

INTERNATIONAL DEVELOPMENT FUND – 2012 GRANT REPORT

ALFRED-HUE EMERGENCY CARE PARTNERSHIP PROJECT

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The Alfred-Hue Emergency Care Project was delivered by the Emergency and Trauma Centre staff of the Alfred Hospital in Melbourne, in Hue, Vietnam in 2013 and 2014. The completion of this project was made possible through the generous support of the ACEM International Development Grant (2013) totalling \$AUD 9,000.

Emergency medicine is only just beginning to develop in Vietnam. In March 2010 the first annual Vietnam Symposium in Emergency Medicine was held in Hue, Vietnam. In April 2012 two Alfred Hospital Critical Care Nurses visited Hue University Hospital emergency department to provide training. Hue University Hospital has 300 beds and is usually overcrowded.

Important gaps identified within the emergency department during a 2012 visit by Alfred emergency staff, included: no triage system; no systematic assessment of patients; a lack of emergency medicine and emergency nursing knowledge; the under-utilisation and maintenance of equipment; and limited education programs.

The primary aim of the Alfred-Hue Emergency Care Partnership Project was to develop the capacity to improve emergency care in Hue. In September 2013 and again in February 2014, Alfred teams of two emergency physicians and two emergency, critical care trained nurses delivered two week programs in Hue University Hospital and Hue Central Hospital. For each visit, there were more than twenty emergency medical and nursing participants. Following the delivery of the Alfred Emergency and Trauma Team Training Manual, translated into Vietnamese, the program consisted of predominantly emergency department bed-side training with a two day formal training component. The focus of the program was on emergency triage and the systematic and team-based approach to managing the seriously ill or injured patient. There was large emphasis on scenario-based and real patient-based learning. Evaluation was conducted via written examinations, with formal and informal observation of emergency scenarios. Self-rating questionnaires demonstrated that the all participants believed they had improved across the key skills in managing the critically ill or injured patient.

The Project was also an excellent opportunity for collaboration between the key emergency care stakeholders in Vietnam and emergency physicians and emergency nurses from Australia. It is intended that there will be further engagement in the near future in an effort to further develop emergency care capacity in Vietnam.

1. BACKGROUND

Country: Vietnam

Organisation: Emergency and Trauma Centre, The Alfred Hospital, Melbourne

Contact person(s):

Dr Gerard O'Reilly Position, Emergency Physician

Ms Sally Charlton, Associate Nurse Manager

Project Start Date: 1 May 2013

Project Finish Date: 30 April 2014

Amount requested: \$AUD 11,560

Amount awarded: \$AUD 9,000

Emergency medicine is only just beginning to develop in Vietnam. In March 2010 the first annual Vietnam Symposium in Emergency Medicine was held in Hue, Vietnam. This event significantly raised the profile of emergency medicine and nursing in Vietnam. Importantly, a consensus document committing to the development of emergency medicine as a specialty was signed.

In April 2012 two Alfred Hospital Critical Care Nurses visited Hue University Hospital emergency department to provide training (see Attachment 2). Hue University Hospital has 300 beds and is usually overcrowded.

Important gaps identified within the emergency department during the 2012 visit included:

1. No triage system
2. No systematic assessment of patients
3. A lack of emergency medicine and emergency nursing knowledge
4. The under-utilisation and maintenance of equipment
5. Limited education programs.

So whilst emergency medicine has been identified as a priority across Vietnam by key stakeholders, observations suggest the persistence of gaps in the basic principles of emergency care delivery. There is a clear need for on-the-ground professional support and capacity-development.

2. PROJECT AIMS

(the extent to which the Project achieved its aims are added in italics)

The primary aim of the Alfred-Hue Emergency Care Partnership Project was to develop the capacity to improve emergency care in Hue.

The Project increased the capacity to deliver emergency care in Hue and Ho Chi Minh City, Vietnam

Secondary objectives of the Project were to-

1. Improve the systematic approach to the patient requiring emergency care in Hue
The systematic approach to the emergency patient improved significantly. The knowledge and skills required to assess and manage the emergency care patient in a systematic fashion, were increased considerably.
2. Develop the use of a triage system to prioritise the delivery of emergency care in Hue
There was little change to the system of triage practised in Hue. The capacity for the staff to understand the principles and practice of triage improved, particularly the ETAT approach and disaster triage.
3. Further develop linkages between Australian and Vietnamese emergency care providers and professional organisations.
Strong linkages were developed between Australian and Vietnamese emergency care providers in both Hue and Ho Chi Minh City.

