

PREHOSPITAL CARE THROUGH THE AGES



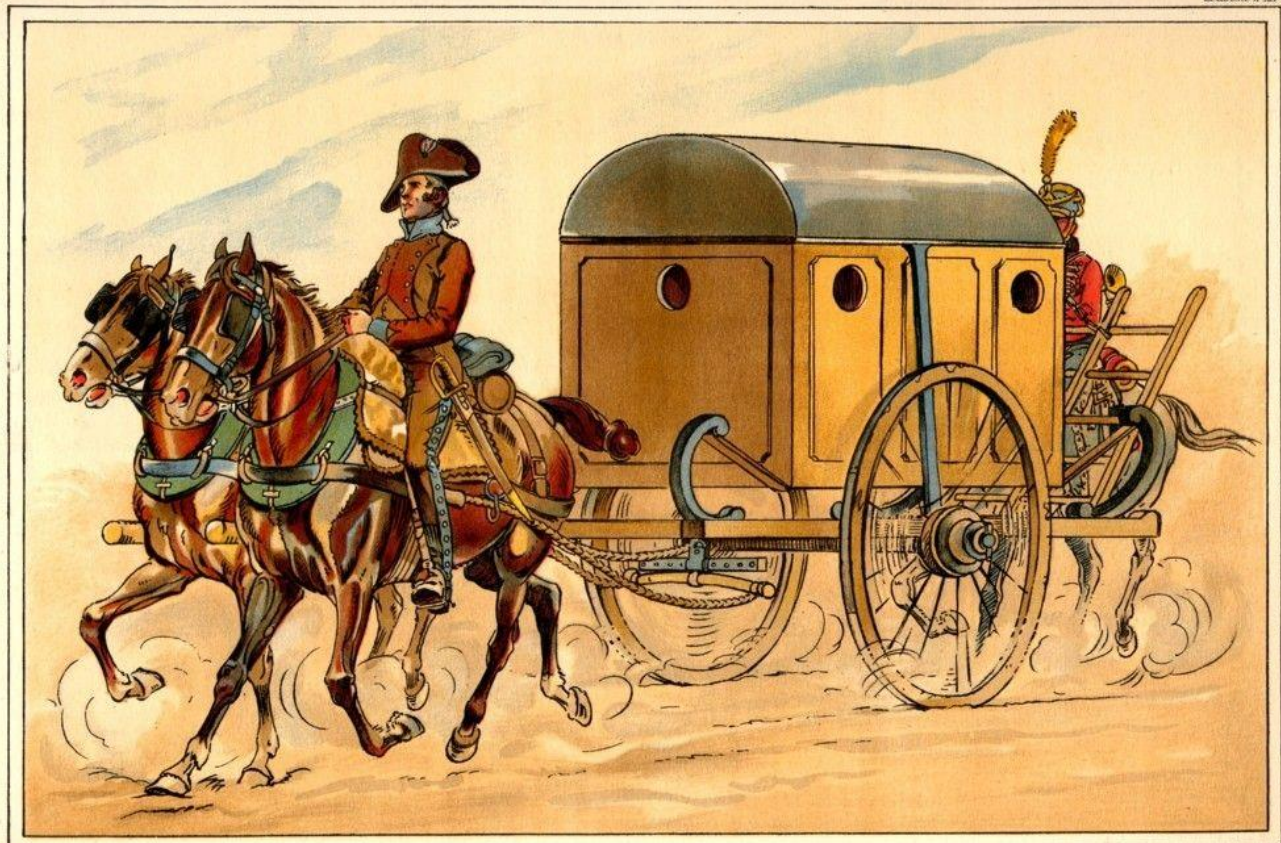
Dr. Sabariah Faizah Jamaluddin
Senior Consultant and Head
Emergency and Trauma Department
Sungai Buloh Hospital
Malaysia



*A long time ago
in a galaxy far,
far away....*



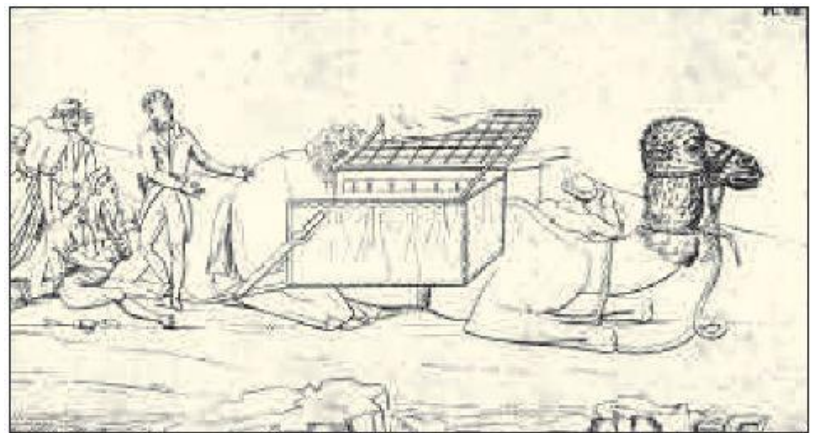
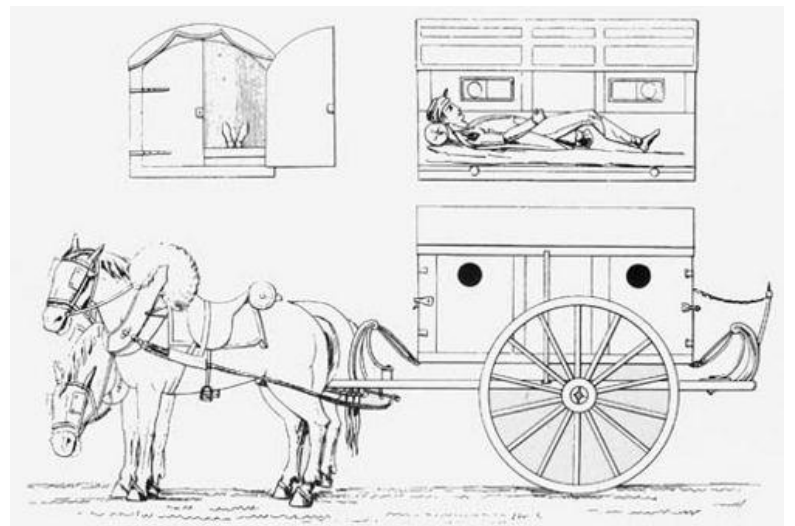
Planche n° 107



Compagnie française des Arts Mécaniques, etc.

