



# IEMNet News

Newsletter of the International Emergency Medicine Network of ACEM



September 2015, Volume1: Issue 1

# NEPAL

## The road to recovery

<b>Inside This Issue</b>	<b>5</b> Message from the Chair	<b>10</b> <b>FIJI</b> Emergency Medicine in Fiji: An Australian Emergency Physician's View	<b>18</b> <b>SOLOMON ISLANDS</b> A Collaboration Between DFAT and ACEM	<b>24</b> <b>MYANMAR</b> The Myanmar Emergency Medicine Development Program	<b>40</b> <b>NEPAL</b> A Running Account of Emergency Medicine Response to the Earthquake in Nepal	<b>53</b> <b>SOUTH AFRICA</b> Emergency Trauma: The South African Experience
--------------------------	------------------------------------	--	--	---	--	--

# CONTENTS



**IN THIS ISSUE** 4  
*Chris Curry*

**MESSAGE FROM THE CHAIR**  
**International Emergency**  
**Medicine Committee**  
*Gerard O'Reilly* 5



**TONGA** 8  
Making Progress with the  
ACEM Emergency Medicine  
Certificate  
*Owen Doran*



**FIJI** 10  
Emergency Medicine in Fiji:  
An Australian Emergency  
Physician's View  
*John Holmes*

Emergency Care in Fiji:  
An Update, June 2015  
*Anne Creaton* 15



**SOLOMON ISLANDS** 18  
A Collaboration Between  
DFAT and ACEM  
*Georgina Phillips*



**PAPUA NEW GUINEA** 20  
An Update, June 2015  
*Colin Banks*



**TIMOR LESTE** 22  
Emergency Life Support (ELSi)  
Goes Further  
*Phil Hungerford*



**MYANMAR** 24  
The Myanmar Emergency  
Medicine Development  
Program: An Update,  
June 2015  
*Kerry Hoggett*



Emergency Nursing in  
Myanmar: An Update,  
June 2015  
*Lynette Cheverall* 25

Pre-Hospital Care in  
Myanmar: An Update,  
June 2015  
*Nigel Klein* 27



**NEPAL** 29  
 The First Emergency  
 Physicians from B.P. Koirala  
 Institute of Health Sciences  
*Chris Curry*

Advancing Emergency  
 Medicine Training in Nepal:  
 B.P. Koirala Institute of  
 Health Sciences, Dharan  
*Mel Venn* 29



The 3rd Nepal Emergency  
 Medicine International  
 Conference (3rd NEMIC)  
*Chris Curry* 34

Emergency Nursing Training  
 in Nepal - Building an  
 Essential Layer in Emergency  
 Departments After the  
 Earthquakes  
*Brian O'Connell* 35



A Running Account of  
 Emergency Medicine Response  
 to the Earthquake in Nepal:  
 25th April to 6th May  
*Chris Curry* 40

Earthquake! – from  
 Namche Bazaar  
*Mel Venn* 40

Earthquake! – from  
 Tengboche  
*Gaynor Prince* 45



**IRAQ** 50  
 The Iraqi Paediatric Life  
 Support Course  
*Abdul-Razaq Musa*



**SOUTH AFRICA** 53  
 Emergency Trauma:  
 The South African Experience  
*Kevin Ostrowski*

An Emergency Medicine  
 Opportunity in Kwa-Zulu  
 Natal  
*Sandy Inglis* 55



**ICELAND** 58  
 Developments in Iceland:  
 Assisted by Australia and  
 New Zealand  
*Hilmar Kjartansson*



**CALENDAR OF EVENTS** 60

# In this Issue

---

## A WORD FROM OUR EDITOR

---



“There is a great deal of work to do to bring emergency care to a level of recognition comparable to surgery, internal medicine and other more established areas of care.”

This is the first issue of International Emergency Medicine Network News (IEMNet News), presenting news from the International Emergency Medicine Network of ACEM. The new name and format is brought about by the retiring of the International Emergency Medicine Special Interest Group (IEMSIG) and the IEMSIG Newsletter, following a decade of development since inception in 2004. We embark upon the second decade of formal ACEM engagement with International Emergency Medicine (IEM) with an IEM Committee and an IEM Network.

IEMNet News will be an opportunity for fellows and advanced trainees to chronicle activities without the formalities and rigors required of a medical journal. Personal stories and perspectives are encouraged. The hope is that IEMNet News will foster interest and engagement in the development of emergency medicine beyond our shores, particularly in less developed environments in the Australasian sphere of interest.

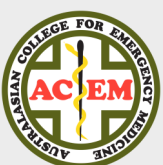
This issue chronicles a wide range of activities from Tonga in the east to Iceland in the west. The range and scope of engagements by ACEM fellows and trainees continues to expand, from the delivery of short courses to full-time employment. The Emergency Life Support (ELS) course goes further, and the ACEM Certificate and Diploma are assisting developments. Trainees on new emergency medicine programs continue to grow, numbers of new graduates increase, and young emergency physicians in the new specialty expand their influence. Growth is facilitating the fostering of emergency nurse training and pre-hospital care training. The importance of building local capacity to deliver acute care is punctuated by occasional disasters.

While emergency medicine continues an inexorable expansion, it is worth noting that three quarters of the countries represented at the UN do not yet formally recognize emergency medicine as a specialty. There is a great deal of work to do to bring emergency care to a level of recognition comparable to surgery, internal medicine and other more established areas of care.

In this second decade, we hope that contributions to IEMNet News will continue to inspire efforts towards improving the delivery of emergency care worldwide.

*Chris Curry, Editor*

[chris@chriscurry.com.au](mailto:chris@chriscurry.com.au)



# Message from the Chair

## International Emergency Medicine Committee

On 29 May 2015, the newly established International Emergency Medicine Committee (IEMC) of ACEM held its first meeting. As far as meetings go, this was a milestone event in the evolution of ACEM's embrace of the many and growing number of International Emergency Medicine (IEM) activities being conducted with, or by, ACEM fellows and trainees.

In many ways it was a forum for setting the scene: what has been achieved so far, what are the major aspects of IEM in which ACEM is involved right now, and what are the plans for the future? At this point, these latter "plans" focused on ensuring that current and ongoing activities were on track. Longer term and strategic goals will take centre stage down the track.

As it was, the meeting went for six hours! The following activities received particular attention:

- The Committee Terms of Reference, with particular attention to the responsibilities of the Committee:

Where international health matters relate to emergency medicine in developing countries, the committee shall:

**1** Be a repository of information that includes resources, networking, mentoring and career advice regarding international emergency medicine

**2** Be a liaison to ACEM and other relevant institutions regarding international emergency medicine issues drawing on IEMC members' expertise

**3** Assist in the establishment of emergency medicine training through facilitating:

**3a** Relevant educational activities in developing countries

**3b** Support for emergency doctors based in developing countries to enhance their skills in country and abroad, and

**3c** The development of sister hospital relationships with Australasian hospitals

**4** Build Australasian emergency physician activities in developing countries by facilitating opportunities for ACEM Fellows and trainees

**5** Facilitate and encourage the inclusion of FACEMs who are resident in overseas development posts as members of the IEMC



“The IEM Network. This is the new iteration of what was the IEMSIG (International Emergency Medicine Special Interest Group), the main forum for IEM information sharing...”

Where international health matters relate to emergency medicine in developing countries, the committee shall:

6 Where appropriate, advise on and facilitate the creation of training posts for ACEM advanced trainees in international emergency medicine

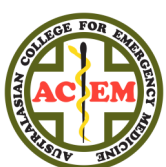
7 Build awareness of international emergency medicine issues across ACEM, other relevant institutions and the wider community through presentations, publications and events on international emergency medicine

8 Establish the criteria by which projects, grants and scholarships will be assessed. These criteria will be aligned to the goals of the ACEM Foundation with regard to building emergency medicine capacity in developing countries

9 Oversee applications for funding and make recommendations to the ACEM Foundation regarding international emergency medicine projects, scholarships and grants

10 Promote and support the fund-raising activities of the ACEM Foundation

- The reporting lines of the Committee, which currently includes the Council of Advocacy, Policy and Practice (CAPP) with strong, and likely increasing linkages with ACEM Foundation (see below for Foundation-funded awards)
- How the responsibilities of the IEMC match the overall ACEM Strategic Plan, including: Education, Member Support, Advocacy, Standards, Awareness and College Operations. Advocacy (IEM), for example, was identified as a key strategic area for which there was considerable overlap with the IEMC.
- The IEM Network. This is the new iteration of what was the IEMSIG (International Emergency Medicine Special Interest Group), the main forum for IEM information-sharing, including through the IEMSIG Newsletter. In recognition of the integral role of non-ACEM members (e.g. emergency nurses) in delivering IEM programs, it was established that the IEMNet would now be open to both ACEM members and others interested in international emergency care.
- The International Scholarship. This is the recurrent award, funded by ACEM Foundation on the advice of the IEMC, by which emergency medicine representatives from developing countries are able to attend the ACEM Annual Scientific Meeting. All costs are covered by the grant. Considerable discussion was given to further developing the objective scoring system, and mechanisms to avoid any potential conflicts of interest.



---

## Members of IEMC:

Gerard O'Reilly (Chair)

Colin Banks

George Braitberg

Ngairé Caruso

Megan Cox

Anne Creaton

Chris Curry

Sandy Inglis

Tony Joseph

John Kennedy

Georgina Phillips

Bishan Rajapakse

Sean Scott

Rose Skalicky

Alan Tankel

Brady Tassicker

Gina Watkins

Matthew Wright

Sam Denny

---

- The International Development Fund. Now in its fifth year, the International Development Fund Grant is, like the International Scholarship, awarded by the ACEM Foundation on the advice of the IEMC. Currently, up to AUD\$30,000 is available for a project or projects (continued) to be delivered to improve the capacity of developing countries to deliver emergency care. Previously established conditions, selection criteria and scoring mechanisms were revisited.
- The IEMC, through the dedication of a working group, is looking to finalise guidelines to facilitate the approval by the Accreditation Subcommittee of IEM Special Skills placements for advanced trainees. It is important that IEM work is, where appropriate, recognised as an important skillset, especially as its practice becomes progressively more globalised.
- Effective IEM work requires effective long-term partnerships. ACEM has established such a partnership with Australian Volunteers International, including in PNG and Myanmar. The importance of fostering other partnerships was discussed, including government bodies, other specialist colleges and non-ACEM practitioners of international emergency care.
- For the remainder of 2015, local IEM events of interest to the IEMC and the IEM Network were highlighted, including:
  - a. Alfred International Emergency Care Conference and Workshop, Melbourne, 24 to 26 August 2015
  - b. IEM sessions and dinner at ACEM Annual Scientific Meeting, Brisbane, 22 to 26 November 2015

And these were just some of the big-ticket items on the agenda! To meet its responsibilities, and the tasks generated from its first meeting, the IEMC is drawing on the expertise of firstly its members, and secondly, the wider IEM Network. Dedicated Working Group tasks and membership are being identified.

It is clear that the IEMC has little opportunity to focus upon the delivery of specific in-country programs. To be effective, the Committee needs to maintain a bird's eye strategic view on how best to maximise program effectiveness and ACEM support across multiple activities and initiatives, all intended to improve the capacity of developing countries to deliver quality emergency care.

Best wishes with your efforts to support international emergency medicine!

*Gerard O'Reilly*

[oreillygerard@hotmail.com](mailto:oreillygerard@hotmail.com)



# TONGA

## Making Progress with the ACEM Emergency Medicine Certificate

Owen Doran

[OwenD@adhb.govt.nz](mailto:OwenD@adhb.govt.nz)

The ACEM e-Bulletin of 29th May 2015 carried the following story:

### A WORLD APART

*Dr Owen Doran from New Zealand and Dr Mele Pomale from Tonga discuss how the ACEM Emergency Medicine Certificate (EMC) is helping to improve emergency medicine in Tonga.*

When Dr Mele Pomale first tried emergency medicine she hated it! At that time the specialty was nascent in her homeland of Tonga and her initial experience left her with little interest in whether it would grow any further. Fast forward to a few years later and Mele is a candidate of the Emergency Medicine Certificate (EMC), facing challenges every day in the emergency department and loving it.

"Emergency medicine is still in its early stages in Tonga and it's still really challenging, but now I really enjoy it," she said.

Mele is one of five Tongan candidates completing her EMC thanks to the supervision of New Zealand Fellow of ACEM (FACEM) Dr Owen Doran. After being involved with the Vaiola Hospital emergency department redesign and upgrade, Owen felt he wanted to do even more to improve emergency medicine in Tonga. So he added the title of Emergency Medicine Certificate and Diploma supervisor to his already impressive list of credentials.

"The students here are so dedicated and devoted to what they do, it seems that what we do is so little in comparison," Owen said.

And the positive effects of the training are already being seen in Vaiola Hospital, and not just in the emergency department (ED).

"When I started work here, there wasn't really a formal management of processes in the ED and now there is," Mele said. "When we call our seniors from various departments they now respect our decisions and our diagnosis of patients."

Those formal processes now involve a program of triage at the front desk, which works to identify critical patients and make sure they are seen at higher acuity departments of the hospital. There has also been upskilling with other doctors and the ED nurses.

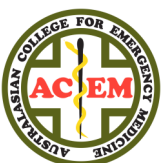
"In Tonga the emergency doctors have to run around to get stuff done and we have to wait for a long time for any results," Mele said, "I cannot emphasise enough the number of differences between New Zealand and Tongan EDs, there are so many things."

"They are seeing the same amount of patients as us a day, and have about a quarter of the staff to do it with a lot less resources as well," clarifies Owen.

And whilst emergency medicine in Tonga is still being established, thanks to Owen Doran and his team, it has already come a long way.

"Thanks to the ACEM course we recognise and treat some of the cases and get the department involved as soon as possible," Mele said.

<https://www.acem.org.au/About-ACEM/Inside-ACEM/A-world-apart.aspx>







### ***Tonga: a world apart***

Most of the work setting up the EMC program in Tonga was accomplished by Mike Sheperd (paediatric emergency physician at Starship Children's Hospital in Auckland), who has had involvement in a number of projects in the Pacific, especially from a paediatrics standpoint.

"A few years ago a new ED was built in Tonga (with Japanese funding) and I got on board as part of a team with Mike helping with the transition. We made two or three visits to Tonga yearly to support the department, teaching, establishing triage and reaching out to the rest of the hospital. Retention of medical staff was a problem there, and as well as up-skilling, the EMC has been seen as a pathway to keep some of the ED doctors in the department. Hopefully some of the doctors will go on to complete the diploma. Supervision has been difficult, we have spent some time in Tonga as a team with direct supervision, and also attempt regular skype sessions (for patient discussions and problem solving). The candidates have all been funded (flights only, unfortunately) for a four week attachment in Auckland to get a feel for how things are done here (which will hopefully help with knowledge and passing the exam)".

"We have been humbled by the response from the team in Tonga, who have been very engaged in the EMC and in other initiatives we have suggested".



---

## Emergency Medicine in Fiji - An Australian Emergency Physician's View

*John Holmes*

[docjohnholmes@hotmail.com](mailto:docjohnholmes@hotmail.com)

---

In 2014 I was privileged to spend three months working in Fiji, arriving at the end of March just as a major dengue epidemic was beginning to subside. My primary role was to help train and mentor the local trainees in the recently established Master of Emergency Medicine program.

