IEMNet News

Newsletter of the International Emergency Medicine Network of ACEM

Emergency medicine in Mongolia

November 2017 Issue 2

This page: nomadic man with his child walking in Bayan-Ölgii, Mongolia
Cover: panoramic view of Altai Mountains and glaciers, Mongolia

Message from the Editor

Welcome to this edition of the IEMNet News—there are some fantastic articles about emergency care from places as diverse as Mongolia, Timor Leste, Papua New Guinea, Tonga, the Solomon Islands and Iraq. I hope you enjoy the content of this newsletter and please don't hesitate to contact me with any thoughts or suggestions for future articles.

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The emergency care needs of most people around the globe are not met. Emergency care is still poorly understood...

—Dr Georgina Phillips

Congratulations to Dr Shivani Shallin from Fiji:

Dr Shallin has been awarded the inaugural Mika Ah Kuoi Award for Excellence on completion of her Master of Emergency Medicine in Fiji. She was one of the first graduates from the Master's program in Fiji.

The award is presented by ACEM to the highest performing student in the program and came about after Fiji National University made a request to ACEM for an award. The award is a first for ACEM but other Australian and Australasian speciality colleges do provide similar awards in their fields in Fiji.

Dr Anne Creaton requested the award be named after Dr Mika Ah Kuoi from Samoa, who had been enrolled in the Master's program in Fiji and would have graduated with the first cohort of students, but sadly passed away in 2013. His sudden death devastated the tight knit medical community in Fiji.

The award was named after Dr Mika Ah Kuoi to honour and celebrate the qualities of the emergency physician that he embodied: courage, leadership and a pioneering spirit; innovation, teamwork, sacrifice and persistence despite adversity.

The award includes a medal, certificate and $500 towards medical education resources to be chosen by the recipient. The award is funded by the ACEM Foundation and will be awarded on an annual basis •

A message from the Chair...

Dr Georgina Phillips, FACEM

Welcome to another fabulous edition of IEMNet News.

It's my great privilege to take on the role of Chair for this next two-year iteration of the IEM Committee (IEMC) at ACEM. The Committee and IEM Network has now been well established and deeply embedded into the work of the College by my predecessors: Chris Curry and Gerard O'Reilly. We are now in a strong position to expand our reach through strategic advocacy, improved access to resources and increased engagement with you—our talented and active members.

The new IEM Committee comprises some old and new faces—all enthusiastic, dedicated visionaries. Ongoing Committee members include:

Colin Banks, Deputy Chair (QLD), Matthew Wright, IEMNet News Editor (SA), Ngaire Caruso (WA), Gerard O'Reilly (VIC), Anne Creaton (VIC), Brady Tassicker (TAS), Alan Tankel, Ex-officio (NSW), Gina Watkins (NSW), Tony Joseph (NSW), John F. Kennedy (NSW), Bishan Rajapakse, Trainee Representative (NSW), Megan Cox (Botswana and NSW), Rose Skalicky (Myanmar and SA), Sandy Inglis (South Africa).

At our first face-to-face meeting this year in March, we welcomed some new members to the Committee:

Dan Dobbins (NZ), Zafar Smith (QLD), Katie Gallop—since retired (QLD), Kong Liew (QLD).

What is the focus of the IEMC for the next two years?

Firstly, we aim to engage and energise the IEM Network membership. Many of you are involved in terrific work to build emergency care capacity around our region and beyond—often in isolation and without the support or knowledge of the wider ACEM community. Our vision is to bring you all together into country or regional working groups where you can share knowledge and resources, collaborate on and coordinate activities, and become a focal contact point for the future. Through our upcoming IEMNet survey, we will be learning about the activities of our Fellows and trainees, making the connections and sharing our findings with you all. I hope you can all participate in our survey and feel ready to engage actively with the IEM community.

Communication is critical to our wider engagement and advocacy vision. Our aim over the next two years is to broaden our reach through social media, the ACEM website and of course, this wonderful, professional publication. We want your stories to be shared widely—so please feel free to get in contact with a news item, photo or update from the field.

We know you desire information and resources for specific tasks. Through the dedicated work of Ngaire Caruso, the committee is compiling a comprehensive IEM resource portfolio for your access and reference when you need it. Documents such as appropriate ED design, curriculum and assessment, teaching tools, reports from the field, letters of support, emergency care needs assessments, research publications and many other useful resources have been collected. Over future months, we plan to implement a system of 'quality control' and member accessibility so that our IEM resource folders can appear for your use on the website.

Of course, we continue to work with the ACEM Foundation to support the International Scholarship Program and the International Development Fund Grants. These are some of best examples of our IEM connections and work, and deserve to be widely promoted and celebrated. Forums such as the Annual Scientific Meeting, Foundation promotion activities and our newsletter are fabulous opportunities to share the great stories of EM development in the world.

Finally, our most powerful tool is advocacy. The emergency care needs of most people around the globe are not met. Emergency care is still poorly understood and work to improve the capacity of EDs and support our clinical colleagues in low resource environments is still under-appreciated and under-funded. The IEMC aims to improve our advocacy focus and strategy. We need to be at the global health funding table and at the door of our Australian and New Zealand aid programs with the stories, the evidence and the solutions to health challenges in our region.

I invite you all to join with us in this great challenge; to spread the news of EM development, share your terrific stories of capacity building, mentoring and clinical collaboration, and build the IEM Network into a strong and vibrant community of activists for improved emergency care around the world •

MONGOLIA

Emergency medicine in Mongolia

Dr Jennifer Rush, FACEM
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Mongolia is a very interesting country, and is at an equally interesting stage of emergency medicine (EM) development. In November 2016 at the Queenstown ASM, our College and our Mongolian colleagues established a formal collegial relationship by the signing of a Memorandum of Understanding (MOU).