4. Stimulate the development of emergency medicine and nursing as professions in Hue
In Hue, the collaboration between Hue Central Hospital and Hue University Hospital, in delivering emergency medicine specialty training, improved considerably. Furthermore, following the delivery of emergency care workshops by the Alfred team in Ho Chi Minh city, the local stakeholders requested support in establishing a specialty program in emergency medicine.
5. Support emergency care providers real-time in the workplace
The Alfred teams of emergency physicians and critical care trained emergency care nurses provided real-time patient-based support and training in the emergency departments of Hue University Hospital and hue Central Hospital.
6. Foster the engagement of Australian emergency care specialists in the development of emergency medicine in Vietnam
As a result of the Project, four Australian emergency physicians were engaged in the development of emergency medicine in Vietnam.

3. ACTIVITIES

(Achieved activities are described in italics)

The Project activities will include a total of 4 weeks of 4 emergency staff at a time (2 Emergency Physicians and 2 Emergency Nurses from the Alfred Hospital) on site at Hue University Hospital Emergency Department.

There was a total of 7 doctor-weeks and 9 nurse-weeks from the Alfred delivering the program in Hue in addition to leading the trauma team workshops at the national emergency conference in Ho Chi Minh City. The Alfred staff were:

*Dr DeVilliers Smit (FACEM)
Dr Gerard O'Reilly (FACEM)
Dr Joseph Matthew (FACEM)
Dr Mirjana Sikic (FACEM)
Ms Sally Charlton (Critical Care Nurse)
Ms Alicia Nay (Critical Care Nurse)
Ms Kate Saxton (Critical Care Nurse)
Ms Megan Higgins (Critical Care Nurse)
Mr Jean-Paul Miller (Critical Care Nurse)*

Module 1: Preparatory learning

Concise syllabus for pre-reading

Pre-contact evaluation: MCQ / SAQ / Self-rating questionnaires

The pre-course Emergency and Trauma Team Training (EATTT) manual was translated into Vietnamese and provided to all participants. Similarly, the written pre-course evaluation was translated into Vietnamese and completed by all participants.

Module 2: Contact training (1)

Alfred E&TC Staff: 2 Emergency Physicians and 2 Critical Care Emergency Nurses.

At least 2 emergency physicians and 2 emergency nurses were present for the contact training period.

Hue ED Staff: 10 Doctors and 10 Nurses

More than 10 Hue doctors and 10 Hue nurses participated in the training. For the Formal Training Program (2 days) there were 5 doctors and 5 nurses from each of Hue University Hospital and Hue Central Hospital.

Duration: 2 weeks

The team delivered the program from Wednesday 16 October to Saturday 26 October 2014

Program:**A. Formal: 2 Days**

Systematic approach to emergency care and triage

The Formal Training Program is provided as Appendix 1.

B. Patient-based learning

Working alongside local colleagues (Hue ED staff).

The Alfred team accompanied and supported the emergency doctors and nurses whilst working with patients.

Identification of local champions (2 doctors and 2 nurses) to be future trainers

Local doctors (2) and nurses (2) were identified as champions and participated in the translation and delivery of the training from the beginning.

C. Educator training for 4 local champions

A brief (half day) train the trainer program was delivered to all participants

Module 3: Contact training (2)

Alfred E&TC Staff: 2 Emergency Physicians and 2 Critical Care Emergency Nurses.

At least 2 emergency physicians and 2 emergency nurses were present for the contact training period.

Hue ED Staff: 10 Doctors and 10 Nurses PLUS 4 Champions (trainers selected in Module A)

More than 10 Hue doctors and 10 Hue nurses participated in the training. For the Formal Training Program (2 days) there were 5 doctors and 5 nurses from each of Hue University Hospital and Hue Central Hospital. 2 of the doctors and 1 of the nurses from Module 2 assisted with the training.

Duration: 2 weeks

The team delivered the program from: Friday 21 February and Friday 7 March, 2014.

Program:**A. Formal: 2 Days**

Systematic approach to emergency care and triage

The Formal Training Program is provided as Appendix 1. Additional emergency nurse airway workshops and trauma team training workshops were also delivered by the Alfred team at the national emergency conference in Ho Chi Minh City.

B. Patient-based learning

Working alongside local colleagues (Hue ED staff) and 4 Champions

The Alfred team accompanied and supported the emergency doctors and nurses whilst working with patients.

Module 4: Evaluation

Post-contact evaluation: MCQ / SAQ / Self-rating questionnaire / Observation Report

The written pre-course evaluation was translated into Vietnamese and completed by all participants.

Collaborative proposal for further emergency care capacity development

There was considerable discussion with local stakeholders in Hue and Ho Chi Minh City regarding collaborating on future projects for emergency care capacity development.

