Primary Trauma Care (Myanmar)
Progress Report for January ~ March 2011

Prepared for: The Royal Australasian College of Surgeons &
the Myanmar Medical Association

Prepared by: Dr James HB Kong, Programme Director (International)
for the Primary Trauma Care (MM) Programme

Pictures from the PtC MM-March 2011

waiting for the 'elders' (JK in the background)

Professor Myint Thaung encouraging the troops

One of the March 2011 Graduation Group

REPORT FOR JANUARY – MARCH 2011

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12 April 2011

Update PTC MM Program

Dates : January 14~19th 2011 (Yangon)
March 18~21st, 2011 (Yangon)

January 2011

- Drs. Tsun Woon Lee (Course Director); James Kong, Kou Sio Kei; Georgina Phillips and
- Michael Holland, RACS Presentative.
- Ms Daliah Moss, Executive Director RACS

March 2011

- Dr. James Kong

Programme

January 13	PTC Supervisor Preparatory Evening
January 14	PTC Supervisor Forum,
	PTC Instructors' Course
January 15~16; 17~18	PTC Provider Course 1 & 2 (11th PTC Programme)

- 14 Local Instructors
- 26 + 24 Candidates

January 19	Trauma Symposium (MMA Annual Scientific Congress)
March 18~19; 20~21	PTC Provider Course 1 & 2 (12th PTC Programme)

- 24 +22 Candidates

Comments

Supervisor Forum.

- All Senior Instructors led by the stalwarts… VJ Kumar, Aung Maw, Zaw Min Han & Saw Hpone Nyi were divided into 3 groups
- Discussion on teaching issues, Preparation for Courses.
- Goat Carcasses (neck -larynx, trachea and chest wall) were purchase for simulation practice.
- All instructors had opportunity to practice on crico-thyroidotomy, insertion of chest drain and teaching of skills.
- Overall, this was a useful refresher session for the senior instructors allowing opportunity to discuss issues encountered during their own course management.

Instructors' Course…

- There were 14 candidates
  (a few of which had already been participating in the PTC Provider courses to give lectures, etc.,)
- The international facilitators were responsible for conducting the main program (lectures etc.,) but the senior supervisors -participated in the group (practical) session with the international members.
- It was discussed and agreed that future instructor courses will be conducted on an annual basis with the international facilitators participating on a similar approach…to assist/enhance the local 'supervisor' level instructor abilities.
  I.e. 1/2 day Supervisors' Forum + 1 day Instructor Courses.

This visit in January 2011 was also enhanced by the presence of
Ms Daliah Moss, Director of International Affairs RACS and
Dr Michael Holland, Treasure, RACS, representing the President, Ian Civil.

- Both were present to participate and observe in the Primary Traumar Care course being conducted.
- The provider courses were conducted by the local instructors with support and supervision by the international team.
- The majority of the attendees on this occasion were from the township and district hospital around Yangon.
- The aim of this is to assist the Myanmar PTC Special Interest Group to develop a core team of PTC providers who will provide local coordination with the MMA group when these programs are disseminated to be conducted at the local hospitals.

Ancillary meetings, visits & discussions...

- Dr Michael Holland had the opportunity to meet with various members of the Myanmar Medical Association … Professor Kyaw Myint Naing, Profesor Myint Thaung, Professor Zaw Wai Soe
- Visit to to the Yangon General Hospital (this is the teaching of hospital of the Institute of Medicine I)… the Medical Superintendent, Orthopaedic Service and the newly 'establishing' emergency service unit.
- Visit to Institute of Medicine I… meeting with the Rector of the Institute
- Dr Georgina Phillips discussed with Professor Zaw Wai Soe, senior Orthopaedic Consultat at YGH who has been tasked to assist with the development of the Emergency Medicine program/service. A plan for a collaboration and educational visit to the Australian Hospital units in Victoria as well as the AEM ACS in November 2011 is being developed.
- Dr Michael Holland as the representative of the RACS also had meetings with the senior executives of the MMA to discuss future collaborations from the perspectives of the 2 organizations.

