

Emergency Medicine development in Sri Lanka

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The tsunami in Sri Lanka in 2004 triggered the need for planned disaster management in Sri Lanka. It also highlighted the need for pro-active coordinated emergency responses by trained personnel at both local and national level. A decade ago, emergency response training in Sri Lanka for doctors working in emergency treatment units (ETU) and outpatient departments (OPDs) was rudimentary and ad-hoc. Many junior doctors worked unsupervised, with little senior backup or supervision resuscitating and stabilizing the critically ill who presented to the ETUs and OPDs. A prehospital care concept was virtually non-existent. There was no formal triage system. The pre-hospital care was mostly limited to a scoop-and-run service of volunteering tuk-tuk drivers.

Emergency medicine (EM) is a relatively new discipline, dealing with acute illness and injury of all sorts in the human being. The ETU is a core clinical unit of a hospital and the experience of patients attending the ETU significantly influences patient satisfaction and the public image of the hospital. Its function is to receive, triage, stabilise and provide emergency management to patients who present with a wide variety of critical, urgent and semi urgent conditions whether self or otherwise referred. The ETU also provides for the reception and management of disaster patients as part of its role within the disaster

plan of each region. In addition to standard treatment areas, some departments may require additional specifically designed areas to fulfil special roles, such as the management of paediatric, major trauma and psychiatric patients.

This perspective highlights some of the key steps in the development of EM as a specialty in Sri Lanka. It focuses the local organisations leading the change, the formal recognition of the specialty, the origin of the MD EM and the role of the ELC course.

The first preliminary care unit (PCU), a forerunner to the current ETU model, was set up in Sri Lanka in the mid 1990s with input from Dr Dhanapala Rodrigo¹ Other PCUs, and then ETUs, were established in the subsequent years.

The Sri Lankan Society of Critical Care and Emergency Medicine (SSCCEM)², was founded in 2002 by a group of multi-disciplinary medical professionals including anaesthetists, surgeons, physicians, paediatricians, obstetricians and radiologists but their initial focus at the time was critical care development. The SSCCEM held its first annual sessions in 2007, with a theme of EM in Kandy. The International Federation for Emergency Medicine (IFEM) vice-president was the chief guest, supported by the IFEM concept to expand EM worldwide.³ The SSCCEM earned affiliate status of IFEM in the same year. The SSCCEM is the forefront organisation in Sri Lanka for creating awareness for the needs of establishing EM and incorporation of EM teaching and training. The SSCCEM continues to promote the best practices of EM^{4,5}, through conducting regular face-to-face conferences, courses, CME programs, and establishment of online learning communities and offering distant learning activities. This is with the assistance of Australian and American Emergency Physicians. A recent international Conference in Colombo was co-hosted by SSCCEM, attracting 400 international delegates and speakers⁶.

The Ministry of Health of Sri Lanka, considering the case made by the SSCCEM and by members of the Critical Care Forum of Sri Lanka⁷ recognized EM as a separate specialty to be established in Sri Lanka in 2011.

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Work by these organisations and others contributed to the passage of the national accident and emergency policy by parliament in 2015. The outline of the future direction of patient care under the policy is included as Figure 1⁸. As the biggest employer of doctors in Sri Lanka, this made EM an attractive option for training for Sri Lankan young doctors.

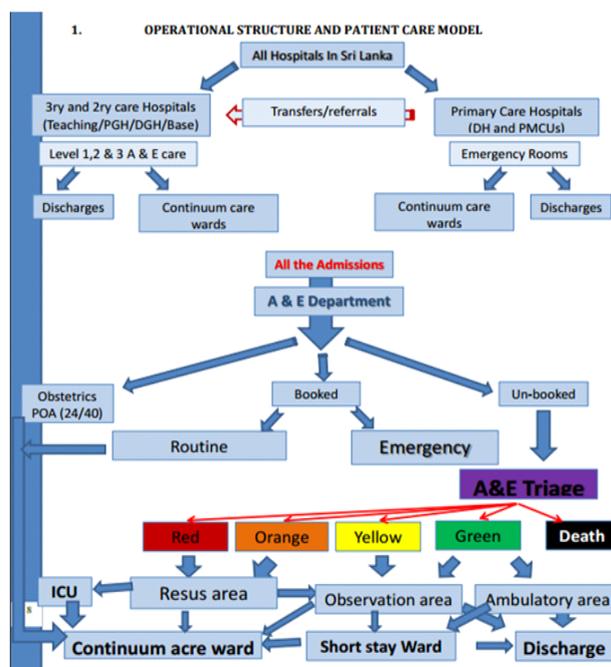


Figure 1.

In order to initiate this new specialist training program, the Post Graduate Institute of Medicine (PGIM), University of Colombo Sri Lanka, formulated a Board of Study for Multi-disciplinary study courses in 2008 (MDSC). A specialty board for Emergency Medicine was created in the year 2009 through this MDSC. This board took the initiative to develop a comprehensive 6 year training curriculum. The MD EM curriculum was prepared conforming to the current regulations of the University Grants Commission and core curriculum drafted by the IFEM. Extensive consultation with Sri Lankan specialty bodies and international experts was undertaken.

The MD EM curriculum of the PGIM was developed with the assistance of IFEM and conformed to the core curriculum published by them. It is a competence based and continuously assessed program with two 'bar' examinations. The EM full curriculum is available from the PGIM website⁹. The PGIM is the sole institution responsible for postgraduate medical education in Sri Lanka¹⁰.

The established EM training programmes are conducted in the emergency department (ED) and on rotations. The rotations address two aspects; (a) the training requirements of the EM trainee and (b) the service expectations of the rotation. Each institution has its own balance to match the competing service demands.