4. OUTCOMES

The expected outcomes of the Project were (*with actual outcomes in italics*):

1. A systematic approach to emergency care at Hue University Hospital
The systematic approach to the emergency patient improved significantly. The knowledge and skills required to assess and manage the emergency care patient in a systematic fashion, were increased considerably.
2. The implementation of patient triage at Hue University Hospital
There was little change to the system of triage practised in Hue. The capacity for the staff to understand the principles and practice of triage improved, particularly the ETAT approach and disaster triage.

3. A measurable improvement in the quality of emergency care to patients presenting to the Hue University Hospital Emergency Department
Immediately following the Formal Training components of the EATTT program, an improvement in the team-based and systematic approach to emergency care was noted. Whether this was sustained would require an additional period of observation at least 6 months post-project.
4. The establishment of strong linkages between Australian and Vietnamese emergency care providers and professional emergency medicine and nursing organisations
As a result of the Project, four Australian emergency physicians and five emergency nurses were engaged in the development of emergency medicine in Vietnam. The senior emergency staff in Hue (Hue University Hospital and Hue Central Hospital) requested ongoing engagement of Australian emergency physicians in their local specialty training program. Similarly, the senior emergency staff of Ho Chi Minh City (Cho Ray Hospital) requested ongoing engagement in their planned establishment of an emergency medicine specialty training program in 2015.

5. EVALUATION

The Project were evaluated according to the following methods (*actual evaluation methods are described in italics*):

A. Pre-contact

1. Written examination conducted by email, including Multi-Choice Questions and Short-Answer Questions

The written examinations and self-rating questionnaires were completed by all participants.

2. Self-rating questionnaire (knowledge and skills)

The written examinations and self-rating questionnaires were completed by all participants.

B. Day 1-2 of contact

1. Observation, recording results using pre-formed checklists

Emergency and trauma team checklists were completed for all of the emergency and trauma team scenarios, providing constructive feedback immediately post-scenario.

2. Interview of ED staff

Emergency medical and nursing staff, plus key stakeholders, were interviewed on a regular basis.

C. End of Module 2

1. Observation

Emergency and trauma team checklists were completed for all of the emergency and trauma team scenarios, providing constructive feedback immediately post-scenario.

2. Written tests (MCQ/SAQ/Self-rating questionnaire)

The written examinations and self-rating questionnaires were completed by all participants.

D. End of Module 3

1. Observation (of approach to emergency care)

Emergency and trauma team checklists were completed for all of the emergency and trauma team scenarios, providing constructive feedback immediately post-scenario.

1. Audit of triage

In the absence of a structured approach to triage, a formal audit was not conducted. Instead the focus was on familiarisation and practice of emergency (ETAT) and disaster triage

2. Written tests (MCQ/SAQ/Self-rating questionnaire)

The written examinations and self-rating questionnaires were completed by all participants.

A summary of results of the self-rating questionnaire are provided in Appendix 2.

E. Module 4 (3 months post-contact)

Written test and questionnaire

3 months post contact would be 31 July which post-dates the completion date of this report.

6. SUSTAINABILITY

Sustainable outcomes were ensured by the following safeguards (*actual attention to sustainability of outcomes is described in italics*):

1. The Champions were to be provided access to all learning materials in order to continue the training program and evaluation.
All participants, including the champions, were provided with a translated copy of the Emergency and Trauma Team Training program manual. In addition, the champions were provided with copies of lecture presentations, emergency and trauma team scenarios and evaluation materials (MCQs, SAQs, Self-rating questionnaires, Scenario checklists)
2. The systematic approach to emergency care was to be further developed into ED Guidelines for Hue University Hospital.
The Emergency Departments of both hospitals have a translated copy of the EATTT manual. To what extent it has been integrated into local ED guidelines remains unclear.
3. The triage system was to be recorded in writing and the Champions were to include triage in their ongoing program.
While all participants have a greater understanding of triage and its practice, formal triage has not been fully adopted in Hue.
4. The foundations of ongoing collaboration was to be built through:
Regular email and skype contact
Additional funding proposals
Seeking opportunities for Champions to attend professional meetings (e.g. ACEM ASM) and undertaking an observership at The Alfred Hospital
A comprehensive funding proposal for emergency and trauma team training in Hue and Ho Chi Minh City has been submitted to DFAT for consideration. A local emergency physician (Dr Tra) of the biggest hospital in Vietnam (Cho Ray Hospital, Ho Chi Minh City) has been proposed as a candidate of the ACEM International Scholarship Award. If successful, Dr Tra will attend the ASM in Melbourne and visit several Melbourne EDs. Dr Tra is leading the charge for HCMC to commence its own Emergency Medicine specialty training program in 2015.