### BACKGROUND

Fiji comprises an archipelago of around 400 islands with a local population of approximately 850,000, most of whom live on the two largest islands, Viti Levu and Vanua Levu. The central areas are dense tropical rain forest and most habitation and sugar cane plantations are concentrated in the coastal areas. The capital Suva still retains some of its former colonial charm. The other main towns are Nadi with the international airport, the sugar cane town of Lautoka on the west coast and Labasa on Vanua Levu.

Despite the popular perception of a tropical paradise, Fiji is nevertheless a low income country with all the problems faced by a developing nation, particularly within its health system. The majority of Fijians are poor. The population is divided between Indian, Indo-Fijian and Melanesian Fijians with minorities from other parts of the Pacific. There is a sizeable expatriate community of business people, professionals, academics and aid workers.

Obesity, especially amongst Melanesian Fijians, is widespread. The diet is heavily loaded with starches and fatty foods. All food apart from fresh produce in the markets is expensive and good meat is particularly hard to find.

Religion is very important and permeates everyday life including in the public hospitals. Most Fijians are evangelical Christian or Methodist. There are many churches and Fiji virtually closes down on Sundays. Most of the Indian population is Hindu and there is also a sizeable Muslim population. The undoubted second "religion" of rugby union dominates every aspect of Fijian life.

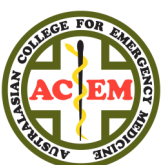
"Fijian time" is joked about but is a reality, even regrettably on occasions in emergency medical situations.

### MEDICAL ISSUES IN FIJI

#### 1. COMMUNICABLE DISEASES

Being a tropical country, the big five communicable diseases in Fiji are dengue, typhoid, infective gastroenteritis, leptospirosis and filariasis. Tuberculosis is also fairly prevalent. Thankfully there is no malaria.

There are episodic breakouts of dengue in Fiji and the recent epidemic created huge pressures on an already overburdened health system. The Ministry of Health eventually put public health awareness measures in place but unfortunately mosquito eradication programs were patchy. Fijian doctors are amongst the worlds most experienced with managing dengue and have found that a patient can usually be discharged home safely after intravenous rehydration despite haematological parameters that would frighten western doctors.



Paradoxically, hospitals are dangerous places in a dengue epidemic, given the concentration of infected patients in a confined space and *Aedes aegypti* being indoors, daytime feeding mosquito. To counteract this, the hospitals set up “Dengue Tents” outdoors, where suspected dengue patients were triaged, tested and treated. Despite precautions many hospital staff became infected in the recent epidemic, putting even greater pressure on the health system. One certainly got used to regularly applying 80% DEET.



***Dengue Tent, Lautoka***

Patients with sepsis are frequently treated in the emergency departments (ED) and it is not unusual for such patients to be managed in the ED for long periods of time, even if ventilated or with inotrope infusions.

## **2. NON COMMUNICABLE DISEASES**

There is a huge burden on health due to coronary artery disease, rheumatic valve disease, renal diseases and diabetes.

Chronic renal failure is common and even young patients have chronically elevated creatinines. Dialysis is only available privately and is far too expensive for the vast majority of the population.

Diabetes is a major problem with an estimated prevalence of 30%. Type 1 is prevalent in the Indian population and Type 2 in the Fijian and is often insulin dependent. This is undoubtedly related to diet and obesity. Both forms of diabetes have aggressive complications of peripheral vascular disease, cardiac disease, renal failure and eye disease. An extremely common problem in Fiji is the septic diabetic foot and several cases a week are seen in the ED requiring amputation.

Asthma is also very prevalent and overall its management can be less than optimal. “Asthma stations” are traditionally located near the ED and patients will simply turn up and receive a couple of doses of nebulised salbutamol and then go home without being registered or seen by a doctor. Even those seen medically may be given a dose of aminophylline and discharged home. The consequence can be unplanned re-presentations of asthmatics and also asthma related deaths. The ED doctors in Suva are well up to date with modern asthma management and have taken the lead in improving asthma care throughout the country.

Cardiovascular disease is extremely common, probably due to the prevalence of diabetes and obesity. Cigarette smoking is an issue though not as big a problem as may be expected. Acute coronary syndromes in relatively young patients are common. There is little specific therapy. Thrombolysis with streptokinase has recently been introduced to EDs. As yet there is no interventional cardiology. A fly in – fly out America team performs diagnostic angiographies for a fortnight each year, but subsequent management is problematical as few Fijians can afford to travel to Australia or New Zealand for coronary artery surgery or stents.



(CONTINUED)

### 3. TRAUMA

Trauma is a large burden on the health system. Roads and vehicles are poor and industrial safety is poorly regulated. Although superficially a friendly and safe country, Fiji has an undercurrent of interpersonal violence, including a significant prevalence of domestic violence. Data were presented at grand rounds in which 27% of Fijian women reported that their first sexual experience was a consequence of sexual violence.

#### THE FIJIAN HEALTH SYSTEM

The health system is controlled by the bureaucracy of the Department of Health, which imposes a sometimes heavy handed, top down approach to governance. This means that all purchasing decisions must be approved through a centralised complicated ordering and tendering process that aims to achieve the lowest possible price. This results in long delays and often inferior products being acquired. For example pharmaceuticals sourced from Eastern Europe and Asia are often not bioequivalent to standard brands. There is also limited forward planning so shortages of pathology reagents, radiology chemicals and drugs are frequent. Whilst I was in Fiji midazolam was unavailable for more than a week and for a while we ran out of 20 and 23 gauge cannulae and needles at the Colonial War Memorial Hospital (CWMH). On one occasion CWMH ran out of aspirin. Certain drugs, disposables and some items of equipment are only available as donations.

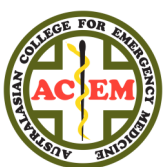
The CWMH is the largest hospital in the country, with other district hospitals in Lautoka and Labasa. Small hospitals exist in a few other towns. There is a private hospital in Suva but this provides only a limited range of diagnosis and treatment. Non-urban areas are serviced by nurse-led health clinics.

Prehospital infrastructure has had limited development. A few general practices exist in the major centres but do not appear to be well integrated into the overall health system. Ambulances are either private or run by the major hospitals and are little more than basic transport vehicles. Waiting times for ambulances can be excessive. This was illustrated when I was in Suva. A bus crashed and rolled down an embankment and the majority of casualties, including the most seriously injured, arrived at the hospital in the back of private cars and trucks.

The medical workforce is growing but most specialties have limited representation or are absent, especially outside the main towns. In Suva there are a few orthopaedic surgeons, one facio-maxillary surgeon and one neurosurgeon. There are no interventional cardiologists, while a Fijian cardiologist is currently training in Australia. The health system is supported by expatriate specialists from around the world, making for a vibrant multicultural medical workforce.

#### EMERGENCY MEDICINE IN FIJI

Against this background it is perhaps remarkable that emergency medicine is beginning to develop. This is largely due to the dedicated work of Anne Creaton, a British born Australasian trained emergency physician who has now been in Fiji for almost three years and continues to be the main driving force in advocating for emergency medicine and in training and mentoring Fijian emergency doctors. It is due to her that a Master's degree in



Emergency Medicine has been inaugurated under the auspices of the Fijian National University.

Implementing a new model of care in developing countries will be unsuccessful unless tailored to a country's local conditions and culture. This is especially true of emergency medicine whose rationale is the provision of equitable and efficient access to acute and definitive treatment. As in most developing countries, access to the health system in Fiji is influenced by local cultural and geographical factors. There exists a mistrust of 'western' medicine and many Fijians will consult their local faith healers and use traditional remedies for several days before attending a hospital or health clinic. One could argue that this no different to westerners' use of Google Doctor and "alternative" medicine. There is an amazing stoicism in Fijians who will often put up with pain and other symptoms without complaint before seeking care. People living outside the towns may be several days' travel from a healthcare facility. These factors combine to make late presentation of illness quite common and it is challenging to deal with patients with malignancies and sepsis who if seen earlier may have had much better outcomes.

Fijian hospitals can be confronting. I spent time working in the EDs at the three major hospitals in Lautoka, Labasa and Suva and many things were common to all of them. Access block to beds for admission is common, as is overcrowding, with patients accommodated in every available corridor. Patients may spend up to several days in the EDs waiting for admission. Many basics of sanitation and general care are absent. Patients remain in their own clothes irrespective of how sick they may be. There may be shortages of basic medical consumables such as sterile dressings and bandages.

## **LAUTOKA**

At Lautoka the 'A&E' was old and run-down. The actual ED was a single small room with four beds. Outside was a small corridor that was commonly filled with patients on trolleys. There was a separate general outpatients and minor injuries section. Patients often waited several hours to be seen and many had to stand while waiting.

Apart from two doctors who were part of the new emergency medicine training program, the rest of the emergency doctors had no formal emergency medicine training. Some had graduated in Russia, Eastern Europe or Asia and had a range of competencies and knowledge. There were also limitations in medical governance of emergency services.

Nursing administration was dynamic and enthusiastic. The Matron overseeing nursing education took a personal interest in the ED and it was a delight for me to actively engage in nurses' teaching.

A new ED is currently under construction and is planned to be complete by the end of 2015. This should be an enormous and necessary improvement and will hopefully be associated with other improvements that would facilitate the training of young emergency physicians in western Fiji.

## **LABASA**

Labasa is on Vanua Levu. The hospital was built by a Korean company and the ED is designed along familiar lines. There are some very enthusiastic nurses and doctors but they suffer from professional isolation and a lack of basic supplies and equipment.



# FIJI

(CONTINUED) It was at Labasa that I watched a 37 year old father of four die from his anterior infarct. For ST segment elevation myocardial infarctions (STEMI), apart from aspirin and heparin, thrombolysis with streptokinase is the only acute intervention currently available, but it was out of stock that day.



*Resusc, 'A&E', Labasa*

## COLONIAL WAR MEMORIAL HOSPITAL IN SUVA

The Colonial War Memorial Hospital in the capital Suva is Fiji's only major hospital and is a large, rambling complex reminiscent of the post-war repatriation hospitals in Australia. The ED is often hectic and overcrowded.

The emergency doctors are very impressive. The ED trainees are unbelievably competent and can best be described as sponges for knowledge.

The single major challenge is access block. Severely ill patients may wait in hot, noisy and overcrowded conditions in the ED for over a week.

## EMERGENCY MEDICINE TRAINING IN FIJI

A Master's degree serves as the specialist qualification in Fiji. The young Fijian emergency



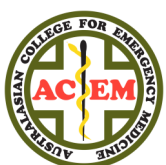
*Overcrowding, Colonial War Memorial Hospital, Suva*

medicine registrars who have embarked on the newly inaugurated Master of Emergency Medicine are highly motivated, extremely hard working and bright. Because they are exposed so frequently to severely sick patients, their diagnostic and practical skills outstrip those of most trainees in Australasia. Anne Creaton has developed a structured program for their training and regular use is made of video-conferencing through Google Hangouts to involve those trainees working in Lautoka and Labasa.

These trainees are innovative and show tremendous initiative. One has created a public health program to integrate and improve asthma management throughout the community, primary care and hospitals. This has included representations to the Ministry of Health. Such initiatives demonstrate both to the established specialties and to the government the positive impact that EM can have in a developing health system.

## VISITING DOCTORS WORKING IN FIJI

Fiji's young practitioners will benefit from ongoing training and mentoring by visiting experienced emergency physicians. Working in Fiji can be confronting but the rewards are great. Fijians are



welcoming of visitors and many medical students and junior doctors have gained invaluable experience from elective placements. An ACEM advanced trainee would gain immeasurably from a few months there.

If planning to go, it is well to remember that the Fijian Indian led civil service is legendary. It is necessary to invest a lot of time, preparation and patience in having work visas, tax file numbers, Fijian bank accounts and medical registration all processed. The young administrative assistants at the university are invaluablely helpful.

Fijian doctors are particularly keen for foreign specialists to work with them and teach them. This will inevitably be a two way process and emergency physicians undertaking a sabbatical in Fiji will themselves return with a wealth of new knowledge as well as a profound respect for a people who are working so hard and enthusiastically to build their own medical system.

---

## **Emergency Care in Fiji - An Update, June 2015**

*Anne Creaton*

[acreaton@hotmail.com](mailto:acreaton@hotmail.com)

---

### **LOCAL TRAINEES**

We have six trainees in the first cohort of specialist training in emergency medicine in Fiji. They are in the third year of the four-year Masters program and they are all progressing well. Key Fellows of ACEM (FACEM) involved in international emergency care have volunteered to form an examiner pool to write and conduct the first Masters exit exams at the end of the year. The final year of Masters involves research and development of skills required to be a specialist, such as teaching, mentoring, quality improvement and administration.

Diploma students from Kiribati and Samoa are progressing well and other Pacific Islands have expressed interest in sending doctors to Fiji for training in emergency medicine.

Two trainees have recently become instructors in the Primary Trauma Care (PTC) course and have the task of extending this course to train other health and emergency service personnel in Fiji. Our trainees were inspired by the success of the young emergency physicians in PNG in taking PTC to rural areas and hope to follow in their footsteps.

One doctor and one nurse are attending a MIMMS instructor training course in Sydney in July and we hope to run another MIMMS course in Fiji in the near future.

We recently took part in a multi-agency search and rescue/multi-casualty exercise in Suva. The scenario involved a vessel on fire in the Suva harbor. Much was gained from discussions with other agencies regarding the health response. Three of our trainees manned the casualty clearing station and performed triage and treatment. We have submitted a proposal to train personnel from the National Fire Authority, police, St Johns Ambulance and the military in the ED in Suva. We see this as the most pragmatic approach to improving liaison and training for those currently involved in providing pre-hospital care in Fiji.

The medical school is set to increase the time spent in EDs by undergraduates to four weeks and discussions are occurring regarding an extension to the period spent in the ED during internship.



(CONTINUED)

## OVERSEAS MEDICAL STUDENTS, TRAINEE AND CONSULTANT ROTATIONS TO FIJI

Rotations of four weeks for 6th year medical students from James Cook University are under way, and we are currently hosting the third group of students. With this arrangement an emergency physician travels to Suva for the first week of the rotation and hence provides an extra resource for teaching our postgraduate students as well. We hope that this will continue as a sustainable model to support the program long term.

ACEM accredited registrar terms have commenced, with our second ACEM advanced trainee currently in residence. This term provides an opportunity to see an incredible array of clinical medicine and infectious diseases, and to become part of our dynamic enthusiastic team. Jamie Roberts, our first ACEM trainee, also took on some non-clinical projects such as the development of a massive transfusion protocol, which gave him a valuable insight into stakeholder engagement and emergency care system development. We look forward to a steady stream of ACEM trainees continuing, as already the benefits to both the Australasian and Fiji trainees are apparent.

Three emergency physicians are assisting us for three months or more in 2015. Justin Hensley from Texas has recently departed. Becky Box, FACEM has joined us and we look forward to Donna Mills, FACEM joining us soon. Both are from Queensland.

The value provided by emergency physicians becoming embedded in the local environment,



**Jamie Roberts, ACEM advanced trainee with ED staff**

leading, supervising and teaching, cannot be over-stated. We hope to recruit more staff for 2016.

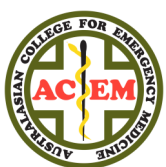
## RESEARCH

All Masters students have submitted great research proposals that are currently undergoing ethics approval.