The temperature range last Christmas day in Ulaanbaatar was between -20°C and -33°C!

This was signed by Professor Ganbold, Head of Critical Care and Anaesthesiology at the Mongolian National University of Medical Sciences (MNUMS), who attended the ASM having received a sponsoring international scholarship from the ACEM Foundation.

This MOU has built upon the involvement of FACEMs in a yearly short course, called Initial Emergency Care (IEC). The key foundation FACEMs for this course were Dr Simon Smith and Dr Loren Sher. The IEC course has been delivered at various regional centres across Mongolia, and has been well received by our Mongolian colleagues. The content of this course includes such topics as ALS, BLS, PLS, airway management, the shocked child, trauma care and US skills.

We were asked if a volunteer FACEM could visit Mongolia for a more prolonged visit to develop our collegial relationships further and to assist with specific aspects of EM development in Mongolia, hence my visit to Mongolia in June and July this year.

Background
Mongolia is a country far away, off the main tourist path. It has a land area about 20 per cent of that of Australia. It is sparsely populated with about three million people (two persons/km², compared to Australia's three persons/km²). It borders Russia to the north, and China to the south. It is a very cold country, with temperatures below zero for nine months of the year. The capital, Ulaanbaatar, is the coldest capital in the world. The temperature range last Christmas day in Ulaanbaatar was between -20°C and -33°C! Historically the Mongolian people have been nomads in culture, but over recent decades the population has become more urbanised, with Ulaanbaatar being home for just over one million people. Only 30 per cent of Mongolians still follow a nomadic lifestyle.

The history of Mongolia is rich in detail and tumultuous. Most of us know about Genghis Khan, and his family, who formed the largest empire in history. In the 15th century, the Mongols united with the Manchus for a conquest of China and the formation of the Qing dynasty. This dynasty weakened and in 1911 the Mongols created an independent country. After a number of conflicts, Mongolia (although remaining a separate country) came under Soviet influence in 1921 and this persisted until the USSR disintegrated in 1990. By peaceful means, in 1991, Mongolia formed a multi-party democracy and a free market economy.

Mongolia is a middle-income country, and has quite sophisticated technology for general living e.g. banking, telecommunications. It lacks some infrastructure (poor water supplies and sanitation except in inner-city environments), but this is changing rapidly.

The Soviets established a socialised medical system, which was a centralised, integrated and hierarchically controlled system, which was exported to Mongolia. This initially involved separation of patients into different facilities according to occupations (e.g. a hospital for agricultural workers) and medical speciality (e.g. a hospital for infectious disease). The remnants of this system are still evident, in that there are a large number of specialist hospitals (more than 20 in Ulaanbaatar) and almost no general hospitals. The hospitals include those for dermatology, cancer, cardiology, infectious disease, psychiatry and blunt trauma (penetrating trauma goes to a different facility) etc. Pre-hospital care is in the Franco-German model i.e. the doctor is dispatched to the patient (in Mongolia this is generally a newly graduated doctor), who provides some initial treatment, and then transports the patient to hospital if this is indicated. There are no paramedical personnel in Mongolia. The main causes of death in Mongolia are cardiovascular disease, cerebrovascular disease, trauma and liver disease.

Emergency Medicine
Up to 2012, emergency medicine was practised as part of a Critical Care speciality, which incorporated EM, anaesthetics and intensive care. In that year, EM split off from critical care and formed its own recognised speciality with a two year training program. It was born out of necessity (an increasing shortage of critical care specialists) and a well-considered strategy by existing critical care specialists, who recognised the benefits of EM as a speciality. The first seven graduates of the EM program graduated in 2016 and there are now 26 trainees. There has been a huge amount of work done by Professor Ganbold, and the other key critical specialists involved in the development of EM as a speciality in Mongolia are Dr Bilguun, Dr Burmaa, Dr Soyombo, and Dr Altansukh. (Mongolians traditionally have

Top: faculty for IEC course Sainshand, Mongolia. Bottom left: staff and Kevin Maruno and Brad Ellington at Urgon Hospital. Bottom right: Professor Ganbold giving a presentation

Wages post-specialisation are relatively low, and many doctors have non-medical businesses to supplement their income.

only one name—other names were abolished by the soviets to disconnect people from clan and class loyalty.) The dedication, professionalism and energy of these people is impressive. There is huge enthusiasm for EM in Mongolia. The first EM specialists have spread across public and private hospitals and there is a desire to develop systems akin to those established in Australia. Equipment in EDs in Ulaanbaatar is generally good in range, although older in age.

There is currently an emphasis on curriculum development at both an undergraduate and post-graduate level. Mongolia trains its own doctors, with about 1000 medical graduates a year. MNUMS is currently building a University Hospital, and the anticipation is that it will function as a true ‘general’ hospital, catering for all specialties, unlike the present specialised facilities. It is due for completion in June 2018.

As everywhere, there are hurdles to be overcome. The trainees in Mongolia (called ‘residents’) in all specialties, are generally unpaid during their training, and also have to pay fees for their training. So extension of training time, and thus the depth and breadth of knowledge, has practical limitations. Wages post-specialisation are relatively low, and many doctors have non-medical businesses to supplement their income. The spoken language, both generally, and in medical life, is Mongolian, and knowledge and use of English is limited. This restricts the resources that can be used for learning.

Rural medicine in Mongolia is challenging. Distances are vast. There is no aeromedical retrieval system. Road infrastructure is poor and accessibility is often limited by harsh sub-zero temperatures. Facilities are very basic and there is difficulty in attracting doctors to work in these areas.

The Mongolian people have generous, robust, determined and resilient personalities, and a culture that reflects this. They have tackled the development of EM with these characteristics, and probably because of this, appear to have bypassed the initial hurdles that have historically been barriers in other countries. They have not had to battle, to any significant degree, for the creation and recognition by the government health administration of EM as speciality.

