PROJECT TITLE: Primary Trauma Care Courses in Binh Dinh

SUMMARY

Reference : 116 / 06

Location: Quy Nhon, Viet Nam

Commencement Date: 1/5/06

Completion Date: 12/5/06

Names of Participants: Mr Bunny Honiss, Dr David Morris, Dr Paul O'Grady, Dr Allan Panting, B.S. Nguyen Huu Tu, Ms Le Thi Hien, Ms Vo Thi Bich Thao, Mr Nguyen van Tho, Mrs Lien Morris

Project Partners: Binh Dinh Department of Health

Aims of Project: The introduction of Primary Trauma Care courses to Binh Dinh Province.

Activity Undertaken & Outcome(s) Two Primary Trauma Care courses were planned and the equipment organised to allow their successful implementation. The courses were completed satisfactorily with 18 participants at the first course and 16 at the second. One participant in the first course and five in the second achieved a pass (80%) in the test at the completion of the course, but all demonstrated a marked improvement in their knowledge and the practical skills required to provide the optimal care of patients during the primary phase of trauma care. The failure to distribute the course manual to each participant prior to the commencement of the courses significantly disadvantaged them.

Meetings were held with B.S. Ho Viet My and Ms Nguyen Thi Nhu Tu at the Department of Health both before and following the Primary Trauma Care courses.

A meeting was held at the Province Hospital with Dr Pham Ty and key members of the hospital staff reviewing further Trust assistance for the hospital.

A meeting was held with Julie Vesey, VSA, to assist the preparation of her pharmacy project in Binh Dinh during the next year.

Recommendations:

1. **The New Zealand-Viet Nam Health Trust is strongly urged to commit to on-going support for Primary Trauma Care courses for a further two years. Ideally a minimum of two courses should be held every six months.**
2. **The Trust is encouraged to make available funding to allow for the refinement and adapting of the course and the manual to more adequately meet the needs of Binh Dinh Province.**
3. **Vietnamese doctors with the appropriate skills must be identified and trained as instructors. Initially they will require some support in this role until the course is satisfactorily administered and run by local people.**
4. **If it is possible the Department of Health should encourage all hospitals in Binh Dinh to undertake a review of their acute trauma care facilities and equipment and develop plans for a progressive improvement.**
5. **If it is possible the Department of Health and the Binh Dinh People's Committee should work to develop a plan and secure funding to allow the early implementation of a regional ambulance service.**
6. **With Dr Pham Ty's recent appointment as Director of the Province Hospital the Trust should look to strengthen its link with the hospital.**

PROJECT REPORT

TO THE NEW ZEALAND - VIET NAM HEALTH TRUST

1. Introduction

2. Title of Project Primary Trauma Care in Binh Dinh

a. Reference Number : 116 / 06

b. Place Quy Nhon

c. Dates 1/5/06 to 12/5/06

d. Participants Mr Bunny Honiss, Dr David Morris, Dr Paul O'Grady, Dr Allan Panting, B.S. Nguyen Huu Tu, Ms Le Thi Hien, Ms Vo Thi Bich Thao, Mrs Lien Morris

3. Intention - *Aims of the Project / Terms of reference /(List of tasks)*
The introduction of Primary Trauma Care courses to Binh Dinh.

4. Background There has been New Zealand –Viet Nam Health Trust involvement in Binh Dinh province for approximately 10 years. During this time there has been a focus upon surgery and in particular orthopaedic and trauma care. Those who have assisted the Trust in this area have observed very rudimentary services and care to assist the acutely injured patient. As the care provided during the first hour following injury (The Golden Hour) greatly influences the outcome, it was determined that this should become a focus for Trust involvement. This coincided with a Viet Nam Health Ministry decision to improve this aspect of health care.

Advanced trauma care courses have been available in developed countries for 15-20 years following the development of the Advanced Trauma Life Support course by the American College of Surgeons in the mid 1980s. A version of this course, adapted to suit countries with less well-developed health care systems, was made available a decade later and subsequently adopted by the World Health Organisation as the Primary Trauma Care course. This was first introduced into Viet Nam in Saigon in 2002 and Hanoi in 2003 with further courses held subsequently. No courses have been made available in provincial Viet Nam.

With the intention of bringing the Primary Trauma Care programme to Binh Dinh province Dr Allan Panting attended a course in Hanoi in November 2005, participating as an instructor. This allowed an informed review of the course prior to its introduction into a more rural environment. The link was subsequently established with the Primary Trauma Care Trust headquarters in the United Kingdom and courses planned for May 2006.

5. Activity report

a. *Where and with whom*

Meetings were held with B.S. Ho Viet My and Ms Nguyen Thi Nhu Tu at the Department of Health both before and following the Primary Trauma Care courses. The exit meeting was attended by Mr Bunny Honiss and Mr Nguyen Phuoc (VSA) and Barbara Dawson (NZVNHT). This was a very useful meeting reviewing some of the factors limiting the rapid implementation of improvements in primary trauma care. The opportunity was taken to further explore the development of an ambulance service in Binh Dinh.