It is an exciting time for emergency care research! Topics include validating the Heart Score for risk stratification of chest pain in the Fiji population and whether elevated anti-streptolysin titres are associated with failed reperfusion for ST segment elevation myocardial infarctions (STEMI) with streptokinase. I am also involved in a project to examine the demographic data of deaths due to acute cardiac disease in Fiji in 2014. This will provide valuable information for service planning and improving skills, drugs and equipment for those providing acute care in Fiji.

## QUALITY IMPROVEMENT ACTIVITIES

The Emergency Clinical Services Network (CSN) had several guidelines approved for dissemination in an attempt to provide a consistent approach to common life threatening presentations such as chest pain, STEMI, asthma, diabetic ketoacidosis, hyperosmolar hyperglycaemic state and ectopic pregnancy.





Outreach education, led by emergency doctors in all parts of Fiji, is progressing to improve the quality of assessment and care delivery and to encourage the use of these guidelines.



#### ***Bronchodilator self-service***

The CSN is in the process of developing a national Cardiac Life Support Training Plan. Emergency trainees are already performing annual workshops for dentists in the recognition and management of cardiac and other emergencies. The CSN is performing a review of triage practices in Fiji in consultation with the Paediatric CSN. The aim is to move towards a national triage system with training and credentialing of nurses across the country.

Another key area identified for quality improvement is trauma care. The trauma call system has been through a pilot phase in Suva, and is now working well. This process involves a single call to the hospital switchboard, which notifies staff from surgery, intensive care unit/anaesthetics, blood bank and radiology. Details of all trauma calls are logged and case management as well as trauma call attendance is reviewed and discussed. The aim is to progress to a trauma database for quality improvement and research purposes.

Quarterly multidisciplinary audits are held to discuss cases and we are awaiting delivery of some new equipment after fundraising activities by the International Women's Association. We have also had discussions with the engineering and

manufacturing faculties of the university to collaborate in a project to design and manufacture simple items locally such as slide boards and splints.

Our project to improve asthma care continues with an asthma champion appointed at Lautoka Hospital and dedicated asthma clinics due to open in Western Fiji.

#### **THE FUTURE**

Emergency care in Fiji is moving fast. There is so much to do.

We hope that the first cohort of Masters graduates will set up a local branch of the South Pacific Society for Emergency Medicine, started in PNG. They will need this to attract funding for meetings and short courses. They will need to be recognized as specialists by the Fiji Medical Council. They will need to take over the reins of the Clinical Services Network and decide on what to tackle next. They will need unity and collaboration.

Emergency nursing needs investment and a higher profile. Pre-hospital care and retrieval medicine need to be developed.

Much rests on the shoulders of the new young giants. They are up for it but they need your help. They need the support of their brothers and sisters in established systems. They need not to reinvent every wheel but to modify what exists to meet local needs. ACEM has assisted greatly by providing access to certificate and diploma resources and by looking at providing associate membership for Fiji emergency physicians. Fiji will continue to need expert teachers and examiners for the foreseeable future. If teaching staff can be recruited the Fiji program will be well placed to train those from other Pacific nations.



# SOLOMON ISLANDS

## A Collaboration Between DFAT and ACEM

By Georgina Phillips

[drgeorgina@gmail.com](mailto:drgeorgina@gmail.com)

Early in 2014 the Australian Government Department of Foreign Affairs and Trade (DFAT) asked ACEM for assistance to improve emergency care in the Solomon Islands (SI). Although DFAT / AusAID have previously funded several emergency care initiatives in the Asia-Pacific region, this is the first time ACEM has been directly approached by the Federal Government on any matter relating to international emergency care. This is clearly a testament to the value of the work of Fellows of ACEM (FACEM) in our region over several years.

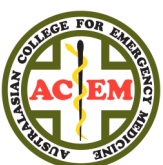
What eventuated in May 2014 was a scoping mission for emergency department improvement; a comprehensive evaluation and needs analysis based at the National Referral Hospital (NRH) in Honiara performed by a FACEM, Georgina Phillips, and an experienced emergency nurse educator, Kath Bowman. Of course, emergency care and emergency medicine is not new to Solomon Islands. ACEM has hosted two local trainees enrolled in the University of PNG Masters of Emergency Medicine program at recent Annual Scientific Meetings, including Trina Sale whose presentation was profiled in the December 2013 IEMSIG Newsletter. Despite the training and commitment of a few individuals however, the function of the emergency department (ED) at the NRH was inadequate for the daily needs of the people, and certainly resilience during recent disaster situations has been negligible. Morale, too, has been deteriorating.

Using the methods we developed in Timor-Leste (2009), and that have been used in PNG (2009), Vanuatu (2010) and Kiribati (2011), Kath and I documented all the components of ED function at the NRH. We used a structured observation assessment table and over 80 interviews to clarify where the issues lay. This information helped us to develop appropriate goals and priorities within the local resource constraints, and then led to several strategic recommendations. The audience for our report was both DFAT and the local stakeholders, so our recommendations included many simple, low-cost and practical suggestions that could be initiated by the NRH leadership team without requiring external support. We received crucial feedback towards the end of our time in Honiara which shaped the recommendations back to DFAT regarding a long-term program of expert Technical Assistance (TA) to build capacity and resilience in the ED at NRH and for emergency care in Solomon Islands generally.



**A crowded area of care in the ED at NRH**

Our report was highly regarded by the Solomon Island DFAT team, who recognised the issues and accepted our expert recommendations as thoughtful and appropriate. The challenge, of course, has been financial; made even more difficult in a year where Australian foreign aid has been cut substantially and planning for new programs severely curtailed. Our initial TA program recommended a four-person team



(two FACEMs and two emergency nurses) to focus on leadership, education and ED systems over a seven to ten year timeframe. At the request of DFAT we have since provided several scaled and costed options involving fewer personnel and for shorter time periods. The International Emergency Medicine Committee Chair, Gerard O'Reilly, Kath and I have worked hard to preserve the integrity of our recommendations for a sustainable and effective program of support and capacity development within ever diminishing budgetary constraints.

The return of the first cohort of Cuban-trained doctors to the Solomon Islands has further highlighted the need for senior clinicians in the ED at NRH. ACEM is now working on a new partnership arrangement with DFAT that aims to place long term clinicians on the ground in Honiara within a supported framework. We hope to know more within the next few months.

A meeting between ACEM (Foundation Director and the former IEMSIG executive) and the DFAT Health Program Directors in Canberra just before Christmas 2014 confirmed to us that our concerns about the importance of emergency care and the needs in our region are shared. Building capacity for emergency care is increasingly recognised by our government as essential to creating cost-effective resilience in health systems – particularly in the light of ever increasing disasters and complex emergency situations. The relationship established between ACEM and DFAT for the Solomon Islands project creates a platform for future opportunities to collaborate on programs that can strengthen emergency care in our region.

We remain confident that the ACEM-DFAT Solomon Islands emergency care program will proceed. So the next step is to recruit an experienced, enthusiastic FACEM and similarly talented nurse, prepared to

commit to at least a year of international work. Consider this as a new, exciting career possibility!

For any further information, please feel free to contact me at [drgeorgina@gmail.com](mailto:drgeorgina@gmail.com)



# PAPUA NEW GUINEA

## An Update, June 2015

Colin Banks

[Colin.Banks@health.qld.gov.au](mailto:Colin.Banks@health.qld.gov.au)

There has been significant progress in emergency medicine in Papua New Guinea (PNG) this year, not only in clinical service but also in education and research. Last year finished well with both Bobby Wellsh and Dennis Lee completing their emergency medicine training and bolstering the ranks at Port Moresby General Hospital. They have both made major contributions to the recent improvements.

The biggest change has been a re-structuring of the emergency medicine training program. Specialty training is administered through the University of PNG in the form of a Masters of Medicine (MMed) degree. Until 2015 the first year of MMed(EM) has been spent as a surgical trainee, working as a surgical registrar and doing the surgical part one exams. While there is a degree of overlap, the exams are designed for surgeons, not emergency physicians. This has also meant that trainees have spent the vast majority of the first few years away from the emergency department (ED), only returning in the final year. In fact, it has been quite common for there to be no official trainees in the ED at all. This year marks the first year of an emergency medicine Part 1 exam and the trainees working as emergency medicine registrars. For Port Moresby General Hospital (PMGH), there are now five registrars working in ED that would otherwise have not been there.

Maintaining oversight over the Part one program is Dennis Lee. He has joined UPNG as a senior lecturer

in emergency medicine. One of the many challenges he faces is that he is now coordinating a program where the content is largely new to him. To assist, David Symmons and I delivered an intense preparation workshop in May. The six candidates all did well during what was a long week. Special mention must go to Carl Kingston, whose wife had a baby three days before the workshop.

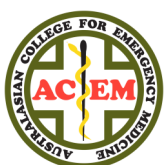


***MMed(EM) Part 1 candidates for 2015 (left to right): Ugava Sere, Todi Alves de Jesus, Ware Kagoli, Klange Nemba, Jiuth Gawi and Carl Kingston. Jiuth Gawi is working in Madang, the rest in Port Moresby.***

The part two exams this year may have up to seven candidates, including either two or three from Solomon Islands. This will be the largest cohort thus far in the short history of emergency medicine in PNG. Desmond Aisi MMed(EM) is leading the preparation.

There have been a number of changes at PMGH ED. The first appreciable difference in May was that there were not corridors overflowing with patients with tuberculosis (TB). They were moving to the wards in a timely fashion. This is not before time as a third ED doctor had been recently diagnosed with TB.

Despite this, morale seems high and there has been a noticeable improvement in the quality of care. ED teaching is split into three streams and is both well attended and well regarded. Emergency medicine



now regularly presents at the Grand Rounds at PMGH. Bobby Welsh has enlisted PMGH ED as a recruiting site for two international trials (CRASH-3 and HALT-IT). All of these developments mark the progress that emergency medicine is making, at least in PMGH.

The Pacific Games were in Port Moresby in early July and the Chief of Emergency Medicine, Sam Yockopua, was heavily involved in the medical preparations for this large event, which had 22 countries represented.



***Sam Yockopua outlining the preparations for the Pacific Games***

Outside the capital there are emergency physicians in three other centres, with hopes that the expansion will continue as numbers build.

Despite all these improvements, significant challenges still remain. However, with the current group of emergency physicians and trainees, emergency medicine in PNG is ready to meet whatever lies ahead.



# TIMOR LESTE

## Emergency Life Support (ELSi) Goes Further

Phil Hungerford

[philhungerford@bigpond.com](mailto:philhungerford@bigpond.com)

Over the past eight years the Emergency Life Support international (ELSi) course has been delivered in a number of low income Asian and South Pacific countries including Myanmar, PNG, the Solomon Islands and Vanuatu. These courses consist of two days of alternating lectures and skill stations and are modified country-specific versions of the well-established Australian designed and run course. Also, where possible, these courses have a train the trainer component, with the long term aim of the courses being locally owned and run.

The delivery of emergency medicine in Timor Leste experiences the same barriers that are common to many of the low income South Pacific countries - inadequate resources, infrastructure, manpower and training opportunities for health care providers. To help address the latter, The Royal Australasian College of Surgeons (RACS) has funded the development of a program for post graduate year one and post graduate year two local medical graduates aimed at preparing them for work in the Community Health Centres (CHCs).

To this end a two year Family Medicine Program (FMP) has been developed and this program started on 1st July 2014. The program is headed by Antony Chenhall Fellow of ACEM (FACEM), who has been living and working in the country for a number of years. The program involves both general "how to be a good doctor" activities and also activities designed

to train doctors in the specific skills and knowledge needed to work in the CHCs.



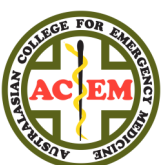
**Antony Chenhall instructs**

The ELSi course has been integrated into this program and as such was run three times in the second half of 2014. The courses were conducted by a visiting faculty of Australian emergency doctors (Phil Hungerford, Mark Miller, Kate Porges, John Kennedy, Chris Trethewy, Greg McDonald, Michael O'Flynn, Stephen Burrows, Terreene Bates), and Antony Chenhall. The three courses were attended by a total of 51 Timorese doctors.



**ELSi Timor Leste**

In teaching the courses, there were two issues which were anticipated beforehand but which proved to be more significant than expected. The first related to language and comprehension - the course was taught in English.



The second related to the course participants' prior skills and knowledge in emergency medicine. Despite this, the ELS courses were thought to be very successful, with the Timorese doctors enthusiastically adopting the standardised approach to stabilising and managing seriously ill and undifferentiated medical patients.

A cache of dedicated training equipment was established for the course and this cache now resides in Timor Leste for future ELS courses. There is a plan to run more ELSi courses in Timor Leste in 2015 and 2016.

There are also plans in the making to run ELSi courses in Fiji and in Nepal.



# MYANMAR

## The Myanmar Emergency Medicine Development Program - An Update, June 2015

Kerry Hoggett

[kerryhoggett@yahoo.com.au](mailto:kerryhoggett@yahoo.com.au)

The Myanmar Emergency Medicine Development Program (MEMDP) saw the realisation of Phase two in 2015 with the beginning of the three year emergency medicine training program for Masters of Emergency Medicine (MEM) at University of Medicine in Yangon. Twenty-five candidates have been admitted to the first year of the program, all currently working within the Emergency Department (ED) at Yangon General Hospital. Candidates are rostered to the resuscitation room, medical and surgical admissions units and triage. The introduction of weekly practice audits for ED continues to demonstrate improvements in identification and resuscitation of priority one cases. Workplace based assessments have been run for the first time in Myanmar, and this process has been warmly welcomed by both the MEM candidates and local

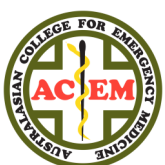


*The 2015 YGH EM team – EM physicians, MEM trainees, DipEN trainees*

emergency medicine physicians. This year has also seen the success of the first Emergency Life Support international (ELSi) course for the new students, run entirely by a faculty of locally trained emergency physicians – which, together with the Masters teaching program, showcases the developing teaching and mentoring skills of the first emergency medicine graduates.

The eight Diploma of Emergency Medicine candidates (EM8) are now working towards their final examinations in August 2015, and will soon strengthen the senior emergency medicine workforce. The candidates have completed advanced paediatric life support (APLS), Advanced Trauma Life Support (ATLS), Advanced Cardiac Life Support (ACLS), Ultrasound, Major Incident Medical Management Support (MIMMS), Teaching on the Run and Clinical Toxicology courses this year, and benefitted from a two week visit to Hong Kong to view international emergency medicine systems. As they complete their training, we are looking to the development of new emergency departments in the Women's and Children's Hospitals in Yangon, with the new emergency physicians hoping to combine their emergency medicine and obstetrics and gynaecology /paediatric skills.

The Myanmar government introduced free of charge emergency care at public hospitals in 2014, which has contributed to an increasing number of presentations. With the growing interest and exposure to emergency medicine, Yangon General Hospital ED has been freshly renovated to improve patient flow, with the completion of a new resuscitation room and development of dedicated triage and “undifferentiated patient” areas, which will soon be operational.







***The new resuscitation room, YGH***

In addition, new EDs are being designed for Central Women's and Yangon Children's Hospitals. Emergency physicians at Nay Pyi Taw and Mandalay hospitals continue to develop their departments and improve local processes, and have also played a vital role in education of the new Masters of Emergency Medicine trainees.