The Mongolian EM faculty are visionary and inspirational in attitude with understanding of the current barriers and insight into the possibilities for the future. EM can only proceed in a forward direction in Mongolia. It is indeed a wonderful time and place for EM.

The IEC course is conducted yearly (around May to June). If anyone is interested in participating in this course, or would like further information about EM in Mongolia, please contact either Dr Simon Smith at *smsmith@bendigohealth.org.au* or myself on *0403 815 292* or at *rushseven@hotmail.com* or *jennifer.rush@sa.gov.au*—we would love to hear from you •

We are far more united and have far more in common with each other than things that divide us.

—UK MP Jo Cox

IRAQ

Human = human

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When people say, as they often do, 'I can't imagine it, it must be so different' one of the things it feels natural to do is to talk about similitude.

Building destroyed during fighting in Mosul
PHOTO Natalie Thurtle/MSF

Of course there are differences. I don't walk around the ED in Sydney with an HF radio, there's no shelling, we don't see blast injuries, usually, in the Eastern suburbs. All those things were in Mosul.

But pain, fear, comfort and kindness are universal (even if those things are about a stubbed toe). If that's too touchy-feely for you, then how about physiology, anatomy, pathology… and the simple stuff you can do to save a life, or ease a death. Those things? Those things are the same.

Patients
Still when I lock eyes with a boy hit by a mortar after living under siege for three years, a patient whose language I don't speak and whose culture is different to mine, I freeze for a second.

Do I really know what to do?

I hold his gaze as the team get the monitoring on and familiarity returns, gives a frame to work with. Because I've seen that look before, and so have you, many times. It's the same look that the 80-year-old gasping with pulmonary oedema and sats of 70 per cent gives you. The woman with massive PPH that tells you she feels faint lying flat or the MVA patient that realises he can't feel below the umbilicus.

That look.

In some places the macro looks very different. It certainly did in Mosul, but the macro, the patient in front of you, the actions required, are the same. I grab onto it, not just in Mosul, but when you feel in resus that sense of not being quite in control, not knowing for a second if you know what to do.

You say to yourself, 'this is a human being, you've seen humans before, it's okay'.

Colleagues
Another question I often get is 'do you find it hard dealing with the type of patients you see back home?' and the honest answer is no. I don't find it difficult at all to see broken fingers or diarrhoea and vomiting or a funny rash or a kid with a pea up her nose.

See above.

Human = human.

What I do find hard occasionally (and I did think twice about admitting this here) is communicating with some colleagues. Colleagues in Médecins Sans Frontières (MSF, Doctors Without Borders) are not perfect and neither am I. We have communication breakdowns on a regular basis just like in every other system, but somehow we're generally on the same track and that's a given. When I work at home I find that some people think about

They had been pushed so much, it was morally wrong to push them any further. They seem to need a clinical role model, listening and compassion.

medicine in a fundamentally different way: for example, people who like to do very technical sexy things with a limited evidence base but won't wipe their patient's face. The frequent refusal of complex patients who need someone to take ownership of them and advocate for them because 'that's not my speciality'. The faux diagnostic certainty from those educated enough to know better.

These things are the things I find hard when I come home, not the patients. It seems that if doctors in Mosul can maintain compassion and a patient-oriented focus, then surely we can manage in Australia? Of course many do. But there are many competing priorities and expectations here also. It's not a simple question.

Management

The managerial challenges can also be more similar than you might think. If you want to stop reading because I used the M word feel free, but these make up a large proportion of the work in both contexts. Quite a portion of time in Mosul was spent drafting rosters and addressing animated concerns about said rosters, listening to complaints about transportation provision, addressing arguments between the watchmen and the triage team.

I am not a natural manager. Doctors rarely are, apparently, as my non-doctor managerial colleagues are fond of reminding me. Our tendency is to take control and/or compete and our expectations are often high. We tend to excel at being focused. The macro is for someone else. I have had to work hard to get better (and still have far to go). Some management lessons have been learnt the hard way—like when my staff went on strike, this was many years ago but I have not forgotten the personal management failures that partially led us there! Sometimes I've learned in a gentler way by modelling some excellent managers (thanks to you all), or having a colleague point something out to me.

Managing the team in Mosul seemed straightforward at first. They were generally motivated, hard-working people with a relatively high skill base, particularly in trauma. Most of them could throw in a chest drain from across the room in the dark. There was the usual testing and push-pull of the first few days but then it settled and we were moving well. I was impressed, they were hungry for knowledge and training, having been starved of it living and working under siege for the last three years. We had a lot of fun debating clinical points. We played around with the ultrasound, had some good saves and some difficult days and we got to know each other a little.

And then the stories started to come.

I have worked with traumatised teams in a conflict place before. But Mosul was different. There was something about being there during the time that the city was retaken from ISIS, the time when the three year siege was over, that maybe encouraged walls to fall, wounds to dehisce, stories to be told. It felt like a management delicacy was required that was special. They had been pushed so much, it was morally wrong to push them any further. They seem to need a clinical role model, listening and compassion. And some laughs.

I am still reflecting on how this management experience fits into what I do back home, but it reminded me to manage thoughtfully, regardless of whether staff are traumatised or not. Humans = humans. People say it doesn't cost anything to be nice but it can cost, or we would do it more. It can take the most enormous amount of effort if you are under pressure as a manager, when you're feeling tired and/or 'hangry'.

We need to motivate people we are managing to help them achieve their potential, to help them deliver the care we know that they can. But considering when and how we push is important, because we can push them over.

