categories of bystanders should enter their data into "Bystander – lay person"</b>
#19 Bystander CPR	Indicate whether CPR (chest compressions <b>and/or</b> ventilations) was attempted by a bystander prior to arrival of EMS team.	Indicate whether CPR (chest compressions <b>with/without</b> ventilations) was attempted by a bystander prior to arrival of EMS team.
#23 First arrest rhythm	No mention	<b>Sites that did not distinguish the shockable rhythm of VF and VT, by default should enter their data into "VF".</b>
#29 Prehospital advanced airway (formerly named as "Advanced airway used by EMS/Private Ambulance")	No mention	<b>Cricothyrotomy and tracheotomy are classified as advanced airways. These data should enter into "Other".</b>  <b>Any advanced airways used by private general practitioner of healthcare provider prior to EMS team arrival should be included as prehospital resuscitation.</b>
#30 Prehospital drug administration (formerly named as "Drug administration by EMS/Private ambulance")	No mention	<b>Drugs administration prior to EMS team arrival should be included too, for example drugs administered by private general practitioner or healthcare provider from nursing home.</b>
#44 Advanced airway used at ED	No mention	<b>Cricothyrotomy and tracheotomy are classified as advanced airways. These data should enter into "Other".</b>

The updated taxonomy is available at the Source Documents page of the PAROS website.



# Becoming One of Us

As a progressive network, we are constantly seeking opportunities to grow. We offer two types of registration: (1) General Member and (2) Guest. As a General Member (only offered to PAROS participating countries), you will receive updates from PAROS and you will be able to contribute data and propose studies at PAROS events; if you are from a non-participating country, or would only like to be in our mailing list, you are most welcome to join PAROS as a guest.

<b>APPLICATION TO PAROS</b> (You may select more than one option)	<input type="checkbox"/> General Member* <input type="checkbox"/> Site Principal Investigator (PI)* <input type="checkbox"/> Data Personnel/Study Coordinator* <input type="checkbox"/> Guest (in the mailing list for updates on PAROS)
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\* Applicable only if you are from one of the PAROS participating countries - Australia, Japan, Korea, Malaysia, Singapore, Taiwan, Thailand, Turkey, United Arab Emirates (UAE)

<b>REGISTRANT DETAILS (please provide full details)</b>	<b>Instructions:</b> Please complete this form and submit it to the Network Secretariat at <a href="mailto:sweesung.soon@scri.edu.sg">sweesung.soon@scri.edu.sg</a> . You will receive a confirmation once we have processed your application. If you are applying as a Site PI, upon confirmation of application outcome, please let us have your CV for our retention.
Country	_____
Full name	_____
Position	_____
Department	_____
Institution	_____
Office Mailing Address	_____
Email Address	_____
Contact No. (Office)	_____
Contact No. (Mobile)	_____
Skype Contact (if available)	_____
Fax No.	_____

<b>SITE INFORMATION (only applicable to Site PI)</b>	_____
Country	_____
State	_____
City/EMS District	_____
Population Size of City/State	_____

<b>PRE-HOSPITAL INFORMATION (only applicable to Site PI)</b>	_____
No. of EMS Systems in City/State	_____
Competency of Basic Life Support	<input type="checkbox"/> First Responder <input type="checkbox"/> EMT-Intermediate <input type="checkbox"/> Others, please specify: _____
Competency: Advanced Life Support	<input type="checkbox"/> EMT-Paramedic <input type="checkbox"/> Physician-led <input type="checkbox"/> Nurse-led <input type="checkbox"/> Others, please specify: _____
No. of EMS Personnel in City/State	_____
No. of Ambulance Vehicles in City/State	_____

<b>EMERGENCY DEPARTMENT INFORMATION (only applicable to Site PI)</b>	_____
No. of Acute Hospitals in City/State	_____
No. of Tertiary Hospitals in City/State	_____



- PAROS participating countries**
- |           |          |
|-----------|----------|
| Australia | Japan    |
| Korea     | Malaysia |
| Singapore | Taiwan   |
| Thailand  | Turkey   |
|           | UAE      |

**Mission**  
 To improve outcomes from pre-hospital and emergency care across the Asia-Pacific by promoting high quality research into resuscitation

**Vision**  
 Improving outcomes from pre-hospital and emergency care across the Asia-Pacific

**Website**  
<http://www.scri.edu.sg/index.php/paros-clinical-research-network>

**Trial Coordinating Centre**



Singapore Clinical Research Institute (based in Singapore)  
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*PAROS EXCO member, Network Biostatistician:*  
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