Two Primary Trauma Care courses were completed at the Department of Health, Quy Nhon. The first courses were restricted primarily to doctors (although subsequent courses will be made available more widely to other health care workers including nurses).

b. Other institutions visited

Binh Dinh General Hospital (Province Hospital) meeting with B.S.Pham Ty (Director), Mr Thien (Head Nurse), B.S. Oanh (Head of Outpatient Department), D.S Hue (Deputy Director Pathology Department), B.S. Can (Director of Radiology) and B.S. Ngoc. The Trust's longstanding commitment to the Province Hospital was confirmed with the emphasis on assisting further education. Topics such as Primary Trauma Care, infection control, audit and better antibiotic usage were areas of particular concern. Dr Ty welcomed Julie Vesey, VSA, and expressed his appreciation that she would develop a project whereby pharmacists skills would be used better. He encouraged her participation at the Province Hospital. He expressed his desire to improve the communication with the Health Trust and felt there were a number of areas in which assistance would be valuable.

A meeting was held with Julie Vesey to assist her in her preparation of her pharmacy project during the next year.

c. Equipment delivered

- 2 resuscitation manikins (adult and infant) to enable the development of airway management skills, including endotracheal intubation.
- 1 manikin model allowing the detection and consideration of the management of an extensive range of head injuries.
- A large amount of supportive equipment including face masks, oral airways, endotracheal tubes, ambu-bags and masks, i/v cannulae, i/v giving sets, intraosseous needles, Stiffneck cervical collars, intercostal drainage tubes and underwater seal drainage sets.

d. Details of interviews, training, workshops, links with Vietnamese health agencies etc.

18 participants attended the first course and 16 the second. It was felt that the initial courses should be directed towards medical staff to achieve the maximal effect and to secure a strong medical commitment to future courses. Besides those working in the Province, City and Bong Son hospitals, doctors from many district hospitals in Binh Dinh Province attended. The five instructors all had extensive experience in teaching – three having previous experience in similar trauma training programmes. The Binh Dinh Department of Health (through the encouragement of B.S My and D.S Pham Thi Thanh Huong and the direct assistance of Ms Tu) gave considerable support and offered the large meeting room for each course.

Each course consisted of a series of semi-formal lectures through which much of the basic knowledge, fundamental to the practice of appropriate trauma care, was reviewed. This was reinforced in 30 minute practical skills and discussion workshops and a series of scenarios where each participant had the opportunity to practice the skills required. A short test with 30 multi-choice questions completed the course and enabled further assessment of each participant's knowledge and skills. Both days were long, commencing at 7:30am and finishing after 5:00pm with just one hour for lunch – this proved demanding for the Vietnamese. At the completion of each course participants hosted a celebratory dinner at a local seafood restaurant – these were relaxed informal evenings with many toasts completed in the customary manner. (Relay result: Viet Nam 1 New Zealand 0!).

The opening of the first course and the introductory lecture attracted the attention of the media resulting in a five minute segment on the local television network and an item in the newspaper.

6. Findings *a. Training needs, equipment requirements, suppliers etc.*

- The level of knowledge and skills demonstrated by those participating in the two courses varied greatly. Participants interacted much better during the second course

with numerous questions arising at every opportunity. There did not appear to be any obvious explanation for the considerable difference between the groups.

- Following a careful review of the participant's performance and the programme after the conclusion of the first course, some adjustments were made to the second course to try and improve communication between instructors and participants (recognising that interpreters were necessary for much of the time). Care was taken to try and reinforce vital aspects of information during the different facets of the programme.
- The course manual requires some expansion and refinement to better meet the local needs of those participating. Given the coastal environment and the relatively high incidence of drowning there should be a section devoted to the management of this form of injury.
- The manuals should be made available to each participant at least one month prior to the course and they should be strongly encouraged to read it carefully and thereby come to the course well prepared.
- The frequent necessity for interpretation slowed the delivery of information and the incorrect selection of words and phrases by the interpreters on some occasions caused some difficulty for some participants. (This should not be seen as a criticism of any of the interpreters, but a recognition of the technical medical language which was new to them.)
- It was felt that the training scenarios offered the opportunity to reinforce knowledge and skills and that these could be developed further. This will require the provision of some additional equipment.

b. Interpreters, communication

The interpreters were an invaluable asset and the course would have been much the poorer if they had not been available. The close cooperative link with VSA in this area is of great value to projects such as this. As an additional benefit our interpreters had the opportunity to increase their medical vocabulary and understanding and this will inevitably have future benefits.

Consideration should be given to using Vietnamese for all slide presentations to reduce the need for translation of this information. This would allow the interpreters to concentrate upon additional information provided verbally by the instructor. Providing all information consistently in one language during the more formal presentations is likely to create a better learning environment.

c. *Travel, accommodation*

An excessive amount of time is lost through travel to Viet Nam with the requirement to make overnight stays in both Singapore and Saigon. This is unproductive time and this aspect of project planning requires some further consideration with the Trust's travel agents.