Working with MSF teaches a myriad of skills that transfer back to the ED in Australia, some clinical, some non-clinical. But maybe most of all it's a great leveller. Bravery and vulnerability and roster nitpicking and that look, they're universal •

Natalie is an emergency physician and is currently a post-graduate fellow in toxicology at Prince of Wales Hospital in Sydney. She has worked with Médecins Sans Frontières since 2008, most recently as an ER Doctor in Mosul, Iraq. She also works for UK NGO www.doctorsfornepal.org which is engaged in trying to improve healthcare access for people in remote, rural Nepal.

Papua New Guinea Medical Symposium and Emergency Medicine Specialty Meeting

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The 53rd Papua New Guinea (PNG) Symposium was held in September this year at the swanky Stanley Hotel in Port Moresby. The theme to this year's symposium was 'Access to Safe Surgery and Safe Anaesthesia' following on from the Lancet report 'Global Surgery 2030' published in 2015. With the majority of the PNG population living rurally, access to medical facilities presents a great challenge with patients often having to walk or be carried for days, to then arrive at an under-resourced, under-staffed facility. Significant progress is being made in surgical capability but this is most evident in the larger centres. To meet the needs in remote districts, specialists in rural medicine are being trained in increasing numbers. The symposium was opened in a grand ceremony by the Prime Minister, Peter O'Neil and the Health Minister, Sir Puka Tema.

While the symposium was dominated by talks from surgical, anaesthetic and obstetric faculties, emergency medicine was well represented by Dr Bobby Wellsh speaking on ultrasound guided fracture reduction and Dr Arabella Koliwan speaking on two multinational trials occurring in Port Moresby General Hospital Emergency Department, the HALT-IT and CRASH3 trials (involving tranexamic acid in gastro-intestinal haemorrhage and traumatic brain injury respectively). St John's Ambulance paramedic Matthew Canon also spoke on the development of pre-hospital care including the training of the first cohort of paramedics from PNG.

The cost to attend the symposium was only 400Kina (A$180) and this included food, drinks and entertainment for four consecutive evenings. The last night was at the Sir John Guise Stadium where many cultural groups danced up a storm while the patrons sampled many of the local delicacies.

Following on from the main symposium, most specialities had their own meetings. Emergency medicine had hired out the VIP room at the Taurama Aquatic Centre which was built for the 2015 South Pacific Games. There were many interesting talks including the thesis presentations for the seven emergency medicine trainees who are approaching the final exam. The annual general meeting was full of excitement and energy as the South Pacific Society for Emergency Medicine changed its name to the Papua New Guinea Society for Emergency Medicine. A completely new executive was voted in to lead the society into the future. The new president is Dr Garry Nou, the vice-president is Dr Mangu Kendino, the secretary is Dr Arabella Koliwan and the treasurer is Dr Posing Posanau. To help guide this dynamic team, Drs Vincent Atau and John Tsiperau were voted in as ex-officio members. This team is well balanced and motivated to help further emergency medicine and emergency care more broadly, throughout the country. Thanks of course must be given to the group that has kept the fire burning with the society until this point; Dr Sam Yockopua (President), De Desmond Aisi (Vice-President and Treasurer) and Dr Bobby Wellsh (Secretary).

The new trainees were selected, both for the Masters of Medicine (Emergency Medicine) training program and the new one-year Postgraduate Diploma of Emergency Medicine (DEM). The DEM starts next year and will serve two purposes. It will firstly provide an opportunity for doctors to develop skills and knowledge in emergency medicine and will ultimately serve as an entry requirement for those seeking to complete full specialist training in the Masters program.

Emergency medicine is already the largest training specialty program in PNG with 27 trainees and there are more applicants this year than for any other specialty. This amazing achievement is testament to the hard work, enthusiasm and commitment of the current group of emergency physicians and trainees. More important than the number, the quality of these new trainees is very high. As it stands emergency medicine training is the place to be in PNG. The future indeed is very bright •

PAPUA NEW GUINEA

SOLOMON ISLANDS

Always learning

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I made mistakes last time. Perhaps that's inevitable, but I wish it wasn't the case. After 15 years of medical training, I thought it would be easy to translate my skills to a new environment. It's not as if human physiology changes when you cross a border.

As it turns out, scientific principles may not differ, but plenty of other things do. When I undertook my previous volunteer assignment—as Visiting Clinical Lecturer in Emergency Medicine at Divine Word University in Madang, Papua New Guinea (PNG)—I spent a portion of my time supervising students and junior staff in the Emergency Department (ED) of Modilon General Hospital. I learned that what works in Australia doesn't necessarily work in PNG.

I vividly remember one patient, Ben*. He presented with a descending paralysis nearly 24 hours after being bitten by a snake. His airway was compromised and his respiratory effort poor.

There was no functional intensive care unit in Madang, and only in rare and specific circumstances would patients be intubated—a process that involves inserting a breathing tube into the trachea to facilitate oxygen delivery to the lungs. Patients would then be supported in the operating theatre's recovery suite or 'private ward', a wing usually reserved for VIP patients. The local emergency physician and I quickly decided that Ben needed this level of attention.

The intubation went smoothly. He received anti-venom because it was in stock that week. Basic monitoring was implemented. Care was handed over to the inpatient team. We updated his family members.

Ben died a few hours later. We only found out when we enquired about his progress.

It wasn't the news we expected to hear. Ben's emergency care had been timely and effective, despite the Department's extremely limited resources. His presentation even provided an opportunity for teaching; we'd demonstrated the intubation process, and discussed snakebite treatment.

I was never able to find out exactly why he died. There are many potential explanations, but fundamentally, the environment wasn't equipped to support someone in such a vulnerable state.

I've thought about Ben a lot since then. What could and should we have done differently?

I've learned that, in these challenging and resource-constrained environments, less is often more. Rather than a plastic breathing tube, Ben may have been better served by the lateral recovery position and an oxygen mask. That approach would have had significant risks, but it might have limited his exposure to iatrogenic injury. One of medicine's guiding maxims is 'first, do no harm'.