Trauma Symposium...(Myanmar Medical Association 57th Scientific Congress

What trauma patients need...	
1. Introducing the Scene:	**Sio Kei Kou, Orthopaedic Surgeon**
How to provide for them...	
2. Pre-Hospital & the ER	**Georgina Phillips, Emergency Physician**
3. Trauma at the Hospital	**James Kong, Surgeon**
4. Trauma -the Disaster Management	**Tsun Woon Lee, Hospital Chief Executive**
5. National Perspectives: Training etc.	**Michael Hollands, Surgeon**
Question & Answers... Panel Discussions	

- This was conducted as the opening symposium of the Congress and delivered to a packed audience with a closed circuit link to the secondary auditorium.
- The Symposium Program (see attached 2 page flyer)
- The speakers are collaborating to produce a paper for submission to the Myanmar Medical Journal.

March 2011...(12th PTC Myanmar Program)

- This was conducted in the Myanmar Medical Council.
- This venue although not as 'ideal' as the MMA Headquarters, is more readily available and the local organizers have adapted to this environment well.
- The stalwarts of Dr VJ Kumar, Aung Maw, Saw Hpone NI and Ni Ni Win ensured that the courses were conducted very effectively.
- The majority of the course attendees were post-graduate specialist trainees practising in the Yangon hospitals.

Primary Trauma Care (Myanmar) Program Background Information

Initial Working Body

Chairman	Professor Kyaw Myint Naing	President, Myanmar Medical Association
Vice Chairman	Professor Brigadier General Tun Tun	President, Myanmar Orthopaedic Association
Secretary	Professor Myint Thaung	General Secretary, Myanmar Medical Association
Secretary (1) Secretary (2)	Dr. Khine Soe Win Professor Zaw Wai Soe	Executives of Myanmar Medical Association
Treasurer	Dr Daw Khin Mar Aye	
Members	Professor Samuel Kyaw Hla Professor Tin Myint *Others…*	Vice President, Myanmar Medical Association Anaesthesia Presidents of Surgical Society Presidents of O & G Society Presidents of Paediatricl Society Presidents of G. P. Society
Secretariats	Dr Kaung Myat Dr Kyaw Min Soe Dr Kyaw Kyaw Swe Dr Tin Ko Ko Dr Maw Maw Oo	Members, Orthopaedic Society

International Facilitators (for Inaugural Meeting... March 2009)

RACS	Ms Daliah Moss, Director, External Affairs	Program Sponsor
Australia	Dr Georgina Phillips ** Dr Antony Chenhall	Emergency Physician Emergency Physician
East Timor	Dr Eric Vreede	Anaesthetist
Hong Kong	Dr James H. B. Kong ** Dr Tsun Woon Lee ** Dr Tai Wai Wong ** Professor Sydney Chung Dr Anthony Ho	Surgeon Programme i-Director Anaesthetist Course i-Director Emergency Physician Surgeon Anaesthetist

Additional members of the International Facilitators

Australia	Dr Stephen Swallow ** Dr Max Esser	Anaesthetist Orthopaedic Surgeon
Hong Kong	Dr Yu Fat Chow ** Dr Sio Kei Kou	Anaesthetist Orthopaedic Surgeon

** These are currently the regular international facilitators in the overall group.

- It is the aim of the PTC International Facilitator Group that we will not to actively introduce new members to join but to utilise the strength of the existing 'senior' staff to assist the Myanmar PTC Group to become more self sufficient.
- New members who are experience and senior instructors however are still most welcomed.
- The key areas of assistance we believe will be in supervision and support for the Instructor courses.
- Supervision of the 'newly trained' instructors during their initial courses.
- Providing regular refresher and forum for the instructors in the next 2 years.
- We believe that a 'core membership' of 12 senior experienced international facilitators will be able to support the ongoing PTC MM program in the coming 2 years.
- The current core of senior local instructors will be able to lead the progressive development of the local.
- See proposed PTC Myanmar organization structure (next page).