The PGIM recruited its first batch of students for MD EM training program in 2013 and they have successfully completed MD Part 2 (exit) examination on the 23rd of September 2016. They now need a minimum of a further 2 years of training as a senior registrar (minimum of 1 year in a recognised overseas centre) for board certification as a specialist emergency physician. The aim of this process was to ultimately produce "a lead clinician capable of providing medical care in any emergency situation, independent of the location, and effectively lead and safely manage common acute problems, with confidence, and competent to make decisions under pressure of time to save lives, even in a mass scale, whilst preventing further injury"⁹. They will be the first specialists of EM in this country once board certified. They should now be considered as the future guardians of EM in Sri Lanka.

As part of their aim to improve emergency care for all, the SSCCEM also initiated an Emergency Life Care (ELC) training program, a modified course suitable for Sri Lanka, based on the principles of the Emergency Life Support (ELS) course of Australia¹¹. This is available to all medical officers in Sri Lanka regardless of training pathway and is aimed at the medical officer who has limited support and sees critically ill patients infrequently.

EM is a specialty where the classical medical textbook teaching of: "take an extensive history; examine the patient thoroughly; develop a list of differential diagnoses; order and interpret some tests; make a diagnosis; and only then start treating the patient" is inappropriate. Patients present to an ED with a set of symptoms, not a diagnosis. For example, they will say they have chest pain, not, "I have a pulmonary embolus causing haemodynamic instability." To manage a patient who is unconscious, blue and with an obstructed airway requires an approach that focuses on the immediate patient needs, not one that focuses solely on history. Quite often, simple interventions will prove life saving, for instance a simple airway manoeuvre in a patient who has an obstructed airway post seizure.

The ELS course, and its Sri Lankan modification (ELC) is designed to provide medical officers with a structured simple approach to a critically ill patient that is readily recalled under stressful situations. A standardised approach was developed to the initial assessment and management of a critically ill patient i.e. "the blueprint".

The blueprint follows the approach of “what will kill quickest”, if a problem is identified, fix it immediately and if anything changes go back to the beginning similar to the approach for advanced paediatric life support (APLS)¹². Patients are triaged, and positioned appropriately for their condition. Airway, breathing, circulation and disability are assessed and managed. Whatever has not been measured or monitored up to that point is initiated. A directed history and examination are performed, time critical interventions are initiated e.g. reperfusion in STEMI, and the patient transferred to definitive care with appropriate handover.

The course consists of a series of lectures and skill stations delivered over 2 days, that are designed to reinforce the overall approach to the critically ill patient. The lectures and skill stations are given by emergency physicians and are all integrated to reinforce “the blueprint”. The lectures include the introductory lecture, chest pain, shortness of breath, seizures, shock, envenomation and poisonings. The envenomation and poisoning lectures have been tailored to reflect local Sri Lankan conditions with input from Sri Lankan clinicians. The skill stations are initial stabilisation, introductory and difficult intubations, ACLS, intravenous access, CXR and ECG interpretation and the sick child. Each skill station is run as a small group of 3 candidates allowing for individual attention from an emergency specialist.

Feedback at the end of each course indicates that candidates feel more comfortable in their approach and management of critically ill patients and anecdotal feedback concerning individual patient management after the course reflect positive patient outcomes.

Initial establishment of the course was funded via Emergency Life Support (ELS) international and from the Australasian College for Emergency Medicine (ACEM)¹³. This funding was utilized for allowing 2 senior members of SSCCEM to travel to Australia to attend an ELS course and to meet senior members of ACEM. This funding was also used to facilitate the pilot ELC course and equipment purchase.¹⁴ The first ELC Sri Lanka course was conducted at the University of Peradeniya in 2008. ELC courses are governed by the local SSCCEM managing committee with transparency on its financial management and training allocation. The ELC courses have since held twice per year in multiple locations including Kandy, Colombo, Galle, Batticaloa and Jaffna.

A core number of Sri Lankan faculty completed both the provider course (initially run by Australian Faculty) and then acted as course faculty (with supervision and encouragement by Australian Faculty). This commitment with graded transfer of expertise followed for the next 3

years. International faculty provide ongoing assistance on an ongoing basis.

All MD EM candidates are required to complete this course, facilitating the dissemination of a standardised approach to a critically ill patient throughout the country. The SSCCEM have nominated a steering committee for the ELC course in Sri Lanka with aims to increase the local course delivery with the emphasis on tailoring the content to Sri Lankan local resources. Ongoing delivery of the course will eventually be by local instructors with overall local governance.

EM development in Sri Lanka was neither a top-down project, nor was a project with a comprehensive central plan. All essential requirements for its establishment had to be innovated, i.e. community interest, professional interest, government interest and a mechanism of training in the absence of a single board certified specialist in EM in the country. These came together via five independent activities, namely: (a) the establishment of the ‘ELC’ course; (b) professional and public education mainly conducted by the SSCCEM; (c) creation of a Board of Study for EM at the PGIM; (d) the capacity building component of the post-tsunami Health for the South Project at Teaching Hospital Karapitiya in Galle¹⁵; and finally (e) recognition of EM as a specialty by the Government.

The tsunami was the major impetus that brought the importance of the ‘golden hour’ of resuscitation to light. But even following the tsunami ‘spring board’, it took nearly 5 years for the drafting of a curriculum of training and its implementation has taken another 7 years to produce the first emergency physician. A major driving force for the development of EM in Sri Lanka was the personal pro bono efforts and perseverance of a small group of likeminded, sympathetic and committed people. Sri Lankans are lucky that the empathic eyes of those committed human beings persisted for a significant length of time and to date. There is no short cut or a “silver bullet” for establishing EM as a specialty in a developing country.

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