June 2015 saw the inaugural National Meeting for Emergency Ambulance Services, which was attended by the local and international emergency medicine team, as well as other government and non-government organisation stakeholders. The meeting reached a useful consensus towards the development and implementation of national ambulance services. In combination with the commencement of the Diploma of Emergency Nursing, Phase three of the MEMDP is fully underway. We look forward to the continued development of hospital and prehospital processes to maximise the benefits in emergency patient care.

*Kerry Hoggett is an emergency physician and toxicologist at Royal Perth Hospital in Western Australia. She started with Australian Volunteers International (AVI) in February 2015, joining AVI volunteers Rosanne Skalicky (-Klein) FACEM, Nigel Klein (emergency nurse and paramedic) and Lynette Cheverall (emergency nurse) in Myanmar.*

---

## Emergency Nursing in Myanmar - An Update, June 2015

*Lynette Cheverall*

[lynette.cheverall@me.com](mailto:lynette.cheverall@me.com)

---

The Diploma of Emergency Nursing (DEN) started at the beginning of 2015 with five candidates. They have successfully completed the first semester and are now into the second semester, which will continue to enhance their knowledge in the area of emergency nursing. They have spent time in the intensive care unit, to improve their management of critically ill patients, and in the Emergency Department (ED) at Yangon General Hospital (YGH). In the second semester three trainees are spending most of their time at Yangon Children's Hospital to provide them with paediatric experience. They will swap in the third semester with the remaining two.

The trainees sat exams and Objective Structured Clinical Examinations (OSCE) at the end of the first semester. They are used to sitting exams but not OSCEs, which were very new for them and the faculty at the University of Nursing. The trainees were understandably nervous, but we hope the experience will assist them, not only for future OSCEs, but also in their practice.

During the first semester the emergency medicine consultants and current Diploma in emergency medicine (EM8) trainees delivered the two day Emergency Life Support Course for nurses (ELSn). Twenty five nurses attended.

As part of the DEN program we delivered a triage workshop to our trainees and to 16 other nurses from various hospitals in Yangon. The majority of



# MYANMAR

(CONTINUED) these nurses work in the EDs in those hospitals (including YGH). We were able to include the charge nurse and other senior nurses from ED at YGH, in the hope that we may soon be able to get nurses up-skilled to take on a triage role.



*ELSn participants and faculty*



*Triage practice*

Following this day we allocated our trainees morning and afternoon shifts at triage, and with our clinical support they were able to use the modified triage system to triage patients presenting to the ED. It was slightly rocky at the start, due to implementing some changes to the current system used by non-ED medical staff.

Another recent change has been the start of regular nursing in-service education for the nurses in ED at YGH. We are providing bi-weekly education in the mornings and repeating the lectures to try to capture

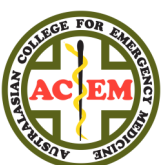
the majority of nurses in ED and in the medical and surgical observation units. So far we have provided education to over 20 senior, junior, and student nurses.

In the upcoming weeks our DEN trainees have more exams including OSCEs. We also have an orthopaedic workshop planned for our trainees. Nurses from the various hospitals in Yangon will also be invited.



*Emergency Nursing trainee teaches nurses*

*Lynette Cheverall is a senior emergency nurse educator from Sir Charles Gairdner Hospital (SCGH) in Western Australia. She took up an Australian Volunteers Inter-national (AVI) position in February 2015 to develop emergency nurse training in Myanmar. She has joined Nigel Klein, resident AVI volunteer for pre-hospital care and emergency nurse training.*



---

## Pre-Hospital Care in Myanmar - An Update, June 2015

Nigel Klein

[ncklein4@gmail.com](mailto:ncklein4@gmail.com)

---

Pre-hospital care in Myanmar is still in the conceptual stage. Some might say 'the best is often left to last'. Probably a more accurate reason for what could be seen outwardly as slow progress in this area compared to other emergency care development, is the surrounding complexity.

Some of this complexity lies in the fact that there is no significant infrastructure or framework on which an ambulance system can be built upon. Unlike emergency medicine and emergency nursing, which were able to develop based on a well-founded university system and an available source of employed government workers, ambulance care is a completely 'green field'. Its necessity as part of the patient care continuum is only understood by a small handful of people, and those who truly understand the specific issues of development are even fewer. These issues include but are not limited to: finance, training, communications, law, physical and human resources, public - private partnership, and the interface with other emergency services such as fire and police.

As part of Phase three of the Myanmar Emergency Medicine Development Program (MEMDP), renewed commitment by the Government to develop pre-hospital care was demonstrated in an inaugural National Seminar on Ambulance System Development held in the capital, Nay Pyi Taw, in June. Many key stakeholders including police, fire, military, social and charitable organisations, communications experts, private hospitals, government representatives and medical staff, attended the meeting. The Vice President of

Myanmar who spoke of his commitment and that of the Government to improve emergency medical services officially opened the meeting. Held over two days, the meeting saw a number of presentations and workshops being conducted.



**Opening Ceremony, National Seminar on Ambulance System Development, Nay Pyi Taw, June 2015**



**Pre-hospital care workshop, Nay Pyi Taw, June 2015**

The Deputy Health Minister was present on the second day for presentation of recommendations from the workshops. In brief these recommendations included:

- Endorsement of the need to establish a national standardised ambulance system.
- Agreement to a three-tiered system - basic, intermediate and advanced levels of service provision.



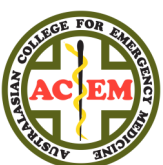
# MYANMAR

(CONTINUED)

- A hybrid model using both volunteers and professionally trained staff and the need to work collaboratively with existing providers.
- The need to ensure and enact suitable laws in relation to an emergency medical System.
- The need to ensure national registration of all organisations providing ambulance services together with suitable standards for vehicles, equipment and practice.
- Investigation of communications needs and review of available technology.
- The immediate short-term priority is to provide basic training and other support to those currently providing services particularly in the communities immediately located along the national highway between Yangon and Mandalay.

As Phase one and two of the MEMDP continue to consolidate, the development of pre-hospital care as part of phase three promises to be equally challenging and exciting, if not more so.

*Nigel Klein is an emergency nurse and intensive care paramedic volunteer supported by Australian Volunteers International (in partnership with ACEM).*



---

## The First Emergency Physicians from B.P. Koirala Institute of Health Sciences

*Chris Curry*

[chris@chriscurry.com.au](mailto:chris@chriscurry.com.au)

---

Two candidates for the Fellowship in Emergency Medicine at B.P. Koirala Institute of Health Sciences (BPKIHS) in Dharan, Eastern Nepal, passed final examinations in March 2015. The newly qualified emergency physicians are Rabin Bhandari and Sonai Chaudhuri.

Mel Venn, ACEM advanced trainee, played an important role in their training and in the conduct of the exams. International examiners were Chris Curry and Tony Mattick.

The Fellowship in Emergency Medicine was launched in October 2013. An 18 month program, it was supported by ACEM advanced trainees Rob Currie, Kai Hsiao, Byron Booth, Kim Poole and Mel Venn.



**Rabin Bhandari,**  
*celebrating Holi, the  
Hindu Festival of Colour*

**Kai Hsiao and Sonai  
Chaudhuri**

Fellows of ACEM (FACEM) who visited were Chris Curry, Sabine Boes, Naren Gunja, Geoff Hughes, Sumeshni Jairam, Tony Mattick, Mark Monaghan, Tom Morton, Gaynor Prince, Jennifer Rush, Sarit Singh, Vera Sistenich, David Symmons, Ros Taylor, Ric Todhunter, Gina Watkins, Merle Weber. The support of all these contributors is greatly appreciated.

---

## Advancing Emergency Medicine Training in Nepal – B.P. Koirala Institute of Health Sciences, Dharan

*Mel Venn*

[mel.venn@gmail.com](mailto:mel.venn@gmail.com)

---

### BACKGROUND

B.P.Koirala Institute of Health Sciences (BPKIHS) is a large university and teaching hospital located in Dharan, in Eastern Nepal. It has around 900 inpatient beds, and offers general surgery, neurosurgery, orthopaedics, ear, nose and throat (ENT), obstetrics and gynaecology, general medicine and most medical specialties, and has large outpatient clinics and emergency department run by the Department of General Practice and Emergency Medicine (GPEM). There are separate Emergency Departments (ED) for paediatrics and obstetrics. The Institute serves the six surrounding districts, rotating staff and students to district and zonal hospitals and primary health care centres.

The campus is an ex-military base, over 700 acres, with accommodation for staff, students and their families, sports fields, tree-lined roads, a K-12 school, shops and banks, a Gurkha Base and a golf course.



# NEPAL

**(CONTINUED)** It has its own water treatment plant and generator system, which means it is not beholden to power cuts (as Kathmandu is). Dharan is on the northern edge of the flat dry Terai region, with the hill region beginning just north of town, extending all the way to the Himalaya. The population of the city and surrounding villages is about 125,000.

There has been longstanding Australian and New Zealand involvement in GPEM, with the department headed by Owen Lewis from 2003 to 2008, and subsequently by Susan Smith and Malcolm Moore. The first Nepali Head of Department (HoD) was Gyanendra Malla, who spent a year in 2004/5 training at Royal Adelaide Hospital, before returning to BPKIHS and championing specialist training in emergency medicine, and becoming HoD in 2011. Development of the Fellowship program took many years and a lot of hard work, particularly from Chris Curry, and the first three candidates commenced their 18 month program in 2013.

## WORKING IN THE ED

I worked in the ED for five months as part of an ongoing ACEM project supporting the Fellowship in Emergency Medicine. I arrived in January 2015 to assist with final preparations for the Fellowship examinations and ongoing education. Pre-departure discussions with Chris Curry, previous registrar Kai Hsiao and current registrars Kim Poole and Byron Booth had partially prepared me for this term, but there's nothing quite like living it!

## LAYOUT AND STAFF

The ED is arranged by patient acuity, and consists of "A" and "B" resuscitation cubicles, open spaces for

"C1" and "C2", a small procedure room for "D" area, and another ward area for "E" which usually houses orthopaedic and psychiatric patients.

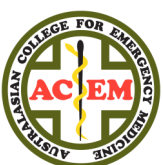
The official ED capacity is 31 beds, however in practice there is no fixed bed number, as trolleys are squeezed in side by side as needed, and when they run out, patients use mattresses on the floor. It is common to have more than 50 patients in the department at any time, plus two to three family members for each patient, so it can be quite a loud and hectic place. The ED sees about 150 patients a day, and some stay in ED for one to three days due to access block. There is an "Observation Unit" which is usually used for admitted patients awaiting beds, and not as an ED short-stay.

The Resus bays are slightly larger than the regular cubicles I'm accustomed to in Australia and NZ, with two monitors in each, and one nurse allocated.

Most of the time there are two or three patients in each, but we fit in four patients multiple times a day, leaving just enough space to squeeze between trolleys to access the patients and equipment.

The ED is staffed by consultant faculty with MD in GPEM, the Fellowship in Emergency Medicine fellows/candidates, junior residents (post graduate year three to five registrars in GPEM training program), house officers (post graduate year two to three, rotating), and interns.

The traditional ward round system still runs here, with consultant-led rounds at 8am and 2pm, and a registrar-led handover at 8pm. In the past this was often the only time cases were discussed with a senior staff member, however in the last couple of years the culture has been changing, and junior staff usually discuss cases with more senior staff as they see them, particularly high acuity and complex cases.



The big change has been that all Australian Triage Scale (ATS) one to two patients who arrive between 8am and 8pm are seen by both junior staff and faculty on arrival, in a similar way to Australia and New Zealand EDs.

Following the successful pattern of previous visitors, I shadowed the fellows, Rabin Bhandari, Rajani Giri and Sonai Chaudhuri, in their daily shifts on the floor, concentrating on higher acuity (ATS 1-2) patients, participating in ward rounds, teaching-on-the-run with junior staff, and case discussions. On Fridays we had teaching sessions, with the fellows presenting topics from the curriculum, discussing cases, and doing practice questions from the bank of past ACEM fellowship exams. Sonai and Rabin successfully completed their Fellowship Examinations in March 2015, and Rajani will sit her exam in September 2015 (delayed due to maternity leave).

### **CASEMIX AND PATIENT CARE**

Patient presentations run the gamut of emergency medicine - road trauma, assaults, snake bites, organophosphate poisonings, severe sepsis and serious surgical problems, as well as the expected infectious diseases of malaria, dengue, TB, HIV, tetanus, leprosy and infectious gastroenteritis.

As everywhere, there is a huge and growing burden of non-communicable diseases, with complications and comorbidities the norm. The big difference is late presentation, poverty and lack of universal health care - for the most part it is cash up front, with exceptions made for the very poor and destitute. Health literacy and medication compliance are generally very poor.

Alcoholic liver disease is rife, and often presents in end-stage liver disease with gross ascites, coagulopathy, hepatic encephalopathy and gastrointestinal bleeding, often torrential and

sometimes fatal. Kidney disease is very common, and dialysis places limited - dialysis-dependent patients are usually scheduled for weekly or two-weekly appointments, and often present to ED in extremis, with acute severe pulmonary oedema, severe metabolic acidosis and hyperkalaemic ECG changes or VF arrest. Hemodialysis is government-subsidised, but not free. Peritoneal dialysis is not available, and would not be appropriate in most village situations.

These patients often require intubation while they wait for rescue dialysis, and due to limited Intensive Care Unit (ICU) beds, come back to ED intubated. The ICU has 12 ventilators but there is competition for beds, and patients are often transferred to private ICUs in the region (only one of which has a Critical Care-trained consultant). There are no ventilators in ED. Intubated patients are ventilated by self-inflating bag, by the 'patient-party' (relatives and friends), often for days at a time. This can be a big issue when people change over and the next person doesn't know what to do. One of my initiatives was an instructional poster for families giving the key points of manual bag ventilation - volume, timing, and watching for chest rise and circuit disconnections.

Monitoring is limited by the equipment available, as well as by nursing ratios. Despite many years of lobbying, further machines have not been made available. At this time there are two monitors in "A" area, a portable defibrillator (with paddles and gel), and two monitors and an O2 Sats monitor in "B" area. There is one manual blood pressure cuff for each area, and an O2 Sats probe at triage. No invasive monitoring is available outside ICU.



# NEPAL

**(CONTINUED)** The nurses do an incredible job and I have been very impressed. With ratios of 1:2-1:4 in Resus, and up to 1:30 in the main ED it is amazing that they are able to achieve so much. They are smart, think on their feet, and are very keen to learn. Their post-graduate continuing education is extremely limited, and this is a huge opportunity for further work in Nepal. It is our hope that initiatives in Kathmandu will spread nationwide.

## TOXICOLOGY

Nepal is a dream location for toxicologists. Cobra, krait and viper bites cause local necrosis as well as systemic coagulopathy, rhabdomyolysis, renal failure, and neurotoxicity leading to respiratory paralysis. Polyvalent antivenin is available, and used in huge quantities despite recent evidence from India suggesting that 30 vials should be the maximum dose.

Tragically, the poisons of choice for suicide attempts are organophosphate and organochlorine herbicides and zinc phosphide rat poison – all readily available in corner stores. Treatment for organophosphate poisoning involves massive doses of atropine (my record for the year was 727 x0.6mg vials) and pralidoxime, intubation, and a lot of hope – survival is more likely if they didn't aspirate prior to presentation. For the latter poisons, treatment is supportive, and most patients who take zinc phosphide die from multi-organ failure about a week after presentation. Prescription tablet overdoses are rare, or at least they don't present to ED.