EDMOND LAJOUX

*Ambulance Volante
du Baron Larrey - 1807*





EMS in MALAYSIA - a brief history

- The EARLY YEARS
 - Hospitals widely distributed in each district
 - Multi Tiered Hospitals with Referral system
 - EMS Hospital-based limited scope
 - Transportation / Inter-Facility Referrals
 - Main Mode of access - anyone with a vehicle !

PERSONNEL

- Healthcare or non-health care
- From hospital, fire department, civil defence, NGOs and community
- Full time or part time
- Paid or volunteer
- Different level of knowledge

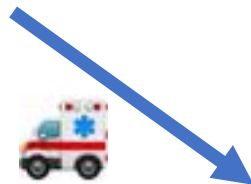
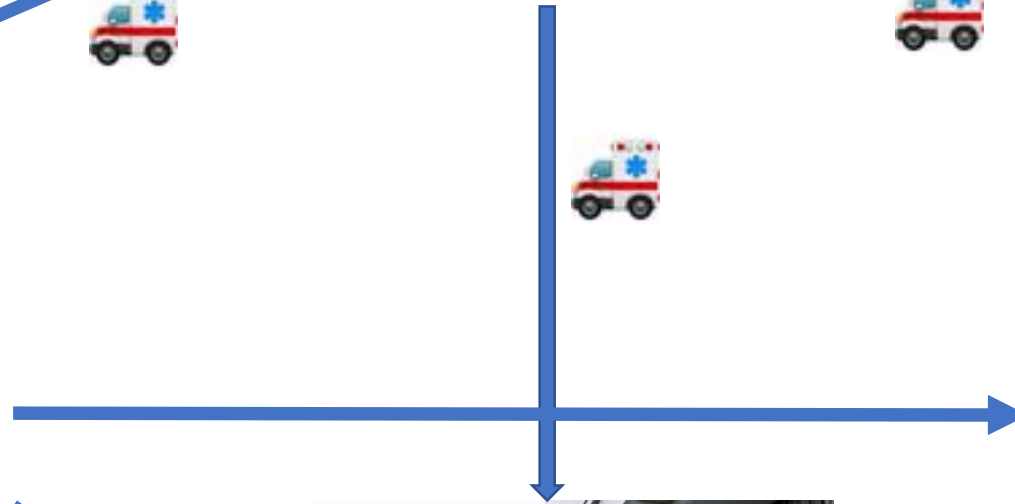


Kambing (Goat's) Lift

PREHOSPITAL CARE (Pre-2007)



Health
Clinics



Non-specialist
hospital



Specialist
hospital



Milestones in Pre-Hospital Care in Malaysia





COMMUNICATION



- One number, 999 since July 2007
- Successfully developed in May 2008 in all emergency agencies
- 24 hours emergency coordinating centre
- Answer all calls requesting for emergency ambulance service from public or health facilities
- Online Medical direction with Emergency Physician for consultation via Government Integrated Radio Network (GIRN) or handphone