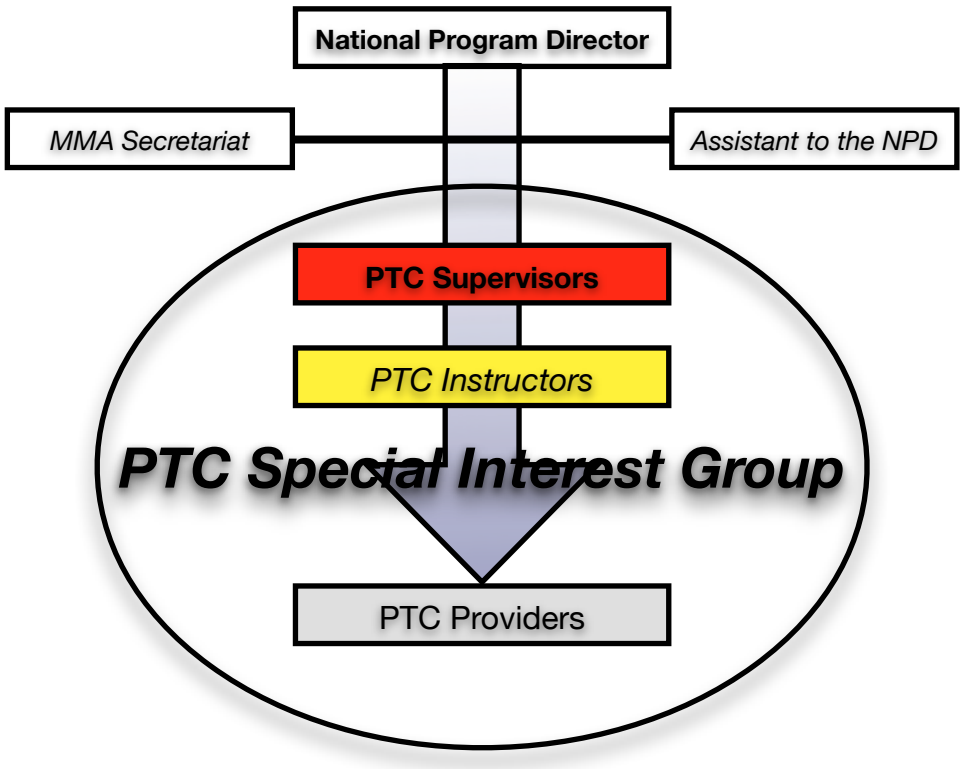
Program Statistics (upto March 2011)

No	Year	Month	Provider	Instructor	Venue		Remark
1	2009	March	44	9	Yangon	MMA	Inaugural Program in Myanmar
2	2009	November	42	*	Yangon	MMA	* Refresher Course (facilitators self-funded visit)
3	2010	January	47	20	Yangon	MMA	
4	2010	March	48	10	Mandalay	MMA	
5	2010	June	42	14*	Yangon	MMA	* Instructors' Forum
6	2010	August	21	-	Yangon	YGH	Yangon General Hospital (1st Hospital Course)
7	2010	August	43	-	Yangon	MMC	
8	2010	October	-	14*	Yangon	MMA	* Instructors' Forum
9	2010	November	48	10	Mandalay	MMA	Inaugural Program in Northern Myanmar
10	2010	December	28	-	Yangon	NOGH	North Okalapa General Hospital (2nd Hospital)
11	2011	January	50	14* + 21	Yangon	MMC	* Supervisors' Forum, + Trauma Symposium
12	2011	March	44	-	Yangon	MMC	

- For the coming year 2011~2012, the following are propose programs (with international facilitators participation) are…
  - July~August 2011, Yangon : 2 local provider courses
  - December 2011, Mandalay : 2 local provider, 1 instructor courses
  - December 2011, Nay-pyi-daw : 1 local provider
- In addition, the PTC MM group will organize local provider courses in both Yangon and Mandalay independently.