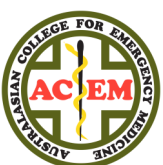
The other major modality for suicide is self-immolation. This was the toughest thing to cope with – young women dousing themselves in

kerosene, and presenting with burns that are un-survivable in this country (the statistics suggest that anything over 40% total burn surface area is expected to be fatal). There is one Burns Unit in Kathmandu, however most severely burned patients are too sick for >14 hour road transfer.

Palliative care is a new concept. It is common for a patient party to take a terminally ill patient home, but the usual cause is the patient party running out of money and it is described as “LAMA” leaving against medical advice. Because of poor health literacy and the real threat of reprisal against doctors, palliative care is not often discussed as a viable option, despite the clear futility of active life-sustaining management. It has been a challenge to address this with junior staff and inpatient teams. The first question on our newly introduced intubation checklist asks “Is intubation the right thing for this patient?”

## PRE-HOSPITAL CARE

Pre-hospital medicine is in its infancy, with only a handful of trained ambulance officers in equipped ambulances, based in Kathmandu. The ambulances in this part of the country are jeeps with stretcher space in the back, oxygen cylinders, and a driver. Rabin Bhandari and the GP/EM team have trained all of the local drivers in basic life support, however they say that they are scared to initiate any treatment for fear that the family will misunderstand their intentions and beat them. Drivers have reported being beaten in order that they drive faster to the hospital. There are medics on most of the army bases spread through the country. On one occasion we looked after a young soldier who had been bitten by a cobra, and whose life was saved by pre-hospital intubation and antivenin administration.





## CHALLENGING MEDICINE

Medicine in Nepal is confronting and challenging. At times it can be hard to cope with the sheer amount of suffering you see on a daily basis. I think I averaged one patient death per day during my time here, and witnessing the burden of disease on surviving patients and their families – financial, physical, psychological - was often more intense than the deaths themselves.

But behind all this are the huge rewards of working here. The Fellows and GPEM trainees are smart, motivated and dedicated to improving emergency care for the Nepali people. The patients and their families are kind and so incredibly strong in the face of hardship. The cases will keep you on your toes, and you will manage things you couldn't imagine seeing at home.

## CHANGE IS HAPPENING

Change is happening slowly, and it feels like things will progress faster as Nepali emergency specialists graduate. Rabin, Sonai and Rajani are dedicated to emergency medicine in Nepal, and to doing everything they can to improve patient care, despite significant obstacles. Since the Fellowship Exam in March, we have implemented compulsory block capitals in writing drug charts, a structured written handover sheet for patients in “A” and “B” area, an Rapid Sequence Intubation (RSI) checklist and compulsory notification of senior staff before intubation or commencement of inotropes. Upcoming projects are a difficult airway algorithm, Diabetic Ketoacidosis (DKA) protocol, Inotrope/Vasopressor Drug Protocol, and the second phase of Rabin's study on analgesia in the ED, with provision of education and introduction of guidelines.

The next batch of Fellowship candidates is expected to start later in 2015, and there are a number of

GPEM trainees looking ahead to specialising in emergency medicine in the future.

## RECREATION

Away from work, Nepal is an amazing country, and taking time off to see the sights is an absolute must. My highlight was a seven day mountain-biking tour in the wilds and villages of North Eastern Nepal with a local surgical registrar and his friend, with whom he co-runs the only mountain-bike shop outside Kathmandu and Pokhara.

Other ways to unwind included visiting the local swimming pool, running in the campus grounds (to the amusement of the children), and taking rides on the motorbike into the nearby hills.



*Mountain biking, eastern Nepal*



*Terai biking, eastern Nepal;*



# NEPAL

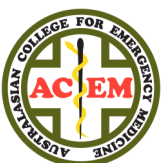


**Traditional Newari dinner**

(CONTINUED) Culturally, I joined my colleagues on campus to celebrate Holi, the Festival of Colours, and was able to partake in traditional feasts with music and dancing, in a palace in Kathmandu and in a monastery school in Patan. My trek to Everest Base Camp didn't quite go to plan due to the earthquakes (that is another story in this issue).

If you are prepared for a challenge, perhaps an accredited term in Dharan is for you. Find out more on the [ACEM IEM site](http://www.acem.org.au), or by emailing Chris Curry at [chris@chriscurry.com.au](mailto:chris@chriscurry.com.au) or myself, Mel Venn at [mel.venn@gmail.com](mailto:mel.venn@gmail.com).

Mel Venn was preceded at BPKIHS by Byron Booth and Kim Poole. You can learn more about emergency medicine in Dharan and in Nepal from Byron Booth's blog: <https://nepalmedics.wordpress.com/>



---

## The 3rd Nepal Emergency Medicine International Conference (3rd NEMIC)

Chris Curry

[chris@chriscurry.com.au](mailto:chris@chriscurry.com.au)

---

This program was run over seven days, 13th-19th April 2015. A whole day was dedicated to each of emergency department documentation, emergency nurse training, pre-hospital care training, toxicology and ultrasound. Basic Life Support workshops were run concurrently on these days. Two days of conference included senior Nepali clinicians and international speakers from Australia, New Zealand, Singapore and UK.

FACEM contributors were Chris Curry, Sharif Elgalfi, Peter Freeman, Shima Ghedia, Naren Gunja, Jamie Hendrie, Sue Ieraci, Dushan Jayaweera, Sattish Mitter, Tom Morton, Brian O'Connell, Gaynor Prince, Jennifer Rush, David Symmons, Gina Watkins. Advanced trainees were Ruth Attard, Mel Venn.

The support of all these contributors is greatly appreciated.

[www.nadem.org.np](http://www.nadem.org.np)

<https://www.facebook.com/ncemnepal>



**Ramesh Maharjan, Ajay Thapa, Brian O'Connell, Ram Neupane, Sameer Thapa**



**Chris Curry, Tom Morton, David Symmons, Brian O'Connell, Jennifer Rush, Peter Freeman, Gina Watkins, Jamie Hendrie**



**Shima Ghedia**

---

## **Emergency Nursing Training in Nepal - Building an Essential Layer in Emergency Departments After the Earthquakes**

*Brian O'Connell*

[bocmedical@gmail.com](mailto:bocmedical@gmail.com)

---

### **INTRODUCTION**

In the digital age that we live in a lot can be told from a simple inquiry on the Google search engine. Type in 'Emergency Nursing Nepal' and you will not be overwhelmed with relevant hits. NADEM.org.np, NurseTeachReach.org and the new 'Supporters of Emergency Nursing Nepal' facebook page are the top three hits. There is a paper by B. Gamrath from 1988, of which the abstract is not easily found. This reasonably accurately reflects the real life situation in Emergency Departments (ED) in Nepal. There is extremely limited or no active training for Emergency Nurses (ENs) in the country. What was a massive hole in the health system was made even more obvious in the aftermath of the devastating first earthquake on the 25th April 2015.

### **BACKGROUND**

We have heard reports of nurses from the UK, Australia and the USA among others come to Nepal and do volunteer work and try to improve the situation in Nepal EDs over many years. This seems to have been mostly on an ad hoc and single site format.

Our first exposure was in 2013 when myself and my now wife went to live in Kathmandu for a three month ACEM accredited term under the guidance of A/Prof. Chris Curry in Tribhuvan University Teaching Hospital (TUTH).



# NEPAL

**(CONTINUED)** As a general practitioner and an advanced trainee in emergency medicine my primary role was to mentor and teach the first batch of emergency medicine trainees. Ruth is a Clinical Nurse Specialist and has trained as an Enrolled Nurse (EN) in Ireland and Australia for 12 years. She worked with both the junior and senior ENs in TUTH ED.

It became very obvious within the first few days in TUTH that there was a great enthusiasm for learning and knowledge in both the doctors and nurses working there, but there was a large disparity in access to education and training between the disciplines.

We worked together by not only helping the individual doctors and nurses but also by bringing them together in a simulation training program, on the floor and in classroom tutorials. Seeds were sown in meetings with the Director of Nursing, ED Nursing Head and the University Campus Chief to develop a specialised Emergency Nurse Training program but unfortunately as often happens in projects, progress slowed after leaving the country with a lack of drivers for the proposal.

## EMERGENCY MEDICINE TRAINING MODEL

As Chris Curry has shown in the development and roll out of the training program for emergency physicians in Nepal, essential components are necessary for success, which include:

- A critical mass of international and local supervisors and tutors
- Sponsorship and support by the Institute of Medicine and the Nepal Medical Council

- A curriculum and structured program that meets the needs of the local environment.

It is this model that the emergency doctors have achieved over a number of years that is desperately needed for their nursing counterparts.

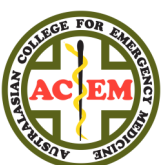
## PROGRESS IN 2015: 3RD NEMIC

Political, resource and leadership issues led to a lack of progression of emergency nurse training until late 2014. Following the graduation of the first emergency physicians from the TUTH program, Dr Ramesh Maharjan took on the coordinating role of the upcoming Nepal Emergency Medicine International Conference (NEMIC). Ramesh invited myself, Lucy Rowe (Intensive Care Unit Nurse and Director of NurseTeachReach) and Margaret Murphy (Clinical Nurse Consultant, ED, Westmead Hospital, Sydney) to help run a dedicated Emergency Nursing Day Conference during the 3rd NEMIC week (13-19th April 2015).

Planning from Sydney occurred whilst coordinating with local stakeholders in Kathmandu. This led to an historic schedule of distinguished speakers from senior Nepali nursing circles, the first of its kind and the official inception and promotion of a national Emergency Nurse Training Program.

[http://nadem.org.np/uploaded/14\\_April\\_2nd\\_Day\\_of\\_3rd\\_NEMIC\\_Emergency\\_Nursing\\_Conference.pdf](http://nadem.org.np/uploaded/14_April_2nd_Day_of_3rd_NEMIC_Emergency_Nursing_Conference.pdf)

On the day, ENs from inside and outside the Kathmandu Valley gave stimulating and enlightening conference presentations. The afternoon schedule was divided with registered nurses involved in clinical skills and training designed and run by NurseTeachReach and senior clinical nurse educators from Adelaide, Townsville and Sydney (see image on next page).





**Margaret Murphy, Bridie McIlroy, Daya Laxmi Joshi -President Nepal Nursing Council, Lucy Rowe, Brian O'Connell**

The senior emergency nurse managers from multiple hospitals met with other members of the international team of supporters and brainstormed ways to improve and structure hospital in-service training for ENs. This was an interactive and successful meeting.

### HIGH LEVEL NURSING MEETINGS

The following days allowed the momentum to continue and involved a number of meetings with the national Nepali nursing hierarchy. We were met with a great deal of eagerness and energy from the country's highest level nursing figures who included the Chief Nurse of the Nepal Government, the Presidents and Vice-Presidents of the Nursing Council and Nepal Nursing Association, the Nursing Director of TUTH and Campus Chief of the Institute of Medicine (IOM), amongst others. Lively and open discussions between the Nepali and international teams occurred and issues and potential barriers to progress were debated.

### PROPOSED GOALS

The setting up of Emergency Nurse Training using:

1. The formation and regular meetings of a Nepal Emergency Nursing Taskforce with

representatives from hospitals in Kathmandu and outside the capital.

2. Hospital specific in-service training programs: Details to be discussed further in relation to frequency, duration, curriculum, support from international emergency nursing team, etc.
3. University run Emergency Nursing courses via the IOM - Suggested Phases 1, 2 and if sufficient progress, Phase 3.

**Phase 1:** Aiming to be operational within estimated 12months. Potentially 3 month course, 1 month in classroom, 2 months clinical.

**Phase 2:** Potentially in 2-3 years. Up to a one year long course.

**Phase3:** Higher level emergency nursing qualifications. Most likely in greater than 5 years from now, i.e. 2020.

4. Liaison and collaboration with similar Emergency Nurse Training projects in other developing countries, notably the great work being done in neighbouring Myanmar by Australian emergency nurses and FACEMs.

It is proposed that with the backing of the Council, Association, IOM and the Government these programs should be well supported and have the necessary frameworks to ensure good quality and longevity.

### ISSUES

**Challenges** that will be encountered will no doubt be significant. These would include but are not limited to:

- Curriculum development and implementation

#### From a Nepali perspective:

- Financial issues, cost of course, affordability



# NEPAL

## (CONTINUED)

- Entry requirements for university course
- Hierarchical and seniority issues versus competence based selection

### From an international perspective:

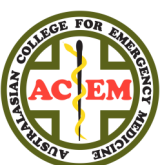
- A Memorandum Of Understanding (MOU) to be drawn between the Nepal Emergency Nursing 'Taskforce' and the Australasian Emergency Nursing Team.
- An Australasian Emergency Nursing Support Network is suggested. The workings and role of this need to be discussed further.
- Support from Australasian Nursing organizations is suggested, this too needs to be discussed further.
- Funding for Australasian emergency nurses travelling to Nepal.

## SOCIAL MEDIA

This can be an important vehicle to increase awareness and stimulate further interest, both in Nepal and internationally and it may help in the aim of increasing numbers of prospective Australasian emergency nurses who may come and support the program in Nepal.

For example:

- Via Facebook "Supporters of Emergency Nursing Nepal" page
- Potentially Twitter
- [Linking in with www.NurseTeachReach.org](http://www.NurseTeachReach.org)
- ISTIH.org website and Facebook page



## THE EARTHQUAKE, 25TH APRIL 2015

What was forewarned for many years and discussed only one week prior by a Nepali government minister and the Director of the Hospital Preparedness for Emergencies (HOPE) program at 3rd NEMIC, finally struck.

The capital city and surrounding valley was turned into a site of devastation and tragedy in a matter of moments with a massive quake of 7.8 on the Richter scale. Over 9,000 people were killed, more than 23,000 injured and nearly a million people were displaced.

Members of the NurseTeachReach team were still in the country on project work and returned to Kathmandu soon after the earthquake to provide emergency assistance and medical supplies with tens of thousands of dollars of donations made to NurseTeachReach.

Their work undoubtedly benefited the patients they saw although the disaster was overwhelming.

What Nepal lacks in resources and infrastructure, is balanced with a tenacity of spirit and community strength. It is not only an amazing country aesthetically but also in human endurance.

## THE FUTURE?

Unfortunately the earthquake also caused all the momentum built during the 3rd NEMIC to be placed on hold. Priorities shifted to the reality of mass casualty and widespread building instability.

Things have started to settle in the aftermath and we look forward to the re-ignition of planning and eventual implementation of a national EN training program. This will not be easy and will take time but with support and leadership, it will happen.