MALAYSIAN EMERGENCY COORDINATING CENTRE (MECC) Distribution Peninsular Malaysia





MECC Distribution East Malaysia

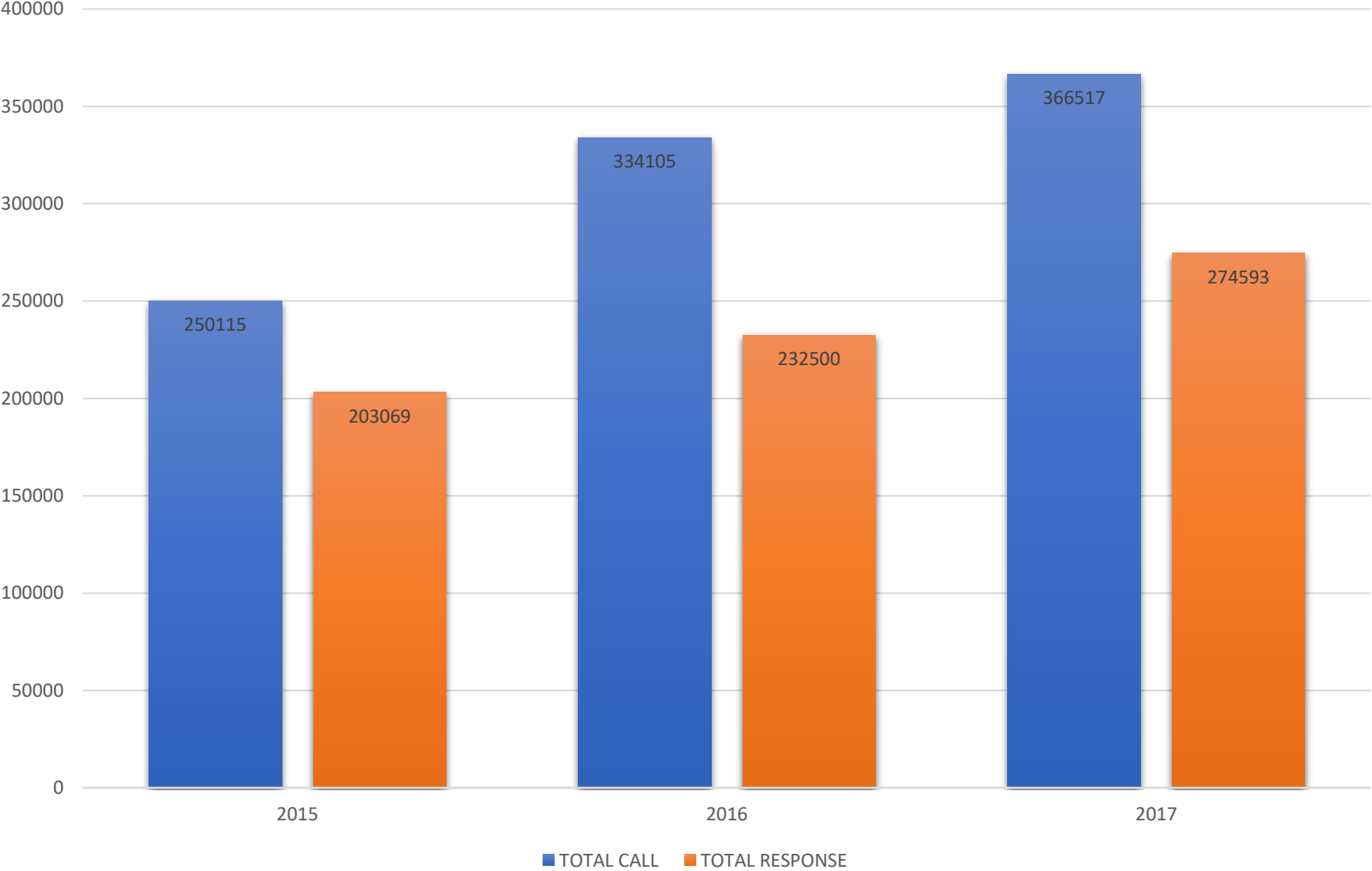


EMERGENCY AND INTERFACILIY TRANSFERS





MECC EMERGENCY CALLS AND RESPONSES



TRAINING

- Emergency Physician get involved in training ;
 - First Responder Life Support
 - Prehospital Care Level 1
 - Prehospital Care Level 2
 - Advanced Diploma in Emergency Care
 - Degree Emergency Paramedic.
 - Prehospital Care Physician

Continuous Education



CLASSROOM CME SESSION



SKILLS SESSION



Training Exercise





Training Exercise



MEDICAL DIRECTION

Online medical direction

- Call or discuss with Emergency Physician

Offline medical direction

- By protocols that pre-authorize responder to provide care



Kambing (Goat's) Lift

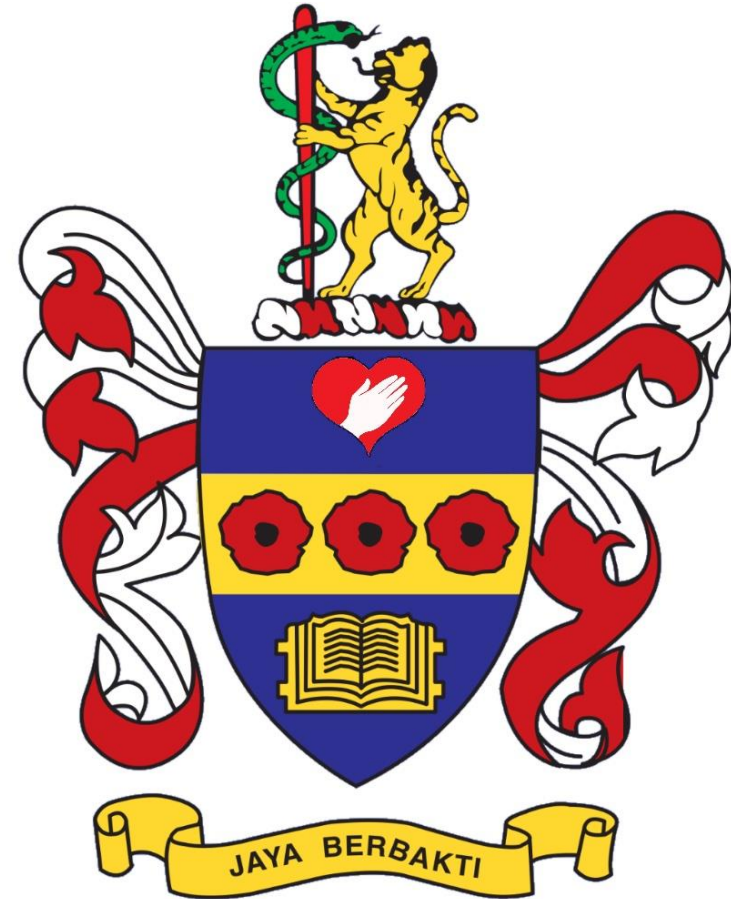


WHAT'S NEXT

- Standardized training or certification for prehospital care providers within Malaysia
- Pre hospital care interventions
- Law governing EMS in Malaysia
- Rural access
- Research
- Funding