I've also realised the importance of systems of care. Hospitals are complicated pieces of machinery, and all the parts are interconnected. There is little value in developing components in isolation.

Although clinical care was not the focus of my work in PNG, Ben's case is illustrative of the challenges of practising and developing capacity in an under-resourced environment. Those of us who visit from outside need to think deeply about what strategies will be safe and effective.

When I got back to Australia, I experienced a sense of guilt that I'd benefited more from my assignment than I was able to contribute. I only hope that, during my brief time in Madang, I was able to have some small impact on the health students I was teaching. They will play a critical role in improving healthcare delivery in the most remote corners of PNG.

Left page: Australian Volunteer Clinical Nurse Specialist Lynne Wanefalea, Senior Nurse Doreen Siope, Director of Emergency Medicine Dr Trina Sale and Australian Volunteer Dr Rob Mitchell (L-R) at the National Referral Hospital, Solomon Islands
PHOTO Nick Sas

* Ben is a pseudonym used to protect the privacy of the patient and his family.

Australian Volunteer Dr Rob Mitchell and Emergency Nurse Rita Suvi at the National Referral Hospital, Solomon Islands
PHOTO Nick Sas

Bridging interns Dr Culwick Sigoto, Dr John Geseni and Dr Adam Wyndam with Australian Volunteer Senior Registrar (Paediatrics) Dr Rami Subhi (L-R) at the National Referral Hospital, Solomon Islands
PHOTO Rob Mitchell

Intern Dr Phillip Notere and Australian Volunteer Dr Rob Mitchell at the National Referral Hospital, Solomon Islands PHOTO Nick Sas

Solomon Islanders are not only extremely resilient, they are incredibly forgiving.

Fast forward three years, and I'm sitting in a balcony hammock overlooking Iron Bottom Sound. My (now) wife and I have returned to the Pacific for another volunteer assignment with the Australian Volunteers for International Development program. This time we're in Honiara, contributing to the Solomon Islands Graduate Intern Support and Supervision Project (SIGISSP). Our first task? Learning how to pronounce the acronym.

Similar to PNG, the central focus of our work is teaching and training. This time we're helping to develop and implement a transition-to-practice program for Solomon Islanders who have completed their undergraduate medical studies in Cuba. The current group of trainees have returned to Honiara after six months of Spanish language training and six years of medical education.

It's an exciting time to be at the National Referral Hospital. There are more interns than ever before, and there is a palpable sense of possibility. Our challenge is to help convert the Cuban investment in undergraduate education into an effective medical workforce for Solomon Islands. There are very few doctors outside Honiara, but that stands to change.

The first cohort of Cuban returnees are about to complete their internships. The two junior doctors currently working in the ED have been posted to isolated island communities that have not had a doctor for many years, if ever. Tony is destined for Tulagi, the country's former capital that was decimated during World War II, and Edwin is heading to Renbel (a portmanteau of Polynesian Islands Rennell and Bellona). Heading to a province as a sole doctor must be incredibly daunting, but I am confident that both of them will have a positive and enduring impact on these communities.

In my work here, I consciously try to apply the lessons I learned in Madang but there are still plenty of challenges. My responsibilities are much more varied than they are at home, and again I find myself learning new skills. In the ED, I supervise interns, but I also contribute to a whole raft of quality improvement activities, including departmental teaching, guideline writing and policy development.

Last week, the ED implemented the Solomon Islands Triage Scale. Based on a South African model, it's been adapted for the setting by an Australian volunteer nurse advisor who's also based in the ED. It's a major milestone on the road to improved emergency care.

On the SIGISSP front, our team of Australian volunteer doctors, along with the volunteer Intern Training Program Supervisor and local colleagues, are assisting with the development of the hospital's training programs. We've been formalising guidelines, developing a syllabus and writing examinations. These are not tasks in which we are particularly experienced, but we're drawing on our experience and networks to do the best job we can.

We hope we're doing the right thing, and worry that our colleagues are too polite to tell us if we're not. Solomon Islanders are not only extremely resilient, they are incredibly forgiving.

I've been told on many occasions that international assignments come with their ups and downs. I anticipated that prior to my first volunteer deployment, but I didn't appreciate that the amplitude would be so extreme.

Working in a clinical environment, the lows seem all too regular. Death and despair are common in the ED, and sometimes the demands are overwhelming. But there are plenty of reasons to keep coming back. For one, the director of my department is an exceptional leader. Having only finished her speciality training 18 months ago, she is one of the most positive and influential role models I have ever worked with. She is leading a range of reforms that will have a marked impact on the quality of emergency care, as well as teaching and supervision, within the ED.

There have been many mistakes and there will be many more. I do a lot more reflecting here than I do at home, and it's probably still not enough. My job title here is the same as it is in Australia, but the content and the context are very different. That comes with challenges, but it also rewards in abundance.

I learnt a lot from Ben's death, and I think my local colleagues did too. I hope there will come a time in PNG and Solomon Islands when that sort of system failure is a distant memory. It's a long way off, but I strongly encourage you to become part of the effort •

Rob is currently working in Cairns as a post exam fellow and will complete his requirements to become a FACEM in February 2018. He has been an Australian Volunteer in both PNG and the Solomon Islands—Australian Volunteers International is an increasingly frequent partner organisation for ACEM.

TIMOR-LESTE

Building an ambulance service

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Access to health treatment begins with a journey. That journey may be by foot, motorcycle, car, horse, bicycle, taxi, helicopter or ambulance. In most of the world the ability to make that journey is not something the patient can take for granted. Access to transport for much of the world's population is a fundamental barrier to seeking regular and appropriate health care.

Ambulances that broke down were often left for weeks or months until parts could be sourced and delivered.