## PERSONNEL

### 3rd NEMIC – 13-19th April:

#### *Australian delegates included:*

- Margaret Murphy, Clinical Nurse Consultant, ED, Westmead Hospital, Senior Clinical Lecturer, University of Sydney
- Lucy Rowe, ICU nurse, Sydney and Director of [www.NurseTeachReach.org](http://www.NurseTeachReach.org)
- Megan Wake, Clinical Nurse Educator, ED, Royal Adelaide Hospital
- Lisa Lucas and Travis Cole, Nurse Educators, ED, Townsville Hospital
- Bridie McIlroy and Stephanie Sinclair, Registered Nurses, ED, St. Vincent's Hospital, Sydney
- Supported by Jane Montgomery, Implementation Manager, Clinical Redesign Project Implementation, Agency for Clinical Innovation, Sydney



**Lucy Rowe, NurseTeachReach**

#### *Nepali delegates included:*

- Tara Pokhrel, President of Nursing Association of Nepal Central Committee

- Daya Laxmi Joshi, President Nepal Nursing Council
- Ishwori Devi Shrestha, Chief Nurse Administrator, MoH, Nepal Government
- Nira Pandey, Nursing Campus Chief, Institute of Medicine, TUTH
- Kopila Shrestha Palikhe, Nursing Director, TUTH
- Dhama Laxmi Shrestha, Senior Nursing Supervisor, Emergency Service, TUTH



**Dhama Laxmi Shrestha, Senior Nursing Supervisor, ED at TUTH. "Education is the most powerful weapon which you can use to change the world" Nelson Mandela**

#### *Medical Supporters of Emergency Nursing Training in Nepal include:*

- Ramesh Maharjan, emergency physician, Director of NCEM and NADEM, 3rd NEMIC 2015 coordinator
- Subhash Acharya, intensivist and anaesthesiologist, co-ordinator of the Critical Care Nursing Training Program, TUTH.
- Brian O'Connell, MICGP and Emergency Fellow, Royal Prince Alfred Hospital, Sydney
- Chris Curry FACEM, Perth. International Coordinator of Nepal Emergency Medicine programs



# NEPAL

---

## EARTHQUAKE!

*The 7.8 magnitude earthquake struck Nepal on 25th April, ANZAC Day. Chris Curry gathered a daily narrative of information from many sources to email to concerned parties in Nepal, ANZ and elsewhere. The log closed on 6th May, when the Australian Embassy in Kathmandu closed the relief camp in its grounds.*

**A Running Account of Emergency Medicine Response to the Earthquake in Nepal: 25th April – 6th May** is an abridged version available at [https://www.acem.org.au/getmedia/5c79776c-995a-4767-9a86-1b685f50760d/Nepal\\_Earthquake\\_25-April-to-11-May-2015.pdf.aspx](https://www.acem.org.au/getmedia/5c79776c-995a-4767-9a86-1b685f50760d/Nepal_Earthquake_25-April-to-11-May-2015.pdf.aspx)

---

---

## Personal accounts from the scene

*Mel Venn, advanced trainee at B.P. Koirala Institute of Health Sciences (BPKIHS) in Dharan, and Gaynor Prince FACEM, who had both attended 3rd NEMIC, were in the Khumbu Valley on their way to Everest Base Camp when the earthquake struck. They provide personal accounts of their engagement in the Khumbu and subsequently in Kathmandu:*

---

---

## Earthquake! - from Namche Bazaar

*Mel Venn*

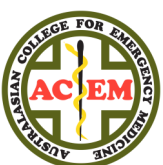
[mel.venn@gmail.com](mailto:mel.venn@gmail.com)

---

## ANZAC DAY 2015.

It was day three of our Everest Base Camp trek, and a group of 16 strangers were getting to know each other. The weather was cold and wet, so our guide postponed our acclimatisation walk and we wandered into Namche Bazaar to browse the shops. Passing prayer wheels, narrow cobblestone laneways, homes of varying size, shape and construction, we were amazed by the vibrant and beautiful clothing of the locals. And then we heard a loud rumble, like someone shaking sheets of roofing iron, and I felt dizzy and stumbled... only to realise the three of us felt the same thing – it wasn't altitude sickness, the ground really was moving under us.

**“Earthquake!”** We ran through the narrow laneway out into an open field, hearing screams, crashes and a low pitched rumble, the ground continuing to shake beneath us. The two-storey building we had just passed swayed wildly and great cracks opened up. A long low building beside us collapsed, revealing the rooms inside. Tachycardia, tachypnoea, tremor, urgency, don't panic. Sometimes good to have an emergency medicine background – in emergencies the instincts kick in, I can switch off the self-concern, try to stay calm and get on with the job. Muster people away from buildings and into the open. Calm people down. Make sure each family group is accounted for, no-one left inside. Scope the crowd for injuries. And then we realised that half the group was still behind us – still between the now-cracked and fallen buildings? Eventually they caught up, with a tale of lying on the shuddering ground, holding onto grass and tree-roots on the steep switchback descent into town.





All safe and accounted for. Soldiers and military police streamed from the base above us, into the streets of the town. After half an hour our guides moved us up to another open space, near the museum.

Communications were sketchy. 3G and SMS intermittent, people trying to find out what was going on, to get messages out to their families. Our Indian friend had better luck. 7.8 Richter, west of Kathmandu, felt from India to China. People dead, houses destroyed.

Our hotel was damaged, but there was a “safe” path back to it. The room I was sharing had been destroyed, our gear buried under a ton of rubble. The Sherpas retrieved our things.... a dent in my “Om” pendant, a small hole in my sleeping bag, fine dust in everything, my bed completely flattened. We changed rooms and speculation continued. How big was the earthquake? How many died? Are there casualties here? Can I go to the clinic yet? Will the trek be cancelled? Can we keep going? Is our hotel safe? We stayed another night there, in a new room with a door direct to the outside – at a tremor in the night my roommate was out the door before I even realised what was happening.

Next day we were back up in the open field, helping the man whose house had collapsed beside us – clearing rubble and reinforcing the roof. Tents and makeshift tarpaulin shelters started popping up in open spaces. The majority of smaller local houses, built of rocks and mud-mortar, had sustained some damage, along with the local monastery, many of the hotels and guest houses, the museum and shops. Some locals were nonchalantly staying in their homes, others had salvaged what they could of their belongings and had moved under canvas.

I visited the local health post which was manned by a local doctor, nurses and a visiting American nurse

volunteer. No deaths that they knew of, a few minor injuries treated, and nothing I could do to help.

Three days in Namche Bazaar, and then we got an urgent call that our helicopter evacuation would be ready in 20 minutes. A half-hour walk away, 400m above town. With no porters to carry our luggage. Exhausting jog uphill with our duffel bags. Exhilarating chopper flight to Lukla, jammed into the back, sitting on luggage because the seats had been removed to evacuate the dead from Everest the day before. Landing in Lukla, one of my trekking colleagues was horrified to stumble over one of the bodies lined up on the runway.

Three days in Lukla, hanging out in the hotel and local cafes, trying to find decent Wi-Fi, avoiding the horrors of tabloid TV replaying the worst footage they have, waiting for good enough weather to fly.

## KATHMANDU

Our flight slot came up on April 29th. Kathmandu airport looked more like an army base than an airport – there were more military planes and helicopters than commercial airliners. Huge stacks of aid supplies surrounded the terminal. Government representatives wearing high-vis vests and waving flags met travellers as they arrived and discussed arrangements for emergency accommodation and evacuation.

Driving out of the airport we noticed that the adjacent golf course was now a camp ground. Pashupatinath temple and cremation complex was far more crowded than usual, smoke billowing. In some areas there was complete devastation, buildings reduced to piles of rubble, spilling out over footpaths and onto the road.



# NEPAL

**(CONTINUED)** In other areas, it looked like business as usual. At one point the road had dropped by a metre.

The bus transferred us to a makeshift camp in the grounds of a fancy Kathmandu resort. The first hot shower in a week turns out to be an icy cold splash. My group left in dribs and drabs as flights recommenced.

What to do? Stay here and try to help? Get out of Dodge and go back to my position at BPKIHS in Dharan? Chris Curry's daily emails advised us that hospitals had sustained little damage, and were initially inundated with patients, but were now getting things under control. The Israeli and Indian field hospitals were in full swing treating trauma cases. I had some local connections, having spent a week in Kathmandu at the 2015 Nepal Emergency Medicine International Conference (3rd NEMIC) just prior to trekking, so I made calls and tried to find something useful to do.

By now it was Day five after the 'quake, and the international aid effort was well under way, but hampered by damage to the Kathmandu airport runway, the sheer amount of traffic trying to get in and out, and difficulties getting good logistical information from affected areas outside the Kathmandu Valley.

I contacted Ramesh Maharjan (Emergency Medicine Consultant, Tribhuvan University Teaching Hospital (TUTH)) and Ajay Thapa (Head of Emergency Medicine, Grande International Private Hospital) and both told me they no longer had large numbers of new patients, but that many patients were awaiting orthopaedic, general, and neurosurgical operations.

The upshot was that they had enough local staff in the ED and didn't need volunteers.

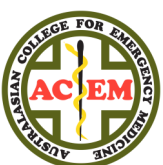


*Ajay Thapa DMEM, Mel Venn, and a Red Cross volunteer in the Kathmandu Valley*

## **NURSE-TEACH-REACH**

I caught a cab into the inner suburbs to meet with Lucy Rowe and the NurseTeachReach (NTR) team. Lucy, an Australian ICU nurse, set up NTR three years ago to provide critical care and emergency nursing education and mentoring. She has spent up to five months a year in Nepal since then, and at that time had a team of six volunteer nurses from Australia, the Netherlands and the UK working at TUTH and Grande. She was a key contributor to the 3rd NEMIC meeting and had been successful in lobbying the Nepal Nursing Council to establish an emergency nursing specialist training program.

In the first days after the earthquake these nurses worked in the ED (evacuated to the carpark!) at TUTH. They were familiar with the staff, the system and processes, and although most don't speak much Nepali, were able to assist the local staff to deal with the huge influx of seriously injured patients. As the days went on, patient presentations returned to normal, and things at TUTH gradually came under control. It wasn't appropriate to return to teaching, and offers to help other organisations were turned



down, so the NTR team changed tack and started collecting and distributing medical supplies.

NTR headquarters was based in a block of flats, where the team lived, and looked more like a supply room/dispensary than an apartment. They were raising money, purchasing medical supplies, filling the wish-lists of small hospitals that had not yet received any aid, making up large and small first aid kits, and distributing these supplies. Cash flow was a big problem – the pharmacies only accepted cash, and the maximum daily ATM withdrawal was NPR 40,000, about AUD\$570. Bank withdrawals were challenging for foreigners at the best of times, and almost impossible now. None of us had a Nepali bank account, and we had heard rumours that international cash transfers might be seized and put into the Government Prime Minister's Earthquake Fund.

The team was using Western Union transfers to get cash, about \$5000 a day, but it looked like this avenue might close, with rumours that the Government was trying to control cash coming into the country, and had ordered banks not to restock Western Union with cash.

It felt a little surreal, like a guerrilla operation. The largest Nepali note is the equivalent of \$10, so you can imagine the mass of paper being moved around. Flagging down taxis and loading them to the roof with boxes of supplies, then lugging them through alleyways and up stairs. Lists were checked off, kits and requests sorted and distributed. Despite the apparent chaos the system was working, and Lucy knew exactly what had gone where.

#### **DELIVERING SOME AID**

The following day we loaded up a van with first aid packs and headed to the hill village of Nagarkot,

about two hours drive from Kathmandu, on the edge of the valley. Ramesh Maharjan and his NADEM team had obtained permission from the Ministry of Health and Population (MoHP) and arranged a community clinic and First Aid training.

Two Dutch paramedics came along with us. They had come to Nepal fully self-sufficient, with stocked first-responder backpacks, food and even cartons of water, and had been joining other teams and helping where they could. They, and two NTR nurses, formed two teams and headed into the hills to nearby villages looking for people who required aid.

Our First Aid students were an enthusiastic and attentive group of school students, from about 8 to 15 years old, with some curious parents looking on. Ramesh Maharjan is a great teacher - lots of interaction and acting out various signs and symptoms – and he got a lot of laughs from his pupils. They moved to hands-on sessions on treatment of simple wounds, splinting and bandaging, while I started helping with the clinic, with the help of some medical students and junior doctors.



*Schoolboys learn First Aid, Nagarkot, Kathmandu Valley*



# NEPAL

**(CONTINUED)** There were a few earthquake-related injuries – limb haematomas, minor wound infections, sprains, an ill-fitting cast on a broken ankle – but most cases were exacerbations of chronic illnesses like COPD and GORD, and stress reactions causing nausea, dizziness, fatigue and headaches. Removing a cast with only the saw on my pocket-knife was quite a challenge!

The teams who went to the villages reported similar cases. One local boy asked us to go to his village, where they had yet to receive any aid – it was 12 hours walk from Nagarkot, so plans were made to return another day.

A group of Israeli volunteers from CARE arrived and came to speak to Dr Maharjan and the local village leaders about their plans to provide psychological support, particularly to children in the area.

The NTR team went on to distribute more medical and first aid supplies, and provided first aid training and clinics in the severely affected area of Bhaktapur.

The following day I met with Gaynor Prince FACEM. We went to Grande Hospital to meet Ajay Thapa and discuss plans for a medical mission to the severely affected areas of Gorkha district. It was very hard to get information about what was already happening on the ground, and what the specific needs were, and after extensive discussion we decided that we could be more helpful joining existing teams, rather than trying to mount our own mission. Teams heading into these areas needed to be fully self-sufficient, with their own food, water, shelter and supplies, and the ability to carry these for extended periods on mountainous tracks in order to get to the more remote villages.

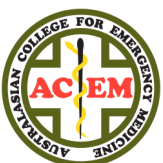
I joined Ajay Thapa, assisting his Lions Club colleagues in Taudaha, Lalitpur, near the edge of the Kathmandu Valley, building bamboo temporary shelters and digging latrines. This was a great opportunity to meet and work alongside local people in their village, and it felt good to be doing something, however small. The children thought it was hilarious to see a blonde white woman getting dirty digging holes with them. I was humbled to be served lunch by local village women, harvested from their fields and prepared in their tarpaulin shelter– incredible generosity in the face of such loss.

## BACK TO BPKIHS

I returned to BPKIHS in Dharan on 5th May, to resume my posting in the ED. It felt very much like business as usual, and you could be forgiven for not even knowing the earthquake had occurred. Some of the buildings had sustained cracks in plaster and paint, but there was no significant evidence of the disaster. A second earthquake occurred at lunchtime on 12th May, which we felt as strong lateral shaking that went on for about a minute, with small subsequent aftershocks. That morning in the ED had been a particularly tough one, with the deaths of two patients, and a young patient sustaining a severe hypertensive intracranial haemorrhage. I remember feeling quite overwhelmed, burnt out from months of confronting work and the interruption of my much-anticipated trekking holiday.

## EPILOGUE

A month later I was back in Kathmandu. Even then, it was hard to say exactly who did what, where and when, in the first days after the earthquake. WHO, UN World Food Program and USAID had released fact sheets on Western aid, but it was very difficult to find information regarding Nepali Government initiatives.



There were still daily articles in the newspapers reporting on villagers who had yet to receive Government aid. The system for distribution of Government aid had not been clarified, and most processes required identification cards that large groups of the affected population no longer had.

In Kathmandu the rubble of many buildings remained in situ, while others were being demolished and bricks hauled through the narrow streets in baskets. There were tight restrictions on demolitions, and a ban on all new construction. Debates went on in newspapers, parliament and the streets about the best ways to reconstruct, how to police building codes, where to get the money or labour for rebuilding.

More than a million young Nepali men were working as labourers in the Middle East, but despite the often slave-like conditions there, the draw of money kept them from returning home.

The loss of income from tourism is expected to be in the millions.

Throughout the crisis, Chris Curry's daily update emails were a lifeline, connecting people around the world and providing information otherwise unavailable. His advice, support and no-doubt hard-earned wisdom have been priceless, and I am very grateful to have had him as my supervisor for this challenging term.

