

# **REPORT**

## **Emergency Life Support international (ELSi) Course** **Serious Illness in Remote ENvironments (SIREN) Course** **Nuku'alofa, Tonga, August 2017**

### **INTRODUCTION**

The Kingdom of Tonga is a nation comprising >170 islands with a population of approximately 105,000. The main island of Tongatapu has a population of >70,000. Vaiola Hospital is the major hospital in the capital city, Nuku'alofa, with an Emergency Department (ED) that sees around 300 patients/day.

ELSi is Emergency Life Support international. It is a 2-day course designed for any medical staff who may be involved in treating emergencies and is a combination of interactive lectures and "hands-on" skill stations. Subjects covered include management of asthma, pneumonia, shock, diabetic emergencies and seizures with skill stations including intubation (basic and difficult), difficult IV access, cardiology, ECG interpretation and management of the sick child.

SIREN is Serious Illness in Remote ENvironments. This is also a 2-day course primarily designed for nursing staff and health officers. Subjects covered include pain management, pneumonia, shock, sepsis, burns and seizures with skill stations including airway and breathing "next steps", fluid management, shock, anaphylaxis and asthma.

We have previously provided ELSi and SIREN courses in PNG, Solomon Islands, Vanuatu and Fiji as well as further afield in Myanmar and Timor Leste. Our feedback has always been overwhelmingly positive for these courses. Both courses are designed for resource-poor environments.

This was the second visit to Tonga following the successful delivery of ELSi and SIREN courses in May 2016. The ELSi course ran on August 8<sup>th</sup>/9<sup>th</sup> with the SIREN course running on August 10<sup>th</sup>/11<sup>th</sup> 2017.

### **VENUE**

The venue was essentially the same as last year. We had access to a large multi-purpose room, 2 rooms up in the administration area and a room in the nursing school during the SIREN course. These were all on the grounds of Vaiola Hospital and were within easy walking distance of each other. They proved completely satisfactory for our requirements and we are immensely grateful to the local organisers in Tonga for ensuring their availability to us.

### **CATERING**

Catering was provided by the same local supplier (Esiteli Pasikala). Food was delivered on time and was of the same high standard as set last year.

### **PRINTING**

Printing of the manuals was performed by the same local business as last year (Suliana Afu). The manuals were again of good quality and were distributed to most participants as a hard copy during

the week prior to the courses and electronically to those participants who worked away from Nuku'alofa.

### **ACCOMMODATION**

We stayed at the same accommodation as last year (Mamta Villa) which once again suited our needs well. As we were not within walking distance of the venue, we hired a large van for the first couple of days and were provided with transport by the Ministry of Health for the remainder of our stay which was greatly appreciated.

### **FUNDING**

The courses were supported by an ACEM (Australasian College for Emergency Medicine) Foundation International Development Fund Grant of \$4000 which covered the costs of transporting the equipment to Tonga, catering and printing of the manuals. Equipment costs were kept to a minimum as we were able to borrow 5 mannikins which were part of the teaching equipment available locally in Vaiola Hospital.

### **INSTRUCTORS**

There were 8 medical and 2 nursing instructors from around Australia and New Zealand. They were all self-funded with some instructors accessing education leave entitlements and others accessing annual leave. One of the nursing instructors was supported financially by their Local Health District.

### **ELSi**

12 doctors attended the 2-day ELSi course with 2 medical students observing on Day 1. The doctors included junior medical officers (registrars, RMOs, interns) currently working in ICU, anaesthetics, paediatrics, psychiatry as well as ED registrars from Vaiola Hospital and medical officers from the outer islands. As there were 6 skill stations, this meant that there were 2 participants per skill station which allowed lots of hands-on practice with a variety of procedures and skills.

The formal feedback from the participants was extremely positive. The main suggestion for improving the course was to include more information on the management of obstetric emergencies as many doctors spend considerable time on the various islands or remote clinics and the potential to encounter obstetric emergencies is what causes most fear.

### **SIREN**

47 participants attended the 2-day SIREN course including ED, non-communicable disease, reproductive health and public health nurses along with 2 health officers. There were 7-8 participants per skill station with the 2 nursing instructors each taking a skill station and the rest of the skill stations split between the medical instructors.

The formal feedback from the SIREN course was also extremely positive with many participants writing heart-warming messages of thanks and appreciation of the time and energy put into the teaching by each of the instructors. The lectures and skill demonstrations were regarded as clear and easy to understand and had increased the confidence of the participants in managing emergency cases in the future. The main suggestions for improving the course were to have instruction on IV access and that the course should run over three days rather than two.

### **THE FUTURE**

We were asked about the possibility of going out to some of the outer island groups (particularly

Vava'u, then Ha'apai) to provide a combined ELSi/SIREN course for the local medical and nursing staff and, if those courses were successful, to return to Nuku'alofa and provide a combined course at Vaiola Hospital.

The main advantage of a combined medical/nursing course would be to focus on teamwork between the nursing and medical professions. Nursing staff do not have a culture of questioning medical staff even if they appear to be departing from standard practice. We ran teamwork scenarios in both the ELSi and SIREN courses but it is apparent that this kind of session would be of far greater value if both the nursing and the medical staff went through the scenarios together.

I had discussions with the Medical Superintendent of Vaiola Hospital (Dr Lisiate K 'Ulufonua) and a DFAT representative who were both very positive about what the courses have delivered over the past 2 years and were interested in funding us to return in future years. Funding would cover the costs of transporting equipment to/from Tonga, catering and printing. The instructors would continue to be self-funded. As such, our intention is to return to Tonga (to Vava'u) next year.

### **CHALLENGES**

The only significant challenge was that one of the equipment boxes that we sent over had the lock removed at some stage during its journey from Australia and all of the introductory skill station kits were missing. It is not entirely certain where this happened but this presented a challenge for us as we set up the afternoon before the first day of the ELSi course. Fortunately, we were able to source enough equipment locally to run the skill stations without compromising the delivery of the courses. This could not have happened without the support of the ED NUM (Pinomi Latu). All borrowed equipment was returned at the end of the week.

### **CONCLUSIONS**

The course evaluation and feedback confirmed the importance and relevance of both courses to the participants. While there were many contributory factors, the presence of nursing instructors, in particular, was fundamental to the successful delivery of the SIREN course both last year and this year and it is strongly recommended that we involve nursing instructors for SIREN courses elsewhere whenever we can.

### **ACKNOWLEDGEMENTS**

I would like to acknowledge the invaluable support of Dr Lisiate K 'Ulufonua, Dr Viliami Vao and Pinomi Latu without whom we could not have achieved our shared goals, the participants for their open engagement and enthusiasm during each course and, finally, all of the instructors for their commitment, good humour and willingness to always put in the hard yards.

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