Timor-Leste is a country of 1.5 million spread across 13 districts covering terrain that is often difficult and at times impassable. The country is emerging from years of difficulty with significant health issues including malnutrition, tuberculosis and some of the highest rates of maternal and child death in the world.

- 47 per cent of the population under the age of five suffers malnutrition[1]
- A maternal mortality ratio of 215 per 100,000 live births[2]

I have been working with the Timor-Leste Government since 2011 to try and overcome issues associated with access to health care. The Timor-Leste National Ambulance Service (TLNAS) is a government run service that provides Emergency Medical Services to the population. The service was initially established through an NGO and developed with the support of a network of Australian volunteers.

Today the service responds to over 20,000 cases every year. As a snapshot:

- TLNAS has 140 health related vehicles of which 60 are permanently designated as ambulances
- 100 ambulance staff including a cohort of eight doctors and two midwives
- An average of 30 patients evacuated by air from rural locations by Mission Aviation Fellowship (MAF)
- 59 per cent of all patients are women, 41 per cent are male[3]
- 57 per cent of all emergency calls are triaged and dispatched as code 1 or critical[4]
- 32 per cent of all cases are childbirth or pregnancy related, 29 per cent traffic accidents, nine per cent assaults, 1.8 per cent post-partum haemorrhage, four per cent respiratory-related, three per cent cardiac and hypertension. The remaining 21 per cent of cases are all medical-related[5]

In 2011 when I arrived the service was very much limited by both logistical and clinical capacity. Logistical issues included the ability to maintain vehicles in remote locations up to eight hours' drive from Dili. Ambulances that broke down were often left for weeks or months until parts could be sourced and delivered. Overall ambulance availability would regularly fall to 50 per cent nationwide. The geography and distances also limited the service's ability to maintain basic supplies of consumables and medication.

Clinically, the staff lacked access to a regular supply of medical consumables and also had limited training in the management of acute patients. Referrals between hospitals were driven by a lack of access to specialist care in district locations as well as irregular availability of diagnostic services and consumables.

A national free call number 110 was available for patients to seek assistance, but response was limited by the lack of a functioning communications system (phone and radio). 85 per cent of calls received, were not answered.

Staffing consisted of a nurse and a driver with one operational ambulance per response location (13 in total). There was no medical direction, clinical practice guidelines, evidence collection or management of clinical data.

Urgent patients could be evacuated via a plane supported by Mission Aviation during daylight hours from five locations. There was no advanced clinical or doctor support for the retrieval of the acute patient.

For most patients the journey to treatment was not an easy one.

An eight-hour road trip from Suai to Dili for x-ray and orthopaedic referral, a four-hour drive from Baucau to Dili for a consult of a pre-eclampsia patient. The journey times only tell half the story with road conditions forcing ambulances to travel at a speed of 20–30km per hour.

Left page: responding to a patient in Hera, 30 minutes from Dili, and driving in the Wet Season near Aileu.

[1] https://www.oxfam.org.au/what-we-do/health/food-and-nutrition/childhood-malnutrition-in-timor-leste/

[2] http://apps.who.int/gho/data/node.country.country-TLS

[3] TLNAS Dispatch Data 17/7/2017

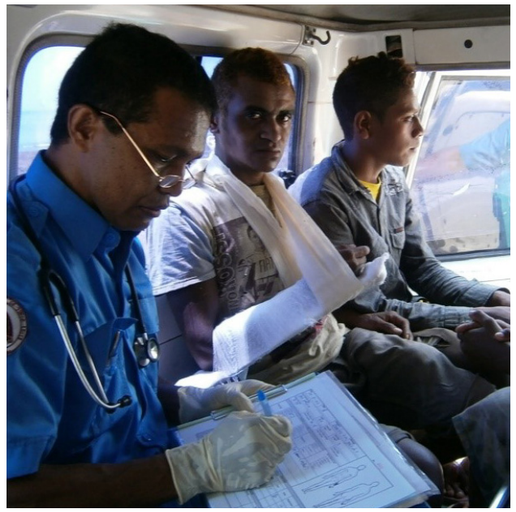
[4] TLNAS Dispatch Data 17/7/2017

[5] TLNAS Dispatch Data 17/7/2017

Dr Nuno V. Soares, TLNAS
Operations Manager

Project logisticians repairing
an ambulance

MAF Aeromedical
evacuation



A paramedic assessing a patient in
Tibar, 20 minutes from Dili

A TLNAS midwife teaching new born
care and resuscitation

Today, over 90 per cent of 110 calls are answered, and a national ambulance operations room staffed with a team of eight young Timorese ambulance assistants.

Response times in Dili are just under 20 minutes with two doctors on call daily to support the delivery of pre-hospital care.

Two airplanes can be mobilised to seven locations with available staff including a doctor, nurse and midwife attending based on the case type and acuity of the patient.

Over 1000 maintenance events are conducted on the ambulance fleet annually in the districts. Maintenance goes to the ambulance not the other way around.

There is a national ambulance manager overseeing a clinical team of 100 staff including eight doctors. An annual clinical training program has been developed with a weekly case review by a doctor. There is a clinical evidence base of 15,000 pre-hospital care records which is being used to develop national clinical practice guidelines and inform emergency practice.

Issues do remain including the reliability and scope of rural services as well as the lack of integration for referrals between treating clinicians.

The service is still 90 per cent government funded, still using the same vehicles it had in 2011, and responding with an annual patient growth rate of 10 per cent year on year and a case load of over 20,000 patients. The emergency department at the national hospital is integrated into ambulance dispatch through a web portal and VHF radio link.

Most importantly the service is Timorese led and owned. How does EMS in a low resource country get started and how is it sustained?