Primary Trauma Care (Myanmar) proposed Organization Structure

Since the inauguration of the program in March 2009, there have been an active participation by a core team of local senior clinicians… Under the leadership of Professor Myint Thaung as Program Director for Myanmar, a mix group of specialists (Family Physicians, Orthopaedic & General Surgeons, Anaesthetists) have become the stalwart leaders to organize and plan each of the courses that we, the international facilitators have been to supervise and assists.



✍ James HB Kong

Symposium : Trauma 2011 19 January 2011

Severely injured victims presenting as trauma patients is a common and increasing problem of our modern society. Their needs, how to provide for them effectively is a challenge to healthcare workers throughout the many communities in different countries.

The initial treatment & stabilisation of trauma victims are critical and their outcome will improve significantly if treated appropriately within "the golden hour". Management of such patients is best achieved in a team approach where the members speak the same language.Training of all healthcare workers to enhance their skills is a cornerstone to providing effective trauma care.

The panelists will share their individual perspectives on how best to achieve the ideals of trauma care delivery ranging from the pre-hospital to the hospital base and the issues critical to a nation's needs and demands.

20 mins / each Speaker...
Followed by open discussions.

What trauma patients need...

1. Introducing the Scene:	**Sio Kei Kou, Orthopaedic Surgeon**
How to provide for them...	
2. Pre-Hospital & the ER	**Georgina Phillips, Emergency Physician**
3. Trauma at the Hospital	**James Kong, Surgeon**
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5. National Perspectives: Training etc.	**Michael Hollands, Surgeon**
Question & Answers... Panel Discussions	

Learning Objectives

- Presentation of the severely injured patient
- What is the Golden Hour?
- Pre-hospital & ER-Hospital Care
- Initial Treatment & Stabilisation
- Organisation of Trauma Care
- Trauma Team & Trauma Leader
- Speaking the same language
- Understand the Principles of Disaster Management System
- How to Triage?
- Trauma Education Program & Training
- Trauma Scores & Audit

The Trauma Symposium Panelists...

Sio-Kei KOU **FRCSE FCSHK FHKCOS FHKAM** is an orthopaedic surgeon in Hong Kong. He has worked as a Consultant Orthopaedic Surgeon in a public hospital as well as providing clinical leadership in the Ambulatory Services in the public hospital cluster level.

SK has taught as a Primary Trauma Care instructor in various difficult areas of Asia… Mongolia. His main interest in the management of orthopaedic trauma. ✍

Georgina Ann Phillips **FACEM** is a clinical lecturer at the University of Melbourne. She has worked in a university teaching and referral hospital in Melbourne for 15 years where she provides clinical leadership and teaching in the emergency department. As an experienced medical educator and Primary Trauma Care instructor, she has led PTC courses throughout the Pacific region as well as in Myanmar.

Georgina has also led emergency department development projects in East Timor and within Papua New Guinea, and is the Coordinator of International Programs at St. Vincent's Hospital, Melbourne as well as on the leadership committee of the International Emergency Medicine Special Interest Group in Australasia. She is an experienced emergency medicine researcher and sits on Research, Ethics and Public Health Committees in her professional capacity.. ✍

James HB Kong **FRCSE FRACS FCSHK FHKAM** is a plastic surgeon in HK. Born in Rangoon, he attended Barts with postgraduate training in UK & USA, and returned to Asia where he obtained his FRACS. He was a Consultant Surgeon until the outbreak of SARS in 2003, when he switched to be a health informatician.

He was the first *Director of Trauma* at the Pamela Youde Nethersole Eastern Hospital attending all critically injured patients and was responsible for coordinating the multi-disciplinary teams from AED, Anaesthesia, Surgery, Orthopaedic & Neurosurgery in the care for poly-trauma.