Standardisation of training

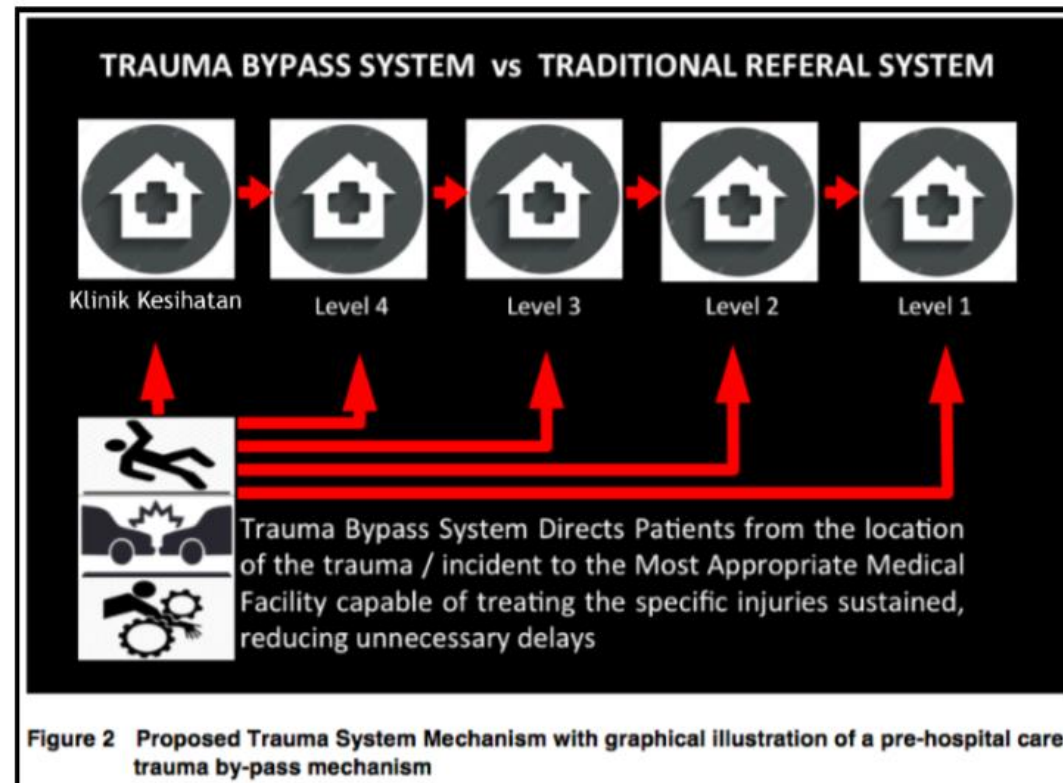
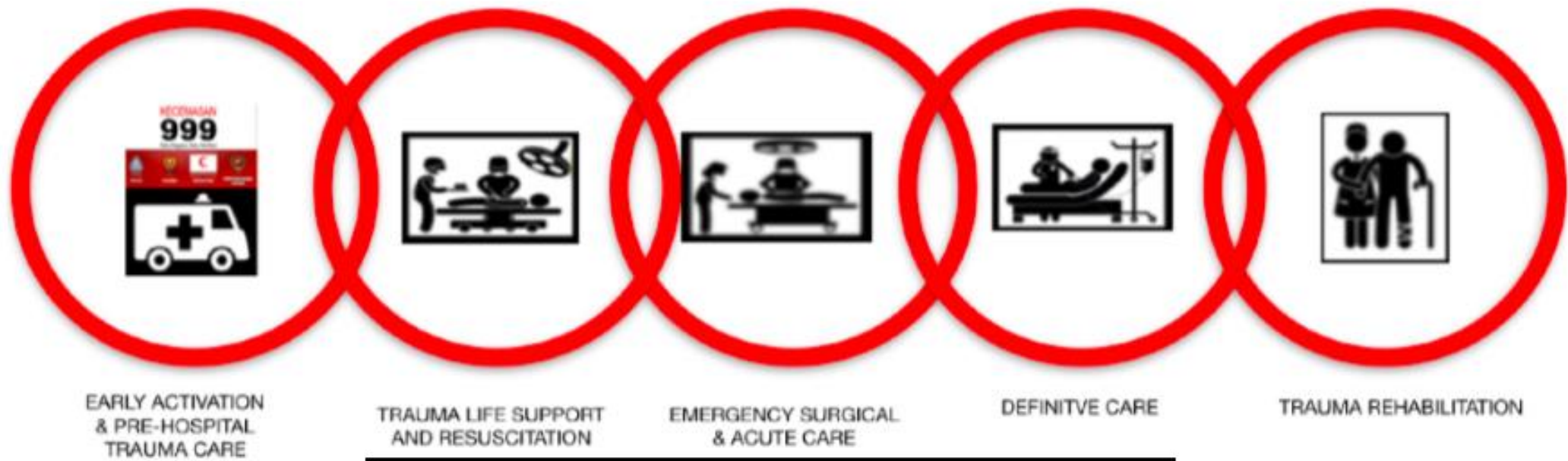
- National Examination for Advanced Care Responder in Prehospital Care services



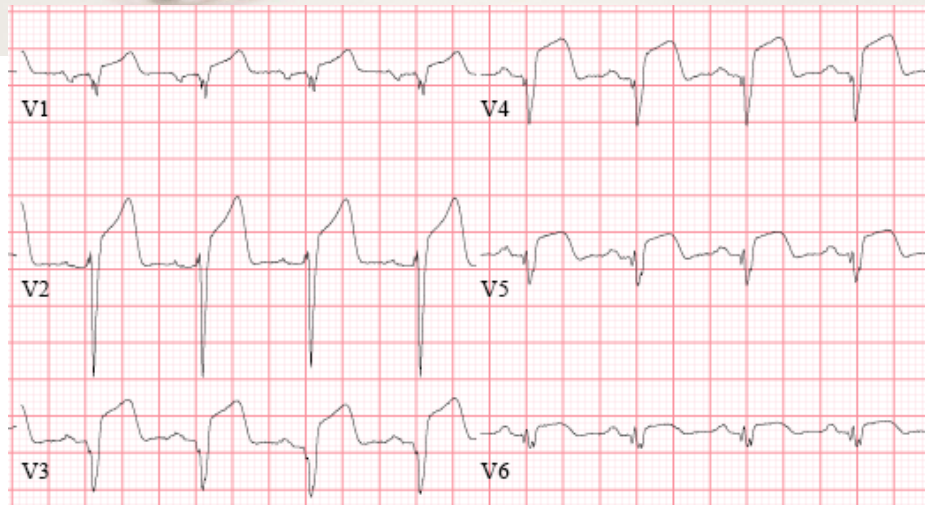
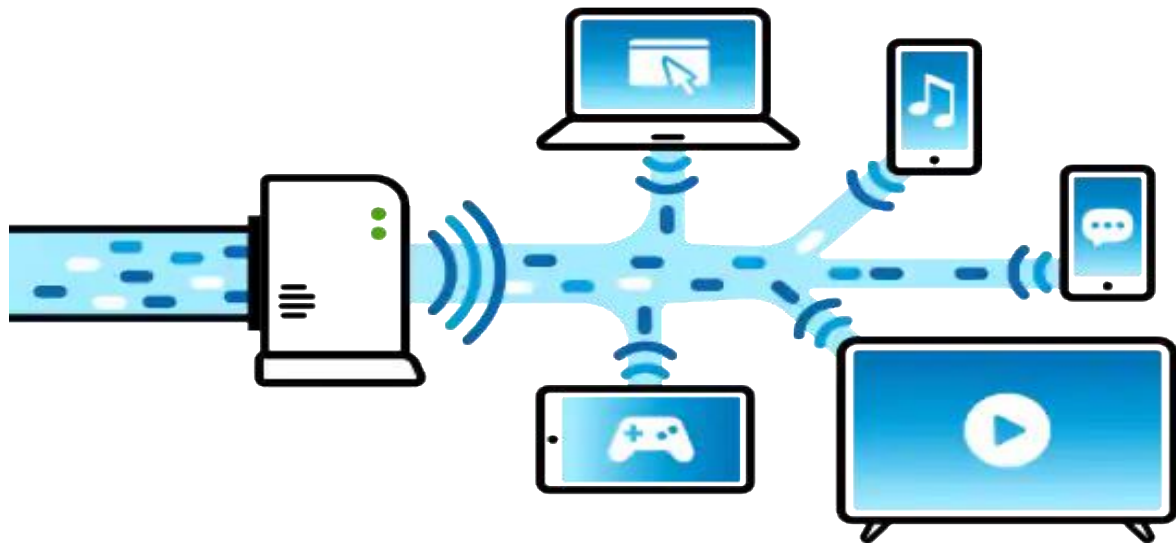
A BLUEPRINT PROPOSAL THE MALAYSIAN TRAUMA CARE SYSTEM