---

## Earthquake! - from Tengboche

Gaynor Prince

[princegp@yahoo.com](mailto:princegp@yahoo.com)

---

### 25TH APRIL 2015

The day started with a flask of hot milky tea and a steaming bowl of porridge. I was on my way to Everest Base Camp. Khumjung to Pangboche lay ahead, a steady stroll but not too arduous. Cold rain fell outside. Up the hill, towards Tengboche, snow landed gently on my shoulders. It was a relief to stop at the bakery in Tengboche. I was cold and couldn't wait for my bowl of steaming chicken soup. Little did I know that I would never have the pleasure of sipping it. Suddenly, my soup started shaking and spilled over the table. The building groaned. Rocks popped out of the unmortared walls, one by one, until the wall lost integrity and crumbled.

**EARTHQUAKE!** Racing, I made it to open ground in time to watch monastery walls disintegrate.

7.8 magnitude on the Richter scale. Epicentre in Ghoroka, 70 km from Kathmandu. Widespread destruction. We knew none of this for many hours, however. Communications were down. A text every now and then was all we could hope for. Decision-making is a tedious process when you don't have instant access to information. Time slowed down. Luckily Tengboche was as safe a place you could be in an earthquake, perched on top of a hill in the big Khumbu Valley, safe from landslides. We decided to stay put overnight and found a teahouse made of wood to ease our shaken minds.



# NEPAL

**(CONTINUED)** Over the next couple of days we made our way to up the valley. We had heard that Everest Base Camp had been hit by an avalanche. My trekking partner Raj Joshi had many friends preparing to climb Everest, so we set out to find out how they were. After a stressful few days we met up with his friends, who were shaken but thankfully unharmed. We had hoped to help out at the Pheriche health post, but the 6.8 magnitude aftershock delayed our departure, and the helicopter service to Base Camp started early the next morning and was very efficient – 73 patients out to Lukla or Kathmandu in five hours!

Our walk back down to Lukla took us past several villages that were badly damaged. The earthquake occurred on a Saturday at midday whilst most people were outside, so the number of injuries was lower than expected. After a delay in getting out due to a trekker bottleneck in Lukla, we arrived in Kathmandu.

## KATHMANDU

Expecting devastation in Kathmandu, we were surprised to find it functional - running water, electricity, transport and telecommunications. We managed to find ourselves a safe hotel and had a hot shower!

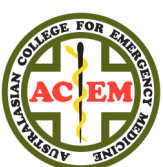
Over the next few days I set out trying to understand how I could help in the post 'quake relief effort. As an independent doctor, this was not an easy task. You need certain resources to be able to help in a disaster zone. Most importantly, you need to be able to look after yourself regarding shelter, food and water, so as not to burden an already declared disaster area. I was lucky enough to meet up with

the South African disaster response team, Gift of the Givers, which had been in country for a week by then. They were very welcoming and I joined their team, heading out into the hills doing primary health clinics in devastated areas. By this stage the emergent post earthquake medical needs were minimal and the Gift of the Givers team decided to head back home.

We were then fortunate enough to join up with Amelia Hillary, Sir Ed Hillary's grand-daughter, and Team Rubicon from the USA. They were taking relief aid, mainly food and shelter, into the Solu-Khumbu region. Our main problem was getting accurate information about needs on the ground. Word of mouth, I realized, was extremely unreliable. The only way to get information was to visit the areas assigned to the team. We headed into the hills, providing acute medical assistance as required. After a few days, a day's drive from Kathmandu, we returned with information so that aid could be distributed appropriately. The major requirement was for shelter. Being subsistence farmers, many villagers had food stocks for a few months.



*Extra hands – Gaynor Prince with Team Rubicon delivering food aid*



## ISSUES

Issues that we encountered included:

- Poor roads - usually in a bad state but a lot worse with landslides, rock falls and cracks in the road.
- Access issues - some of the villages in the district had been cut off by landslides and could only be reached on foot, a five to seven hour walk. These issues were potentially solved with the use of helicopters, but there were limited numbers in the country. Sadly the Nepali Government did not help on this front, declining three Chinook choppers sent by the British Government to help in the relief effort.
- Destruction of houses.
- Each district is supposed to have a health post with varying staff depending on the district. Most of the health posts were completely destroyed in the quakes and the health workers had left to attend to their families in other villages.
- Many of the schools suffered the same destruction as the houses.
- Decimated villages. This posed a real problem as monsoon season was a few weeks away and the only shelters most people were able to get their hands on were tarpaulins. These were great for sheltering from the sun, but are not a match for monsoon storms.
- Tensions due to mal-distribution. The Army had to be deployed to set up distribution stations as villagers started fighting because aid wasn't reaching some areas. Some aid trucks were being looted en-route and subsequently not delivering aid to appropriate areas.

- Some areas were getting two or three aid teams to them due to lack of coordination. Scarce resources were being wasted.



***A badly damaged hill village***

Co-ordination in a disaster is a major issue. There is a spider's web of involved stakeholders, including military, civilian, local, foreign, experienced and inexperienced. Local politics plays an enormous role in management of disasters. In times like these there are usually communication issues that add to the co-ordination problems. Communication was an issue for the first couple of days in Nepal, but this was reasonably quickly resolved, making for an easier situation in a disastrous time.

The spider's web of stakeholders: here are a few anecdotes about relief teams, and particularly medical teams.

### **NEPALIS HELPING NEPALIS**

This is a multi faceted topic, starting with the man on the street. We met a Nepali night club owner who realised that there was a high likelihood that aid would take too long to reach the people if they waited for a Government response, so he took it upon



# NEPAL

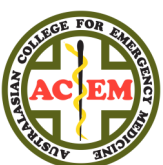
(CONTINUED) himself to organise his friends and to start taking aid out into the field. Their communication was via Facebook and subsequently friends of friends joined the group until his group comprised more than 1,000 members. An incredible effort on its own, that made a significant difference to those affected. Central coordination, however, was lacking. He did not want to tie into any coordination teams as he felt things would move too slowly. Subsequently there was of overlap of aid in some areas, leading to mal-distribution and resultant tensions. This highlights the issues with Nepali administration and how politics and administration directly impact disaster response in individual countries, making each country a unique situation.

Many Nepali doctors (mostly junior doctors) in various hospitals around the country leapt wholeheartedly into the relief effort. They left their daily jobs, filled trucks up with relief supplies and made their way into the hills. Admirable and brave, but this had consequences. The jobs they left were subsequent voids in a medical system already under significant pressure to function adequately on an everyday basis. Due to these holes, the daily loads in hospitals were sub-optimally managed. This is a natural progression in a disaster situation, you may say. Agreed. However, if coordinated better, an ideal would be for the Foreign Medical Teams (FMTs) to step in and fill the void in the hills so that fewer local doctors have to leave their jobs. A major logistical flaw in this is that most FMTs do not speak Nepali. The issue of interpreters should be addressed in disaster planning.

## FOREIGN MEDICAL TEAMS

Foreign medical teams (FMTs) present a spider's web within the spider's web. My experience was with smaller FMTs. I was able to join them only after the emergent medical need had passed. It was interesting to be a part of primary health care clinics in areas that, from word of mouth, had an apparent earthquake-related medical need. Once we got to the villages and started working, it was obvious that there was very little earthquake-related medical requirement. The overwhelming need was for standard primary health care. A discussion is then raised as to whether you should provide primary health care to areas that likely had very little primary care pre-earthquake. Are you helping or hurting? In most of these situations local expectation extends beyond what most FMTs can provide. After much deliberation I realised that in a country devastated by a natural disaster, a caring heart with no unnecessary intervention was acceptable. It also allowed us to monitor for potential outbreaks, diarrhoeal and respiratory, and to educate regards sanitation and water.

The earthquake in Nepal was managed as well as expected initially, with local doctors, nurses and medical assistants working around the clock treating fellow countrymen. The political impingement became painfully obvious when this acute medical requirement had declined and aid assessment and distribution became a focus. Indecision and lack of leadership from the Nepali Government led to inefficient actions and prolonged suffering by the Nepali people as they waited in the rain for shelter. An example of this surfaced after the second earthquake. We helped one of the local emergency physicians, Ajay Thapa, in evacuating their hospital. They did not have adequate shelter for patients, so we spent many hours locating tents. When we finally found some through WHO and the Ministry of Health,





we were given one when our need was for four. We had to transport the tent from the warehouse to the hospital, not a light undertaking as this was a large tent. When we arrived at the warehouse we discovered it was full of brand new tents still in boxes. On asking for additional tents, we were told it was too late at night (11pm) and paperwork needed to be filled in if more tents were to be dispatched. The following morning our request was declined as the hospital we were helping was a private hospital and there were rumours that some private hospitals were charging patients for medical management. The Government had agreed with hospitals to cover the costs of all earthquake-related injuries, that is, both public and private health care charges. Subsequently, due to rumours, the patients under tarpaulins suffered while a warehouse remained full of new tents.

## CONCLUSION

Disasters are challenging situations for all involved. The struggle is trying to do the greatest good for the greatest number of people. It requires a professional, coordinated, well-oiled response. Only through collaboration, communication and sharing strategies of disasters already managed can we improve for future responses.



**Gaynor Prince**



# IRAQ

## The Iraqi Paediatric Life Support Course

Abdul-Razaq Musa

[Abdul.Musa@sa.gov.au](mailto:Abdul.Musa@sa.gov.au)

[www.iplscourse.com](http://www.iplscourse.com)

*This report contains a summary of the first Iraqi Paediatric Life Support (IPLS) courses we ran in Iraq from 25th May until 5th June 2014. Location: Children's Hospitals in Basra, Thi-qar and Maysan provinces, Iraq.*

Iraq has unique historical, political, cultural, religious and socio-economic characteristics. It has been involved in many wars and conflicts that have impacted on all aspect in life, including the health care system. Despite the high level of casualties from the ongoing terrorist crimes against civilians and from other causes of trauma like road traffic accidents, currently there is no standardized, locally administered, regularly available resuscitation course in Iraq. Although the responsibility for resuscitation training rests both on healthcare professionals and on policy-makers, this vision has been lost amid the above-mentioned challenges.

The ability of any healthcare worker to respond to an infant or child in respiratory or cardiac arrest or those who appear seriously unwell is a vital skill and a key competency. However, the reality is that these staff may not have the knowledge, experience or skills to respond to life-threatening events. Inadequate responses to paediatric emergencies in developing countries contribute significantly to preventable paediatric morbidity. Retention of the resuscitation skills obtained from any course and their application into day-to-day practice in another problem.

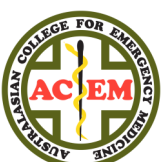
The IPLS course is a three day course. The first two days cover aspects of paediatric resuscitations that are suitable for developing countries, using a mixture of lectures, videos, skill stations, round table teaching methods and clinical simulation scenarios. These focus on the management of cardiac arrest in children as well as the management of the seriously unwell child. The IPLS course also teaches clinical simulation scenarios and non-technical skills for the resuscitation team like leadership, effective communications and task allocations. The IPLS course has been modified to suit developing countries, requires minimum equipment, could be administered locally in any health care unit and is offered free of charge.

Sixty candidates successfully completed the first IPLS courses that were delivered at three Children's Hospitals in Basra, Thi-qar and Maysan Provinces in Iraq from 25th May – 5th June 2014.

IPLS candidates were a mixture of senior medical staff (paediatricians, paediatric trainees, general emergency physicians, anaesthetist and intensive care consultants) and nursing staff (ICU, ED, Neonatal ICU and Paediatric wards). This interdisciplinary mixture of health professional was important to break the hierarchy of the medical system in Iraq and to remove the boundaries between medical and nursing staff.



**Recruiting IPLS instructors in Melbourne**



As pre-course reading material, the IPLS course utilized with permission the Australian Paediatric Life Support manual. <https://www.apls.org.au>.

For the practical section, the IPLS course used the round-table teaching method of the Resus4kids course to teach its candidates the Danger, Response, Send, Airway, Breathing, CPR, Defibrillation (DRSABCD) approach, which is taught with a 'pause and discuss' format in a low-fidelity, simulated learning environment. This enables each participant to be the leader for a specific part of the process. [www.resus4kids.com.au](http://www.resus4kids.com.au)

This three day IPLS course was repeated three times, in three different Children's Hospitals in three provinces, over a two week period. In order to increase the pool of IPLS faculty and trainers in Australia, we also ran an IPLS course in Melbourne for seven health professionals (cardiologist, ED physician and GPs) who have an Iraqi background.



#### ***Iraqi IPLS trainers demonstrate their competence***

To ensure sustainability of the course and continuation of training to other health professionals in Iraqi hospitals, we followed these three steps:

1. Train the trainers: 18 out of the 60 candidates were selected and received further training so they became local IPLS trainers. We now have

six trainers, a mix of medical and nursing staff in two out of the three provinces we visited.

2. All the relevant teaching materials, both in electronic form and hard copies as well as a box containing all the necessary equipment to run the course, were provided to each hospital.
3. The application of clinical simulation scenarios in the regular education programs in paediatric wards and emergency departments.
4. Agreement with the relevant Health Authorities to ensure the training continues and is delivered to other health professionals in their Province.

The first sign of IPLS sustainability came from Meesan Province as the local IPLS trainers provided two IPLS courses to 6th year medical students and to the newly graduated interns. Another IPLS centre was opened in Thee-Qar province on 1st May 2015, and will deliver its first IPLS course that is run by the local trainers soon.

We believe the IPLS course suits the needs of any developing country where resuscitation training is scarce or non-existent, as it requires minimal equipment, can be delivered locally in each health facility, is suitable for both under- and post-graduates (medical and nursing staff), and is based on the utilitarian idea of "pay it forward". It has been developed by a number of paediatric emergency physicians and senior health professionals in Australia and Iraq. Without their efforts, this course would not be a reality. We would like to thank APLS Australia and Resus4kids for allowing us to use their manual and round-table teaching methods respectively.



# IRAQ

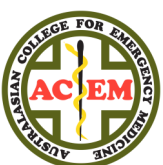
(CONTINUED)

**Future plans: the IPLS course faculty is planning to:**

1. Deliver the IPLS course into other Children's Hospitals in new three Provinces in Iraq in 2015.
2. Support the local IPLS trainers to provide the course on a regular basis to other health professionals.

## **IPLS Faculty**

- Abdul-Razaq Musa, Jeremy Raftos, Fran Lockie: paediatric emergency physicians, Women's and Children's Hospital, South Australia.
- Akeel Alwaeli, GP in Australia; Senior Lecturer at Maysan University in Iraq.
- Sarah Ahmad, GP Northern Clinic, Para Hills, South Australia.



# SOUTH AFRICA

## Emergency Trauma: The South African Experience

Kevin Ostrowski

[kostrowski@gmail.com](mailto:kostrowski@gmail.com)

Groote Schuur Hospital is located in the heart of Cape Town, a city well known for its beauty but also for its extremely high crime rate. Most recent statistics show that violent crime is much more prevalent in Cape Town than in Johannesburg and the rest of South Africa. Cape Town's murder rate is one of the highest in the world. Most of the violent crime takes place in districts outside of the city called the Cape Flats, which are notorious for being overrun with gangs and violence. This is a major problem for the city; however, it does provide an enormous amount of work for the trauma department. I decided to venture to Cape Town and do a term at Groote Schuur Hospital after hearing from colleagues about the incredible experience that could be gained from working there.

The process of organizing the rotation was fairly challenging, taking nearly two years. The rotation was coordinated through the University of Cape Town, although gaining full registration through the Health Practitioners Council of South Africa is required and can be a fairly involved process. Along with plenty of visiting overseas medical students, there are up to a dozen overseas visiting doctors per year doing similar rotations in the trauma department for varying lengths of time.