The bicycles purchased by the Trust and made available through Barbara Dawson are an asset and were used on a daily basis during this project. They show some signs of wear and regular maintenance should be ensured.

Accommodation for the overnight stay in Singapore is at some considerable distance from the airport and consideration should be given to the use of a more conveniently sited hotel to minimise the travel time. The presently recommended accommodation in Saigon (Hanh Chuong Hotel in Pham Ngu Lao) is very convenient, well-maintained and enhanced by the very helpful staff. Barbara Dawson continues to offer back-packer style accommodation which is adequate (especially if air-conditioning is available) and offers very good interaction with the local community.

7. **Recommendations** - *in this section include your **observations** and **opinions** regarding **suitability** and **sustainability** of this project with particular reference to reception of training, organisation of patients, equipment, attitude etc.*

a. The Primary Trauma Care course should be established as the basis for trauma care in Viet Nam. It is well-suited to the needs of the population in Binh Dinh Province. All who attended the first courses confirmed the necessity for and value of this course, but felt that they would remain severely limited in practice by the lack of many basic items of equipment.

b. Continuing support is essential to promote the necessary improvement in the standard of initial trauma care currently available throughout the province. The New Zealand-Viet Nam Health Trust is strongly urged to commit to on-going support for a further two years, thereby allowing the training of local doctors who can take over the responsibility for this work. While this course is directed specifically towards the care of acutely injured patients, many of the principles emphasised are applicable to all patients and a more widespread improvement in health care can be expected as a valuable secondary outcome of this initiative.

c. The Trust is encouraged to make available funding to allow for the refinement and adapting of the course and the manual to better meet the needs of Binh Dinh Province. This will require a relatively small additional expenditure for interpreters and some additional equipment to support the skill stations. It will be necessary to communicate with members of the Primary Trauma Care Trust and secure their endorsement of any substantive changes to the manual or course.

d. While education in and practise of the skills necessary to provide a high standard of acute trauma care is a fundamental requirement, it is no less important that facilities and equipment are of an adequate standard. Currently there appears to be a widespread lack of many basic items. This includes essential items such as the immediate availability of oxygen, collars to provide protection for the cervical spine, and equipment such as laryngoscopes and endotracheal tubes to maintain an airway.

   In addition, Emergency Departments which have been assessed are small, poorly laid out and with immobile beds which are low and provide very poor access to the acutely injured patient. It is essential that high priority be given to this aspect of acute trauma care if the education programme is to achieve any measurable benefit. Some cost will be involved, but numerous relatively simple changes could be implemented immediately at little additional cost.

   The Department of Health may be able to stimulate all hospitals in Binh Dinh to undertake a review of their facilities and equipment.

e. A major obstacle to the provision of good primary trauma care is the lack of an adequate ambulance service. This undoubtedly results in avoidable deaths and increased disability and requires urgent attention if there is to be significant improvement in the care made available to the acutely injured patient. (It has been long recognised that the standard of care provided during the first hour following injury greatly influences the final outcome.) There will be additional costs, but this must be offset against the value placed upon lives saved and a reduction in permanent disability arising from accidents.

   The Department of Health and the Binh Dinh People's Committee are encouraged to develop a plan and secure funding to allow the early implementation of such a service. Perhaps Mr Bunny Honiss might be encouraged to assist in this part of the Primary Trauma Care project.

8. Acknowledgements

- The Primary Trauma Care Trust and the World Health Organisation for developing and making available this invaluable educational resource. In addition a special tribute must be paid to Dr Marcus Skinner and B.S Nguyen Huu Tu who encouraged Dr Panting to participate as an instructor in Hanoi and strongly supported the development of the courses at Quy Nhon.
- The Binh Dinh People's Committee and the Department of Health who have given strong support to this project since it was first proposed. Special thanks are due to B.S. My and D.S. Houng who have been of great practical assistance in the planning and completion of the first courses.
- The New Zealand-Viet Nam Health Trust who gave approval for the initiation of this project and made funding available at a time when funding was uncertain.
- Barbara Dawson who worked very hard over an extended period to ensure that all arrangements were completed to permit the courses to proceed as planned.
- Our interpreters, Ms Thao, Ms Hien, Mr Tho and Mrs Lien Morris, without whom a course such as this could not have been contemplated.
- Each of the 34 people who completed the first two courses and who participated fully throughout the two days (and then hosted a very enjoyable meal on the final evening).
- My fellow instructors Dr David Morris, Dr Paul O'Grady, B.S. Nguyen Huu Tu and Mr Bunny Honiss whose commitment in preparing for the course and maintaining enthusiasm throughout ensured all participants gained greatly. Special thanks are due to B.S. Tu for his willingness to assist in the development of this course and his wise counsel.
- Thanks are also due to Ms Nguyen Thi Nhu Tu of the Department of Health and Sunny Panting who each filled the role of the "goffer" – indispensable to the final success of these two courses.

9. Summary: (one separate page as above)

Policy Adopted June 2005
Review June 2006
Reference: Report to NZAID & NZVNHT Assistance with Reporting, Carol Nelson, September 2005.