-The Proposed Framework & Module









Impact of Prehospital Thrombolysis for Acute Myocardial Infarction on 1-Year Outcome

Results From the French Nationwide USIC 2000 Registry

Nicolas Danchin, MD; Didier Blanchard, MD; Philippe Gabriel Steg, MD; Patrick Sauval, MD; Guy Hanania, MD; Patrick Goldstein, MD; Jean-Pierre Cambou, MD; Pascal Guéret, MD; Laurent Vaur, MD; Youcef Boutalbi, MD; Nathalie Genès, MD; Jean-Marc Lablanche, MD; for the USIC 2000 Investigators

Circulation is available at <http://www.circulationaha.org>

DOI: 10.1161/01.CIR.0000143144.82338.36

Review

May 24/31, 2000

Mortality and Prehospital Thrombolysis for Acute Myocardial Infarction A Meta-analysis

Laurie J. Morrison, MD, FRCPC; P. Richard Verbeek, MD, FRCPC; Andrew C. McDonald, MD, FRCPC; et al

JAMA. 2000;283(20):2686-2692. doi:10.1001/jama.283.20.2686

- ☐ Prehospital management of acute myocardial infarction: Electrocardiogram acquisition and interpretation, and thrombolysis by prehospital care providers. (PMID:9852937)

Abstract

Citations

Related Articles

Data

BioEntities

External Links

[Myers RB](#)

[The Canadian Journal of Cardiology](#) [01 Oct 1998, 14(10):1231-1240]



Original Investigation

Effects of Golden Hour Thrombolysis A Prehospital Acute Neurological Treatment and Optimization of Medical Care in Stroke (PHANTOM-S) Substudy

Martin Ebinger, MD; Alexander Kunz, MD; Matthias Wendt, MD; Michal Rozanski, MD; Benjamin Winter, MD;
Carolin Waldschmidt, MD; Joachim Weber, MD; Kersten Villringer, MD; Jochen B. Fiebach, MD;
Heinrich J. Audebert, MD

JAMA Neurol. 2015;72(1):25-30. doi:10.1001/jamaneurol.2014.3188
Published online November 17, 2014.

Improving access to acute stroke therapies: a controlled trial of organised pre-hospital and emergency care

Debbie A Quain, Mark W Parsons, Allan R Loudfoot, Neil J Spratt, Malcolm K Evans, Michelle L Russell, Angela T Royan,
Andrea G Moore, Ferdinand Miteff, Carolyn J Hullick, John Attia, Patrick McElduff and Christopher R Levi

'Boussignac' continuous positive airway pressure system: practical use in a prehospital medical care unit

Templier, François; Dolveck, François; Baer, Michel; Chauvin, Marcel; Fletcher, Dominique

European Journal of Emergency Medicine: June 2003 - Volume 10 - Issue 2 - p 87-93
Original Articles



Bakke et al. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine* 2014, **22**:69
<http://www.sjtreem.com/content/22/1/69>

SCANDINAVIAN JOURNAL OF
**trauma, resuscitation
& emergency medicine**

REVIEW

Open Access

Continuous positive airway pressure and noninvasive ventilation in prehospital treatment of patients with acute respiratory failure: a systematic review of controlled studies

Skule A Bakke^{1*}, Morten T Botker², Ingunn S Riddervold², Hans Kirkegaard³ and Erika F Christensen²

ACADEMIC EMERGENCY MEDICINE 2014;21:960–970




Article
Text

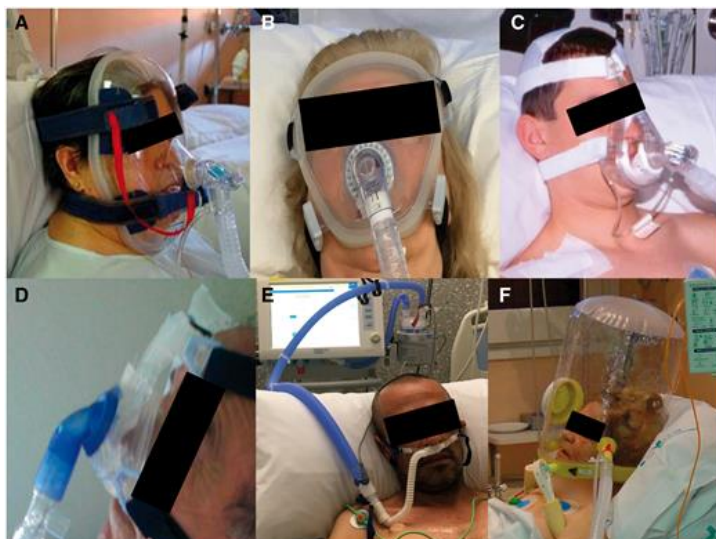
Article
Info

Citation
Tools

Prehospital care

Early out-of-hospital non-invasive ventilation is superior to standard medical treatment in patients with acute respiratory failure: a pilot study

Markus Sören Roessler¹, Dorothee Susanne Schmid¹, Peter Michels¹, Oliver Schmid¹, Klaus Jung², Jörg Stöber³, Peter Neumann⁴, Michael Quintel¹, Onnen Moerer¹



Academic Emergency Medicine

Official Journal of the Society for Academic Emergency Medicine

Progressive Clinical Practice | Open Access



Prehospital Noninvasive Ventilation for Acute Respiratory Failure: Systematic Review, Network Meta-analysis, and Individual Patient Data Meta-analysis

Ventilación No Invasiva Extrahospitalaria en la Insuficiencia Respiratoria Aguda: Revisión Sistemática, Metanálisis en Red y Metanálisis de Datos de Paciente Individual

Steve Goodacre PhD, John W. Stevens PhD, Abdullah Pandor MSc, Edith Poku MBChB, Shijie Ren PhD, Anna Cantrell MA, Vincent Bounes PhD, Arantxa Mas MD, ... See all authors

First published: 01 October 2014 | <https://doi.org/10.1111/acem.12466> | Cited by: 9

[< Previous Abstract](#) | [Next Abstract >](#)

Tranexamic acid as part of remote damage-control resuscitation in the prehospital setting: A critical appraisal of the medical literature and available alternatives

Ausset, Sylvain MD; Glassberg, Elon MD, MHA; Nadler, Roy MD; Sunde, Geir MD; Cap, Andrew P. MD, PhD; Hoffmann, Clément MD; Plang, Soryapong MD; Sailliol, Anne MD

Journal of Trauma and Acute Care Surgery: June 2015 - Volume 78 - Issue 6 - p S70–S75

doi: 10.1097/TA.0000000000000640

[Review Articles](#)



Journal
Prehospital Emergency Care >
Volume 20, 2016 - Issue 4

Enter keywords, authors, DOI etc.