Emergency medical services are by nature a transport service. The transport comes first the treatment comes second. Through a DFAT initiated project, a process was undertaken to look at the barriers to health transport and critically analyse where the most benefit could be achieved with targeted investment and support. This had to be a sustainable investment that could yield a tangible return rapidly. The benchmark for a return was ambulance availability, patients transported and overall capacity to respond.

This was an exercise in logistics not clinical care. From a development perspective broad based change instantaneously to a fragile health institution could have washed over and greatly disrupted the ability of the national managers to implement change.

It was tempting; clinical training, competencies, equipment, maintenance, communication, medication, clinical governance—all were needed, but what would matter to the lady in labour three hours from hospital experiencing complications.

The focus was shifted. A project was initiated that took on the management of logistical issues associated with running an emergency service, whilst enabling the TLNAS leadership to focus on the delivery of clinical care and operational management.

The logistical response included establishing a national mobile mechanic program staffed and led by Timorese logisticians. The team fixes vehicles at rural hospitals along with stretchers, oxygen systems and other components. Of 1,000 annual maintenance events, 30 per cent were in a rural location.

Previously an ambulance would be offline for up to three days whilst the vehicle was driven to Dili and repaired. Now ambulances could be offline for the time it took to complete maintenance—in the simplest of servicing, less than two hours.

Other responses included creating a system to record clinical cases, computer aided dispatch, VHF radio, oxygen management and refill, and upgrades to the emergency operations room.

The net effect from this process was the phone was answered, the vehicles were moving and the hospital was linked to TLNAS via radio and computer.

Again, the logistical effort was in Timorese hands facilitated through a DFAT project. The development of this capacity has now also led to the creation of an equipment pod, to provide emergency medical management at major incidents, which can be transported and setup by Timorese logisticians embedded within the TLNAS.

The creation of logistical capacity and repairing of the underlying service enablers (communications and vehicles) provided the space for the Timorese Ambulance leadership to build the level of clinical response that they wanted to be successful. This included minimal treatment standards, a set of simple medication for delivery pre-hospital and patient care recording.

In addition to the existing nurses, eight Timorese doctors were brought in to enhance care and provide a more complete response for the acute patient. These doctors by nature of being directly integrated into the delivery of emergency pre-hospital care, have helped move the service from transport only to the beginnings of transport with care. A regular doctor led case review is creating the beginnings of evidence-based care that is becoming more patient centric.

I also know that many of my counterparts live with trauma and grief that forms a part of who they are as people and clinicians.

Dr Jon Moores training in Ermera

TIMOR-LESTE

As a foreign advisor, the solutions often look simple—invest, teach, show and ultimately leave. I've been with the TLNAS for seven years and probably the most important lessons I have learnt is the need to take an entirely different approach;

1. **Be there**. Get dirty, uncomfortable and frustrated, but doing it with my counterparts by experiencing their challenges and hopefully aligning my thinking with theirs.
2. **Listen**. Often and not always to the person making the most noise. Sometimes ideas come from the most unexpected of places.
3. **Absorb and test**. Develop and reflect your ideas with the people you are working with. Sit patiently, imagine solutions but do it in their language not yours—figuratively and literally.
4. **Be emotional**. Showing you care and testing the way things are done is good. We can be culturally sensitive without being culturally frightened. Expressing an emotion in the local language and context is ok, but you can't do it if you haven't showed up (See 1: Be There).
5. **Try new things**. A pat on the back is 10 inches away from a kick in the rear. As a clinician and an advisor, the last thing I expected to be doing was setting up a national mechanic network and figuring out how to overhaul car engines in remote locations, but it was what my counterpart needed to do his job.
6. **Confidence**. The key to sustainable change is confidence. How do you enable an individual or a group to personally commit their energy to change and own the results; good or bad? From the outset I sat with the doctor leading the service and simply promised that I would not leave nor allow him to stumble.

The highs of my experience in Timor-Leste have been built on the lows. In many ways I needed those lows to help build the relationships and trust that would create space for the people who needed it.

I know that whatever I have experienced, it is a small slice of the trauma and difficulty that this remarkable young nation has endured. I also know that many of my counterparts live with trauma and grief that forms a part of who they are as people and clinicians. Building self-belief and confidence has been my key to help build emergency health services in Timor-Leste •

Jon is originally a paramedic from Western Australia who has lived in Timor-Leste since 2011 with his family. He is currently employed in Timor-Leste through DFAT in a program called the Partnership for Human Development. Jon is that rare commodity—a human dynamo.

TONGA

Pafi's perspective

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While Emergency Medicine (EM) has been gradually developing in Tonga for several years, currently there are no EM specialists working there, and Tonga has no pathway for EM speciality training.

TONGA

We may be divided by speciality or department but we are all different parts of the same body that needs each other in order to function smoothly.

Recently, the ACEM EM Certificate (EMC) and Diploma (EMD) courses—with some small modifications—have been used as the basis for training several EM doctors. It is hoped that these courses can soon be integrated into a widely recognised, sustainable, high-quality, Tonga-based specialist training program.

Dr Pafilio Tangitau (Pafi) is one of three ACEM EMC candidates who most recently undertook—and passed—the EMC training. Each trainee spent four weeks in Auckland as part of their EMC training. Following his attachment in April 2017, Pafi was asked to reflect on and document what he had learned, especially what he can take for use in Tonga. The following are excerpts from these reflections.

Emergency Medicine was my final rotation as an intern at Port Moresby General Hospital, Papua New Guinea. During those three months, mentoring from seniors and the working environment made me interested in Emergency Medicine. But as I went back home to Tonga in 2015, it was a different story as I found out from some of the health workers that Emergency Medicine is not a well-recognised department. They suggested to consider other specialities like Internal Medicine, Surgery or Obstetrics for a future career.

While most Tongan doctors did their undergraduate training in Fiji School of Medicine, Pafi trained in PNG. Whilst there, he benefited from the previous development of EM in PNG (details of this development is well documented in various places, one of the earliest is from 2003[1]).