James returned to Myanmar, as *Chief Hospital Administrator* at the Pun Hlaing International Hospital in 2006 to train a local team and in 2008, witnessed Cyclone Nargis first-hand. Following this catastrophe, he spent time assisting with emergency relief and in 2009, with the support of the *Royal Australasian College of Surgeons* and a team of volunteers (friends), he initiated a collaboration with the *Myanmar Medical Association* to *train the trainers* to implement the Primary Trauma Care program. He is currently the Program Director of this Program. ✍

Tsun Woon Lee **FHKCA FANZCA FHKAM** has over 25 years of clinical experience in anaesthesia, intensive care and pain medicine. He has practiced in Hong Kong as well as in Australia. Prior to taking up full time medical administration, Dr. Lee was in charge of the anaesthesia and intensive care services of a tertiary public hospital in Hong Kong that was a designated trauma centre. He also has a keen interest in clinical teaching. He has been involved in the works of Primary Trauma Care Foundation since 2000.

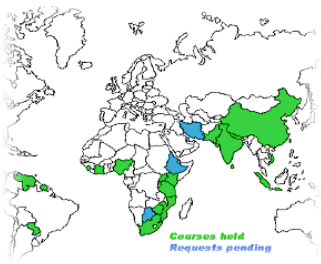
TW is currently *Hospital Chief Executive* of Pok Oi Hospital, a newly re-developed general hospital with capacity of 622 beds, in Hong Kong. He is also *Service Director* (Clinical & Ambulatory Care) for his cluster with responsibilities for ambulatory care and surgical stream of services. This cluster serves a population of approximately 1.1 million of which a high percentage are deprived new migrants. His current focus is the efficient use of resources to build up new services at his Hospital and to plan for a new Hospital in the area. ✍

Michael J Hollands **FACS FRACS** is a hepatobiliary and gastro-oesophageal surgeon at Westmead Hospital in Sydney, Australia. His interest in trauma developed as a result of a heavy trauma surgical workload.

He has been an instructor on the Australian EMST (ATLS) Program since 1990 and was Chairman of that program from 2000 until 2008. Michael is currently Region 16 Chief for the American College of Surgeons Committee on Trauma and represents Asia, Australia and the Pacific.

Michael is a member of the ATLS Sub-committee. In this role Michael has taught on the inaugural ATLS Courses in Thailand, Indonesia, Fiji, Malaysia and India. He also teaches on the DSTC (Definitive Surgical Trauma Care) Course.

Michael is currently Treasurer of the Royal Australasian College of Surgeons and is a member of its Executive Council.. ✍



TRAUMA is the second commonest cause of death in the income-generating age group worldwide. Most developing countries do not have the infra-structure to manage patients suffering from severe trauma. **Primary Trauma Care (PTC**) programme, established since 1997, was developed with the support of the **WHO** to train healthcare providers to prioritise and treat severely injured patients quickly and systematically using available local resources, thereby reducing death and disability. It is a ***2-day course*** that can be combined with a ***1-day instructor course*** to train local trainers.

With support from the international faculty and PTC Foundation (Oxford, UK; Registered Charity No: 1116071), responsibility is rapidly devolved to the local professionals.

The programme has today reached over 25 countries worldwide. The PTC Manual is available free on the internet and has been translated into 10 languages and also incorporated into the WHO publication 'Surgical Care at the District Hospital'. ✍

Introduction

Trauma is an increasingly significant health problem representing 16% of the world's disease burden. Every day, over 16 000 people worldwide die as a result of their injuries, and for every person who dies, several thousand more are injured, many of them with permanent disability. Over 90% of the burden of trauma related death and disability is borne by low and middle-income countries.

Providing appropriate care to severely injured patients is a challenge to healthcare workers throughout the developing world. These nations have very few resources available to improve care and consequentially new initiatives must be inexpensive. The Essential Trauma Care (EsTC) Project promotes inexpensive improvements in facility-based trauma care.

The results of the collaborative "Injury Prevention Project "of the Department of Health (Myanmar) in partnership with the World Health Organization (2007) has demonstrated that the incidence of trauma has increased significantly and is now the leading cause of morbidity and the second highest cause of mortality. Organized approaches to its prevention and treatment are needed. In terms of treatment, there are many low-cost improvements that could be made to enhance the care of injured persons.