1604

Views

5


CrossRef citations

17


Altmetric


Original Contributions

Development of a Prehospital Tranexamic Acid Administration Protocol

David S. Strosberg , MD, Michelle C. Nguyen, MD, Lisa Mostafavifar, PharmD, Howard Mell, MD, MPH & David C. Evans, MD

Pages 462-466 | Received 06 Nov 2015, Accepted 01 Dec 2015, Published online: 01 Mar 2016

 Download citation

 <https://doi.org/10.3109/10903127.2015.1128033>

 Check for updates

Kunze-Szikszay et al. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine* (2016) 24:122
DOI 10.1186/s13049-016-0314-4

Scandinavian Journal of Trauma,
Resuscitation and Emergency Medicine

ORIGINAL RESEARCH

Open Access



The pre-hospital administration of tranexamic acid to patients with multiple injuries and its effects on rotational thrombelastometry: a prospective observational study in pre-hospital emergency medicine

Nils Kunze-Szikszay^{1*}, Lennart A. Krack¹, Pauline Wildenauer¹, Saskia Wand¹, Tim Heyne¹, Karoline Walliser¹, Christopher Spering², Martin Bauer¹, Michael Quintel¹ and Markus Roessler¹

Wafaisade et al. *Critical Care* (2016) 20:143
DOI 10.1186/s13054-016-1322-5

Critical Care

RESEARCH

Open Access



Prehospital administration of tranexamic acid in trauma patients

Arasch Wafaisade^{1*}, Rolf Lefering², Bertil Bouillon¹, Andreas B. Böhmer³, Michael Gäßler⁴, Matthias Ruppert⁴ and TraumaRegister DGU

ADMINISTRATION OF TRANEXAMIC ACID IN PREHOSPITAL CARE FOR VICTIMS OF SEVERE TRAUMA

- Patient 16 years old and trauma impact < 3 hours.
- One of the following criteria :
 - Suspected severe internal/external haemorrhage
 - Systolic blood pressure, 100 mmHg
 - Traumatic amputation proximal to wrist/ankle
 - Penetrating trauma to neck, chest, abdomen, pelvis or posterior trunk
- For victims with any one of the following criteria with online Medical Direction :
 - Entrapment
 - Heart rate > 110 beats/min
 - Age < 16 years old with criteria listed above





© Can Stock Photo - csp22691258

Population

31,381,992 (July 2017 est.)



14 years
5-24 years
5-54 years
5-64 years
5 years a

total dep
outh dep
derly de
potential

total: 28.5
ale: 28.2
male: 28

37% (20

9.1 births



Death rate

5.1 deaths/1,000 population (2017 est.)

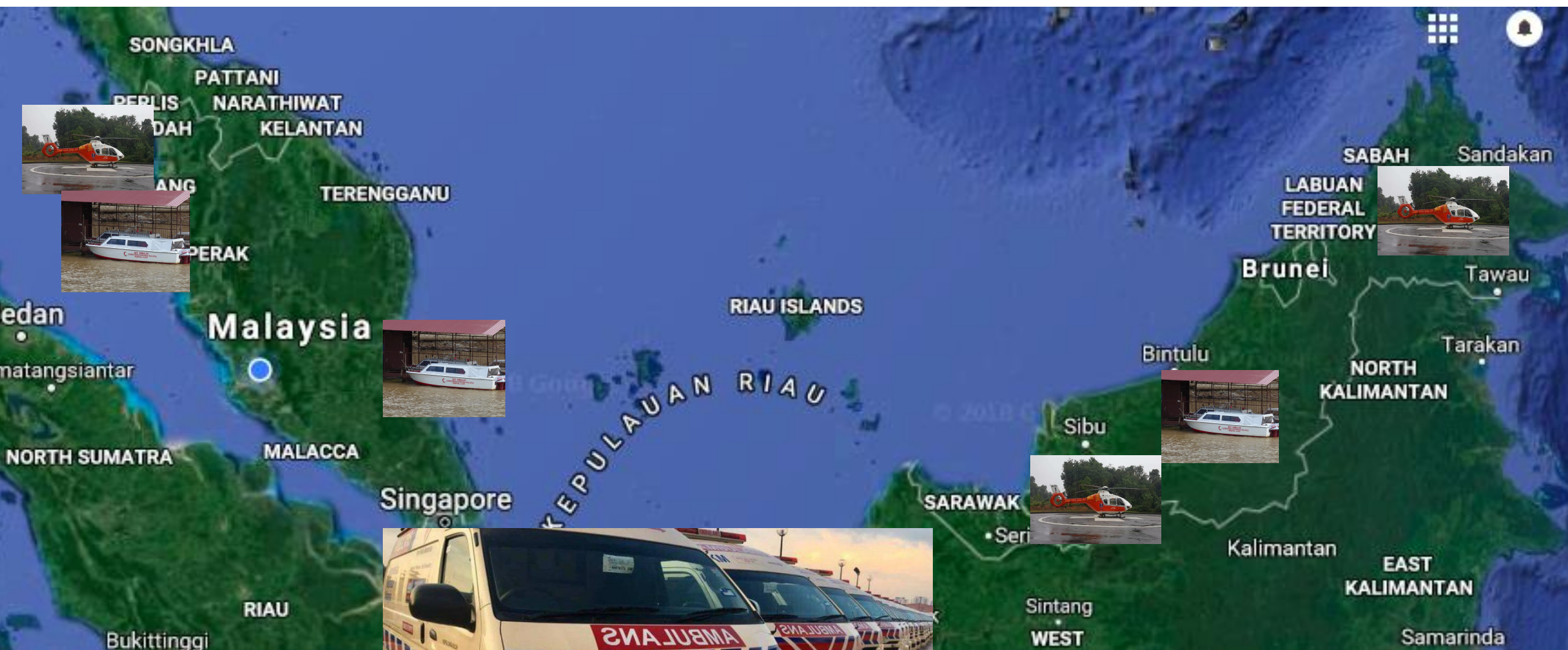
Net migration rate

0.3 migrant(s)/1,000 population (2017 est.)