Emergency care is structured differently in South Africa than in Australia. When emergency patients are brought to Groote Schuur Hospital, they are determined to be either medical or trauma upon arrival and then they are directed to their respective emergency departments. Shifts in the trauma department are long – 11 hours for the day shift and

15 hours for the night shift. Generally there are two or three trauma registrars working simultaneously as well as a few medical students and an occasional intern. The trauma registrars spend the majority of their time in the resuscitation area with the higher acuity patients, while the interns and medical students run the lower acuity area. There is also a "Cutting Registrar," an advanced trainee in trauma surgery, who is on call somewhere in the hospital at all times. However, they tend to spend much of their time in the operating theatre. The trauma consultants are generally on site during the daytime hours and have twice daily teaching ward rounds.

Patient flow throughout the department can be very different from that in Australia. Most noticeably, there is a marked contrast between the weekday shifts and the weekend. While at times still busy, the weekdays tend to be manageable with only a few major resuscitations throughout a typical shift. In comparison, the weekend night shifts can be chaotic. Most of the action at the trauma unit tends to kick off Friday night at around midnight. It goes right through until Monday morning, and normality does not usually return to the department until Tuesday once the backlog is cleared out.



*Preparing the corridor for the weekend rush*



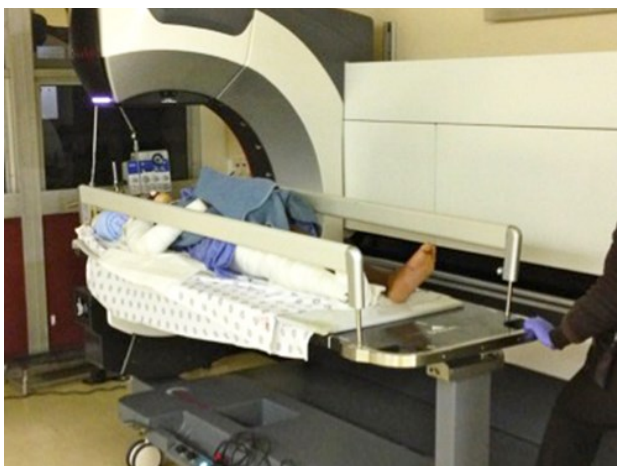
# SOUTH AFRICA

**(CONTINUED)** During the busy times there are sometimes multiple simultaneous resuscitations of critically injured patients. Staffing and space are at a premium. In the resuscitation bay designed for six patients there might be more than 12 patients, with many on ventilators.



*Space at a premium in the resuscitation bay*

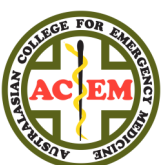
These problems are compounded on the notorious payday weekend shift that happens every month and can have a dramatic rise in emergency presentations. Additionally, without the constraints of the National Emergency Access Targets (NEAT), there is much less urgency for rapid patient turnover, so the process of ordering imaging, bloods and other investigations can be painfully slow.



*The Lodox (full body XRay) scanner in action in the resus bay*

As one might expect, working in the department can be confronting. The level of gang violence was dramatically worse than what I had even expected when I entered the rotation. A Saturday night may have 10 or 15 gunshot wounds, 30+ patients who have been stabbed, as well as some dramatic major vehicle accidents involving heavily intoxicated drivers and the passengers not wearing their seatbelts. I found the most vicious of the attacks were the “community assaults”, which is a form of vigilantism widespread throughout the townships. The state police seldom patrol the townships for a variety of reasons: personal danger to themselves, lack of resources and a level of distrust of the police left over from the apartheid regime. Thus, the community takes the law into its own hands and punishes those suspected of causing problems in their community by using violence. The severity of these beatings was shocking. Invariably the patients had depressed skulls fractures, crush injuries and severe traumatic brain injury, if not death, as a result. Despite the brutality of these beatings the police were rarely involved as the beatings are often thought of as a just punishment and a warning to others in an effort to keep order within the communities.

Most of the patients in the trauma ward were young males aged 18 to 30 from the Cape Flats, an area of Cape Town where the black and coloured population was resettled during the apartheid era. The tattoos and scars on their bodies told a story of a life of crime and gang violence. They would commonly have laparotomy scars from their abdominal gunshot wounds they were treated for last time they were in hospital. It seems at times that the violence here is accepted as a way of life and it seems as though families were not surprised to find their children end-ing up in hospital. Despite this, the skill and level of care provided to these patients was exemplary, especially considering the level to which the available resources were stretched.



Overall, this post was a great opportunity as an emergency trainee to develop my clinical skills in trauma resuscitation and management. I learned a vast amount from the knowledgeable registrars, consultants and nurses. To my knowledge, there have not been any other active ACEM trainees working at Groote Schuur Hospital trauma unit recently, the path for getting an ACEM accredited special skills advanced trainee post at the hospital is possible.



**Ward round with Prof Nichol, Director of Trauma**

My term ended up not being accredited by ACEM due to delays in the South African registration process, so my best advice would be to start planning early and remain patient. Foreign doctors visit quite frequently and the hospital is always more than accommodating for additional trauma registrars on their roster.

For further information please don't hesitate to contact me at [kostrowski@gmail.com](mailto:kostrowski@gmail.com).

---

## An Emergency Medicine Opportunity in Kwa-Zulu Natal

*Sandy Inglis*

[isinglis@gmail.com](mailto:isinglis@gmail.com)

---

We've just driven for five hours returning from a dramatic trip to the game reserves of northern Kwa-Zulu Natal (KZN). Only yesterday, as the golden globe climbed up behind the acacias, we were dramatically surprised by a hungry looking pride of lean young lions. We were on our way out of the park, not far from the camp, when they sauntered around a tight bend in the road, only metres from our front bumper. Breathless, we watched the five lions as they sauntered past us, their glaring eyes seemingly devouring us, and our hearts raced as these beautiful cats drifted off into the fresh dawn. Later that day we were 15 metres underwater scuba diving at the world renowned Sodwana reef, gazing at gliding turtles and insanely coloured tropical fish, as we drifted over chandelier-like coral.

And now I arrive for my shift in Emergency Department (ED); unshaven, flushed and exhilarated. I am head of department of a growing ED near Pietermaritzburg in KZN, South Africa. We have grown from a cluttered casualty into a purpose-built ED with five specialists, video laryngoscope and state of the art USS machine!

The 3pm handover seems reasonably ok. A few fractures await management; an elderly lady on bi-level positive airway pressure for her chronic obstructive pulmonary disease is getting better; a 12 year old lad with a snakebite on his foot has had the dangerous tourniquet removed and the swelling is resolving; the two year old dropped by granny has a



# SOUTH AFRICA

**(CONTINUED)** forehead abrasion but seems otherwise fine and non-accidental injury seems unlikely; and finally, the pedestrian hit by a taxi has had his pan-scan which shows his pelvic vertical shear fracture and free peri-sigmoid air and is on his way to the operating room.

But then things start warming up. A 260kg man has crashed his pick-up into the back of a truck. Apparently he fell asleep at the wheel. His injuries seem trivial; an abrasion on his knee and some chest tenderness. But his weight betrays him and creates obstacles at every turn and within 24 hours he has bilateral chest drains and is ventilated in Intensive Care Unit. He exceeded weight limits for both the ED stretcher and the CT scanner and his obstructive sleep apnoea was probably his downfall.

Next to him, a 23 year old male has a deep stab above his left clavicle. He is stable and his chest drain bubbles comfortably. He awaits his CTA, which now supersedes the clinical signs of old.

The overdose in bay 3 is bizarre. She is 25 year old, agitated, HIV positive on antiretroviral therapy (ARV) and it is unclear as to what she took. 75% of our overdoses are ARV related. She settles with 4mg of lorazepam but remains tachy at 100 and has a Glasgow Coma Scale (GCS) of seven, easily tolerating an oral pharyngeal airway. Her blood gas is alarming with a pH of 6.8, BE-29 and lactate of 18. Incredibly, she recovers fully over the next three hours after intravenous fluids and supportive care. We admit her, still not knowing what she had taken.

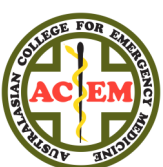
A 30 year old woman with mixed mitral valve disease, atrial Fibrillation and a cardiomyopathy, who a week earlier was warfarin toxic, now presents fitting and

unresponsive to benzodiazepines. We intubate her with thiopentone and suxamethonium and she settles. A CT brain shows multiple infarcts and she is declined by Intensive Care Unit. We admit her to a medical ward on a t-piece.

And then a 29 year old is wheeled in referred in from a nearby clinic. He had a chronic draining otitis media which had been untreated. He now has severe headache and confusion and presents with a left hemiparesis and a dilated right pupil. In ED he arrests and after three rounds of advanced cardiovascular life support we have him intubated and in sinus rhythm. His GCS is 3/15 and pupils are fixed. He dies one hour later.

So this is the shift of a developing world ED. Dramatic pathology but often dramatically poorly resourced, for staff, equipment and drugs. For a FACEM this must be emergency medicine utopia. We have a constant stream of foreign elective students from Europe, New Zealand and beyond. Medical Officers flock from the UK and Europe and are enthralled by the pathology and the life. We've had one Fellow from ACEM (FACEM) from Australia and a professor from the US, who have benefited us as much as we them.

So we welcome fellows from Australia and New Zealand; a sabbatical, a week, a month; to share your skills and in return to see what you trained for. Also registrars might want to spend a few months with us in an accredited ED with a FACEM in house. What we cannot do is pay you! What we can do is give you an incredible experience that will probably change your lives! Registration here with the medical board Health Professions Council of South Africa is trying but happens eventually. Help from African Health Placements (AHP) is mandatory (and free!) but best place to start is probably by dropping me an e-mail.





The process is:

- Trainee e-mails me to express interest in coming to work/train here.
- I write a supporting letter.
- Trainee then applies to University of KwaZulu-Natal post graduate office for a supernumerary post.
- Trainee pays University of KwaZulu-Natal student fees and post graduate office sorts the board Health Professions Council of South Africa board Health Professions Council of South Africa registration.
- Trainee then applies for student visa to come to South Africa.
- Home country pays salary or trainee comes unpaid.
- Very cheap accommodation available in shared flats at local hospital (or I have a flat to rent at \$100/week).
- Time here can be accredited as we are a registered training facility and have a FACEM, a FCEM (UK) and a FCEM (South Africa).

Good luck!



# ICELAND

## Developments in Iceland - Assisted by Australia and New Zealand

Hilmar Kjartansson

[hilmarkj@gmail.com](mailto:hilmarkj@gmail.com)

The ACEM e-Bulletin carried this article on 8th May 2015.

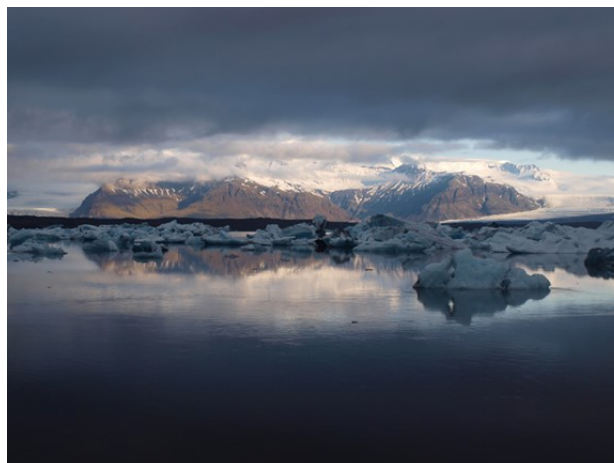
### THINKING OUTSIDE THE BOX

*Dr Hilmar Kjartansson explains how the Emergency Medicine Certificate and Diploma are helping to improve emergency medicine in Iceland.*

When Dr Hilmar Kjartansson and his wife went traveling outside their homeland of Iceland, they made a lot of friends who lived in New Zealand and they always promised to visit them. They not only kept their promise to visit, they relocated there and Hilmar completed his Fellowship training in Christchurch.

“In Iceland, almost everyone goes abroad to complete specialty training and you can’t finish any formal training there,” he said, “So I decided to do something a bit different and I applied in New Zealand, in Christchurch, to join ACEM and complete my emergency medicine training.”

However, it wasn’t quite straight-forward because at the time of his application to complete his ACEM training, Iceland wasn’t certified as having a comparable health system. Thanks to Hilmar, Fellow of ACEM (FACEM) and Emergency Medicine Certificate & Diploma Supervisor, that has all changed.



**Jokulsarlon, Iceland.**

“I had a discussion with the medical council about Iceland’s status,” he said, “From that they looked into it and now Iceland has been added to that list, so these days, Icelanders can get general registration as long as they work for three years in a comparable health system.”

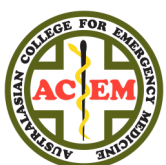
And that is not all that has changed for Icelandic trainees at the hand of Hilmar. In December last year, Hilmar completed his Emergency Medicine Certificate and Diploma (EMC/D) supervisor training and is now able to supervise physicians at Landspítali University Hospital who are completing their EMC/D training.

“Because everyone goes abroad to complete their specialty training we have very junior residents”, he said, “I wanted to give them exposure to the ACEM curriculum and the EMC/D is perfect for that.”

However, once again, this wasn’t a straight-forward process. It took some time for Hilmar and his ED to be approved as an EMC/D site.

“We are not exactly in your backyard,” he said, “All the stars started aligning in the right order so I decided to organise a supervisor training course.”

Hilmar now has one EMC candidate with another planning to join this month. He is also in discussions



and hoping to use this training course to assist with rural Icelandic General Practitioners.

“It’s outside the box of what is usually done, and we seem to be doing that a lot in our department”, he said. And outside of the box is a place where Hilmar seems to be quite comfortable.

“Everything is possible, if you persevere I find that a lot of things really can be accomplished,” he said, “At the moment, we are really turning around the ED in Iceland.”

<https://www.acem.org.au/About-ACEM/Inside-ACEM/Thinking-outside-the-box.aspx>

There are now three Icelanders with FACEM at Landspítali University Hospital (LUH). They are Hilmar Kjartansson, Bergur Stefánsson, who is the clinical director for prehospital services in Iceland, and Mikael Mikaelsson. Two Icelanders are doing the ACEM Emergency Medicine Certificate, Sigurveig Margrét Stefánsdóttir and Steinþór Runólfsson.

FACEMs Amanda Lavis and Andrew Spiller worked at LUH for half a year in 2014. This year Mark Ross and John Holmes are here, as well as Luke Summers, ACEM advanced trainee.



**Mark Ross, John Holmes, Hilmar Kjartansson and Chris Curry in Reykjavik**



# CALENDAR OF EVENTS



## Developing EM Conference

13-17 September

Cuba

For more information

<http://developingem.com/dem-2015/>



## 32nd ACEM Annual Scientific Meeting (ASM)

22-26 November 2015

Brisbane

[https://acem.org.au/Calendar/Calendar2015/  
ACEM-Annual-Scientific-Meeting-2015.aspx](https://acem.org.au/Calendar/Calendar2015/ACEM-Annual-Scientific-Meeting-2015.aspx)

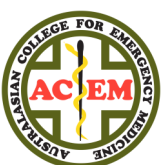


## ICEM 2016, South Africa

17-21 April

Cape Town

<http://www.icem2016.org/>







# IEMNet News

Newsletter of the International Emergency Medicine Network of ACEM