From Pafi's account of his Auckland experience, he drew attention to the importance of teamwork, a flattened hierarchy, inter-professional respect, communication, and team support.

I admired how nurses and doctors, junior and senior doctors interact constructively to improve patient's care and nurture upcoming health professionals. Nurses have the same right as doctors to voice their concern.

Previous page: the three EMC candidates (all successful in August 2017). From left to right: Penisimani Poloniati, Kaloafu Nofo'akifolau, Pafilio Tangitau, (aka Peni, Kalo, and Pafi).

1 Aitken P, Annerud C, Galvin M, Symmons D, Curry C. Emergency medicine in Papua New Guinea: Beginning of a speciality in a true area of need. Emergency Medicine. 2003;15(2):183-7.

2 Curry C, A perspective on developing emergency medicine as a speciality. International Journal of Emergency Medicine. 2008;1(3):163-7.

The culture of speaking up and express your thoughts freely without the fear of any consequences.

The culture of working together as a team with one goal: the welfare of the patient.

We may be divided by speciality or department but we are all different parts of the same body that needs each other in order to function smoothly. The care for most of the patients start at ED and I admired how other specialities work together with the ED team to provide the best care for the patient.

I admired the intra- and inter-departmental communication witnessed in the Auckland emergency departments.

Communication is also important when informing patients of their illness, treatment plans, investigation results and follow up. How the doctors communicate can positively influence the patient's beliefs and can lead to better adherence to recommendations.

Although Pafi recognised the chasm between EM in NZ and Tonga, he has hope for the speciality in Tonga.

My four-week experience in ACH gives me courage and motivation to pursue my journey in emergency medicine. Observing how the ED operated encourages me to know that we can do in our EDs and we can improve from where we are today.

One of my mentors told me that ACH ED was like Vaiola ED some 30 to 35 years ago, if they can do it then we can do it as well. Changes will not happen overnight; we need patience, persistence, resilience, diplomacy, and to look after ourselves.

Pafi is referring to discussions we had about the development of EM in other countries, including Australia and New Zealand. While there are numerous challenges for EM development in Tonga, a long-term approach will ensure success. Building on previous development in the Pacific, and beyond, is already happening, and should be gratifying to those giants upon who's shoulder we stand[2]. Hope, and an expectation of success, is vital.

I know we cannot match up to (Auckland EDs) in terms of resources including human resources. But I believe we can adopt the culture of working together as a team, we can adopt the culture of speaking up and we can work on our communication skills and try establishing pathways and guidelines where we can make sure that our patients received the best care provided by our service •

Mike Nicholls is a FACEM who works at Auckland City Hospital part time and is a full time father with a long standing interest in International EM which includes doing some work with Chris Curry in Nepal in 2013.

Pafi Tangitau is a registrar in the ED at Variola Hospital in Tonga who has just completed the ACEM EM Certificate.

ACEM lends support to EM development in Tonga

Dr Georgina Phillips

ACEM has officially offered support for the recognition and development of EM as a new specialty in Tonga. Our president, Tony Lawler, on behalf of ACEM sent a letter to the Tongan Minister of Health, the Honorable Dr Saia Ma'u Piukala encouraging the development of emergency care in Tonga and the recognition of EM as a specialty and applauding the efforts so far.

This was done at the request of the NZ FACEM team who are working in partnership with the Medical Director of the national hospital, Dr Lisiate 'Ulufonua, and of course the first cohort of local doctors doing the EMC/EMD to develop EM in Tonga.

A similar letter of support from the IFEM president, Lee Wallis, was also sent to the Tongan Minister of Health.

Without government recognition, there will be no support for training, specialist positions at the end of training, or ability to progress a career in EM in Tonga. It's important initially for the medical community, but once EM is recognised as a specialty, then the ED can become a site of training and education, therefore leading to increased support for nurse training and the building of a whole emergency care system, including disaster management and pre-hospital care.

St Vincent's Pacific Health Fund

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The Pacific Health Fund *www.stvpacifichealth.org* supports small scale healthcare initiatives in the Pacific region. It was founded in 2008 through the inspiration and generous legacy of Associate Professor Andrew Dent whilst he was Director of Emergency Services. The goals of the Fund are to promote and enable educational opportunities for health workers within the Pacific region as well as assistance in building capacity of health services and personnel through the provision of financial grants.

The Fund is managed by a volunteer committee, administered by the St Vincent's Hospital Foundation and is fully financed by donations. There are two streams of support available.

The Andrew Dent Student Scholarship is open to health sector students to help support volunteer work, student electives and study trips within the Pacific Islands region. It is hoped that an experience of working and living in the Pacific as a student will lead to a life-long professional and personal link with the region which will benefit both the individual student and the Pacific Islanders they encounter. Each year, at least one and often several student scholarships are granted.

Grants for other specific purposes are also available. These include enabling healthcare worker education opportunities and other capacity building projects. Institutions and individuals within both government and mission hospitals are eligible for consideration. Applicants from within the Pacific including Australians will be considered.

Emergency Care across the Pacific has been a significant benefactor of the fund. Numerous current and potential future leaders have received grants to assist them further develop their professional skills and networks through grants supporting Australian based short courses unsuitable for local deployment. Other projects supported have included educational short courses delivered in country to improve knowledge and patient care as well as funding for some equipment such as portable ultrasound. As well as medical projects, both allied health and nursing projects have also been supported in several countries.

Since inception, well over $300,000 has been distributed through 31 scholarships and 26 grants have been approved. The fund continues to operate with long term sustainability.

We encourage enquiries from the IEMSIG network for potential grant submissions. Supporting the fund through a tax deductible donation is also appreciated!

Further information is available on our website, Facebook page or through email *stvpacifichealth@svha.org.au* •

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