Urbanization

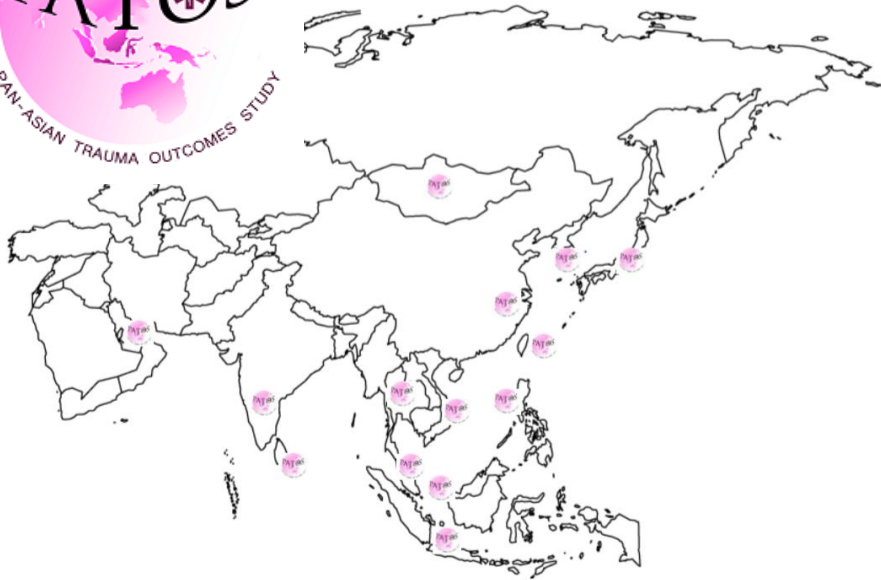
urban population: 76% of total population (2017)

rate of urbanization: 2.19% annual rate of change (2015-20 est.)





PATOS Participation Communities



PATOS CRN

(N=11)

Japan
Korea
China
Taiwan
Philippines
Vietnam
Thailand
Malaysia
Singapore
India
UAE

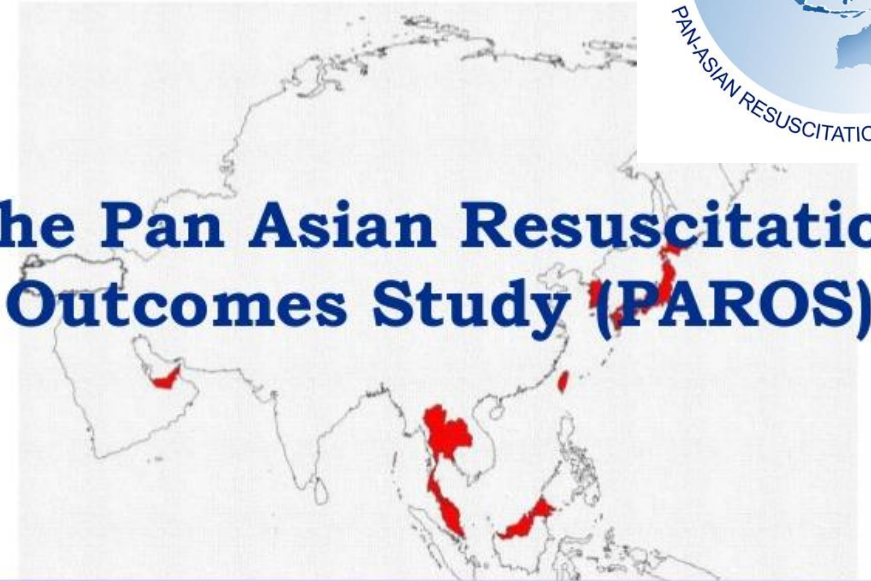
Observers (N=4)

Mongolia
Indonesia
Sri Lanka
Hong Kong

PAN TRAUMA OUTCOME STUDY



The Pan Asian Resuscitation Outcomes Study (PAROS)

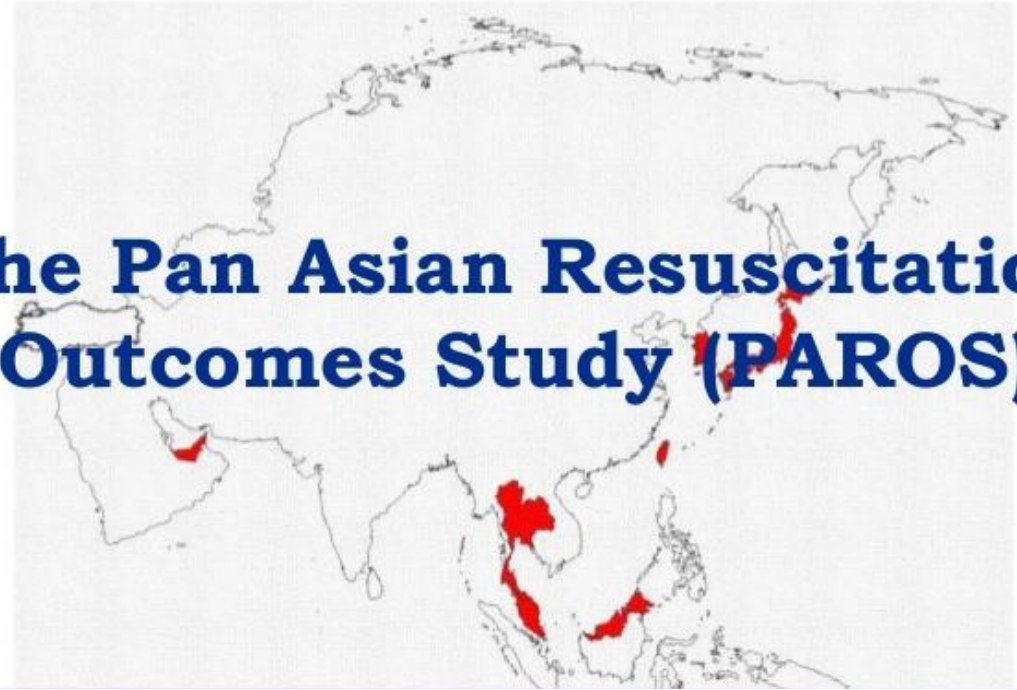


A/Prof Marcus Ong Eng Hock

Senior Consultant, Clinician Scientist and Director of Research
Department of Emergency Medicine, Singapore General Hospital
Associate Director, Health Services and Systems Research
Duke-NUS Graduate Medical School, Singapore