The aim of this Symposium is to consider the care of injured patients within a proposed trauma system, starting at pre-hospital care. The place of the trauma team and disaster management will be addressed. Finally the importance of appropriate educational programs and the importance of data collection and audit will be considered. The panelists will share their individual perspectives on how best to achieve improvement of trauma care delivery at a hospital level and from a national perspective.

Introducing the Severely Injured Patient: Sio Kei Kou

Traffic accidents have emerged as the major cause of mortality and morbidity in young people. Much like the rest of the world this pattern is clearly evident in Myanmar. These victims frequently have multiple injuries, which necessitates a prompt and well-organized approach to resuscitation and subsequent definitive care.

The trimodal distribution of trauma deaths is an important concept. Understanding it allows doctors to focus their attention on specific clinical problems, which if left unattended may cause avoidable death or disability. This so-called "the golden hour" is a critical period where appropriate intervention in a severely injured patient may significantly affect their outcome.

Pre-hospital and Emergency Department Care: Georgina Phillips

In the trimodal distribution of trauma deaths, many deaths occur before reaching hospital. Many of these deaths could be avoided by appropriate public health measures such as speed limits, alcohol restrictions and seatbelts. When such interventions have been introduced in high-income countries, death and disability from road trauma has dramatically reduced.

A pre-hospital trauma system aims to deliver the right patient to the right hospital in the shortest time. Components of a pre-hospital system range from appropriate site triage, adequately trained personnel, sufficiently equipped transport vehicles and a standardised communication network. Available resources and local conditions will determine the complexity of a regional pre-hospital system, and the World Health Organisation (WHO, Pre-Hospital Trauma Care Systems, 2005) supplies guidelines on core components that should form the foundation of a system in any resource environment.

Emergency departments (ED) are the first point of care for ill and injured people of all ages, yet have been slow to develop globally. The practice of emergency medicine aims to provide the most skilled clinicians to care for the most complex patients in the most appropriate environment. In trauma, the ED 'Trauma Centre' provides 24hr trauma reception teams which then refer to specialist surgical and intensive care services.

There are three components of an ED trauma service. An accessible and well-equipped environment to receive critically injured patients and facilitate investigations and transfer is essential. An appropriate number of ED staff with trauma skills and knowledge is required to provide 24hr immediate care. ED systems such as triage, communication networks and information management are essential to bringing order amongst chaos and to ensure the smooth flow of patients. The effective development of clinical protocols may provide predictable care.

The WHO provides guidelines for essential trauma care according to available resources by focusing on an ABC (Airway, Breathing, Circulation) approach and listing essential requirements to ensure to safe initial treatment and stabilisation of trauma patients (WHO, Guidelines for Essential Trauma Care, 2004).

Hospital Care: James Kong

The initial management (treatment & stabilization) of severely injured is critical, as their outcome will improve significantly if treated appropriately within "the golden hour". The resuscitation of severely injured patients usually involves many personnel, and too often takes place in an environment of anxiety and confusion. A well-planned and organized approach to such patients is fundamental to optimal management.

Resuscitation implies a coordinated group of actions performed to secure the airway, support breathing and restore circulation. Survival after severe injury depends on promptly re-establishing adequate tissue oxygenation. Hence, critical time limitations apply to the successful performance of the elements of resuscitation. There is thus a need to assure that

the personnel and equipment needed for resuscitation are present and utilized in an optimal fashion. Appropriate pre-planning and coordination among care personnel assist achieving this goal for the injured patient. Such pre-planning and coordination involve equipment and supplies in the emergency area. However, more than anything else, they involve the organization of personnel as addressed by the concept of the Trauma Team.

The exact composition of the Trauma Team varies with local environment and staffing. However, a key element is organization, with pre-assigned roles for members of the trauma team and protocols to assure rapid assembly and efficient operation of the trauma team. In order to provide the optimum care, there is a need for team members of different disciplines to coordinate their efforts, speaking in the same language. This is best achieved through training all healthcare workers to adopt safe trauma care practice and language. The Primary Trauma Care Course, EMST (Early Management of Severe Trauma), and ATLS (Advanced Trauma Life Support) all provide robust training towards achieving this.