The Pan Asian Resuscitation Outcomes Study (PAROS)







Resuscitation

Volume 114, May 2017, Pages 152-156



Simulation and education

Drones may be used to save lives in out of hospital cardiac arrest due to drowning ☆

A. Claesson ^a , L. Svensson ^a, P. Nordberg ^a, M. Ringh ^a, M. Rosenqvist ^a, T. Djarv ^a, J. Samuelsson ^b, O. Hernborg ^c, P. Dahlbom ^d, A. Jansson ^d, J. Hollenberg ^a

Show more

<https://doi.org/10.1016/j.resuscitation.2017.01.003>

[Get rights and content](#)

Claesson et al. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine* (2016) 24:124
DOI 10.1186/s13049-016-0313-5

Scandinavian Journal of Trauma,
Resuscitation and Emergency Medicine

ORIGINAL RESEARCH

Open Access



Unmanned aerial vehicles (drones) in out-of-hospital-cardiac-arrest

A. Claesson^{1*}, D. Fredman¹, L. Svensson¹, M. Ringh¹, J. Hollenberg¹, P. Nordberg¹, M. Rosenqvist², T. Djarv¹, S. Österberg¹, J. Lennartsson³ and Y. Ban³

Circulation

Hello, Guest!

[MY ALERTS](#)

[SIGN IN](#)

[JOIN](#)



[HOME](#)

[ABOUT THIS JOURNAL](#)

[ALL ISSUES](#)

[SUBJECTS](#)

[BROWSE FEATURES](#)

[RESOURCES](#)

[AHA JOURNALS](#)

ORIGINAL RESEARCH ARTICLE

Optimizing a Drone Network to Deliver Automated External Defibrillators

Justin J. Bouillier, Steven C. Brooks, Alyf Janmohamed, Adam Byers, Jason E. Buick, Cathy Zhan, Angela P. Schoellig, Sheldon Cheskes, Laurie J. Morrison, Timothy C. Y. Chan
and on behalf of the Rescu Epistery Investigators



DOI <https://doi.org/10.1161/CIRCULATIONAHA.116.026318>
Circulation. 2017;CIRCULATIONAHA.116.026318
Originally published March 2, 2017







Wish List EMS

- Emergency Physician Led
- Professional Paramedic
- International Standards
- Economically resilient
- Community Needs
- Proud of, as our own

Professorial Lecture

EMERGENCY MEDICAL SERVICES IN PERSPECTIVE: **PAST, PRESENT & FUTURE**

BY PROF RONALD G. PIRRALLO

- Vice-Chair for Academic Affairs
Department of Emergency Medicine,
Greenville Health System
- Professor, University of South Carolina
School of Medicine - Greenville



DATE : 2ND AUGUST 2018
TIME : 1400 HR - 1600 HR
VENUE : SEMINAR ROOM 1,
FACULTY OF MEDICINE,
UNIVERSITI TEKNOLOGI MARA
(UiTM) SUNGAI BULOH

THIS LECTURE IS **FREE** AND **OPEN** TO EVERYONE

FOR DETAILS & RSVP,

Kindly Contact

DR FAZRUL :
013.318.4386



Masters Session WITH **PROF RONALD G. PIRRALLO**

- Vice-Chair for Academic Affairs
Department of Emergency Medicine,
Greenville Health System
- Professor, University of South Carolina
School of Medicine - Greenville



DATE : 4TH AUGUST 2018
TIME : 0830 HR - 1000 HR
TITLE : TOP 9 EMS MEDICINE
INTERVENTIONS THAT
IMPROVE OUTCOMES
VENUE : AUDITORIUM 3,
FACULTY OF MEDICINE,
UITM SG BULOH



UNIVERSITI
TEKNOLOGI
MARA



selamat **danke** **thank you** **gracias** **terima kasih** **merci**
Bayerlalaа рахмат 謝謝 ngiyabonga
спасибо faafetai lava mersi kua ora barka welalin tack teşekkür ederim
vinaka blagodaram dank je misaotra matondo paldies grazzi mahalo
nami nandri kiitos dankie dhanyavadi maururu koszonom tapadh leat
enkosí bayatalaa gracie hvala
dziękuję
obrigado sagolun chnorakaloutioun gratias ago gracies sulpay go raibh maith agat
sobi dekuji mesí didi madloba najis tuke ありがとう tanemirt grazie arigatō takk dakujem trugarez
kam sah hamnida rahmat terima kasih xiexie
তোমাকে ধন্যবাদ 감사합니다

WWW.MALAYSIA TRAUMA CONFERENCE.COM

SEPTEMBER
2018
13- 14



1ST

MALAYSIA TRAUMA CONFERENCE

Incorporating the 7th Sungai Buloh Trauma Update and 4th Johor Trauma Conference

BRIDGING GAPS CONSOLIDATING TRAUMA SPECIALTY CARE

VENUE : THE EVERLY PUTRAJAYA

REGISTRATION FEE	EARLY BIRD (BEFORE 15 th JULY)	REGULAR	INTERNATIONAL DELEGATES
SPECIALIST	RM400	RM500	USD 250
MEDICAL OFFICER / HOUSE OFFICER/ TRAINEE REGISTRAR	RM400	RM450	USD 200
PARAMEDIC / ALLIED HEALTH	RM300	RM350	USD 100
STUDENT	RM300	RM350	USD 100

PRE-CONFERENCE WORKSHOP

- * TRAUMA SURGERY SKILLS COURSE
- * TRAUMA ULTRASOUND COURSE : MORE THAN JUST E-FAST
- * TRAUMA MOULAGE COMPETITION

ORAL AND POSTER COMPETITION

ABSTRACTS ARE WELCOMED.

REGISTER WITH US HERE →

Contact Person : Dr Lee Hui Mei : 017-5581340. Dr Sangeetha : 014-3475652.

Sister Maziana : 018-7707900 PPP Zulfaz : 018-8747604



ORGANIZED BY:



WWW.MALAYSIA TRAUMA CONFERENCE.COM