In the developed world there are designated trauma centres, albeit with different levels of capability, to manage severely injured patients. The geography, transport infrastructure, distribution of hospitals and the facilities & personnel available will affect the set up of such a system.

Mass Casualty Management: Tsun Woon Lee

Identifying one or more designated hospitals as trauma centers is the ideal approach to provide optimum care of the individuals who are severely injured.

A wider network is necessary when the number of casualties exceeds the capability of a single hospital. In this scenario a network of hospitals provides support so as not to overwhelm the individual hospital. When the scale of the event reaches disaster level, the capacity of a region or country may be overwhelmed. There may be disruption to other essential services e.g. electricity & water supply.

The causes of disasters may be very different. The general approach to their management is the same, namely prioritizing ABC (Airway, Breathing, Circulation). It is better to have a generic response system with different responses for different types of disaster then to have many different response plans. There will generally be medical as well as public health concerns. The medical concerns usually include: search and rescue, triage and initial stabilization, definitive care and evacuation. Public health concerns will include items like water food, sanitation, transportation, dealing with the press etc. The need to be prepared includes planning & training staff. They must be familiar with the disaster plan and be aware of the role they are expected to play. It is essential the disaster plan coordinate other emergency services, fire, police with clinical services. It is only through prior preparation, training and planning that disaster may be managed effectively.

Trauma –National Perspectives: Michael Hollands

Optimal trauma care relies on a systematic approach to care of the injured patient. In developing a national approach to trauma care 2 key areas need to be considered. The first is the resources available. This includes the geography, population demographics, national infrastructure and health care resources. It is also essential to develop a profile of injury relevant to Myanmar, for example how many injuries, what is their causation. You are already addressing this through your Accident Prevention Project in collaboration with WHO (World Health Organisation). The second is the trauma system, namely retrieval and triage, initial resuscitation, transfer where appropriate, definitive care and rehabilitation. We have already seen the role of the trauma team in ensuring delivery of appropriate care in a multi-disciplinary fashion.

In developing nations resources are frequently scarce and it is important to get the “best bang for your buck”. Doctors treating injured patients need to decide where in the trauma system they wish to utilise those valuable resources.

Two possible avenues are education and data collection.

There are many educational products available. Many are aimed at specific levels within the trauma system, for example PHTLS (Pre-hospital Trauma Life Support) is aimed specifically at pre-hospital personnel. Other courses are aimed at definitive surgical care or are specifically directed towards nursing staff. Some courses are more generic than others. The Primary Trauma Care Course (PTC) is valuable for not only doctors but also pre-hospital staff and nurses. ATLS is a doctor only course. Each has their advantages and disadvantages.

Data collection and quality control is essential. In the first place it provides a stimulus to constantly improve and to identify shortcomings. Measuring outcomes also provides hard data to demonstrate the validity of the work you do and is a powerful tool when remonstrating with government and its agencies for more resources. In short they need to see the benefits of what you are doing. Using a reproducible scoring system such as the revised trauma score accurately predicts potential mortality using scores based on respiratory rate, blood pressure and the Glascow Coma Scale. WHO is developing a Trauma Quality Improvement Program specifically for developing countries. It is well established in rural Thailand and in Sri Lanka and would be applicable to Myanmar. Importantly it requires few resources and is free.

Finally all nations are exposed to nature’s wrath as experienced in Myanmar with Cyclone Nargis of 2008 and as Australia is experiencing at present. A disaster management plan is essential and the personnel needed to enact it appropriately trained.All of these initiatives are cost effective and improve care but their ongoing success depends on local leadership and enthusiasm and at some point there must be younger doctors to carry the baton with the same enthusiasm as the current leaders have shown.

In conclusion improved trauma care saves lives and reduces disability. Importantly, it must also train the next generation. ✍