Primary Trauma Care

Satellite Clinic

19th-23rd September 2011

With support from the Primary Trauma Care Foundation + the Australian society of Anaesthetists

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Abbreviations

- ABCDE Airway, breathing, circulation, disability, exposure
- AHC Angkor Hospital for Children
- HC Health Center
- MCQ Multiple choice questions
- OD Operational District
- PTC Primary Trauma Care
- RH Referral Hospital
- SRH Sotnikum Referral Hospital
- SRPH Siem Reap Provincial Hospital
- URC University Research Council

Primary Trauma Care Course (PTC)

- The primary trauma care course is taught internationally to healthcare staff, policemen, rescue workers and anyone on the frontline of trauma care
- It is designed to be context appropriate and adapted to the local environment, teaching participants to utilize the equipment available however basic
- The course is run over 2 days. Able participants of the first course are then invited to join a one day instructors course followed by teaching on the second 2-day course under supervision of the PTC instructors
- The new instructors can then instruct future courses in different locations
- The course is very practical and uses lectures, skills stations, discussion groups and scenarios to teach theory and practice

Objective of PTC course

- The objective of holding the course in Satellite was to establish PTC in Cambodia in order to provide health center and government hospital staff with the knowledge and skills to provide first line trauma care in their facilities

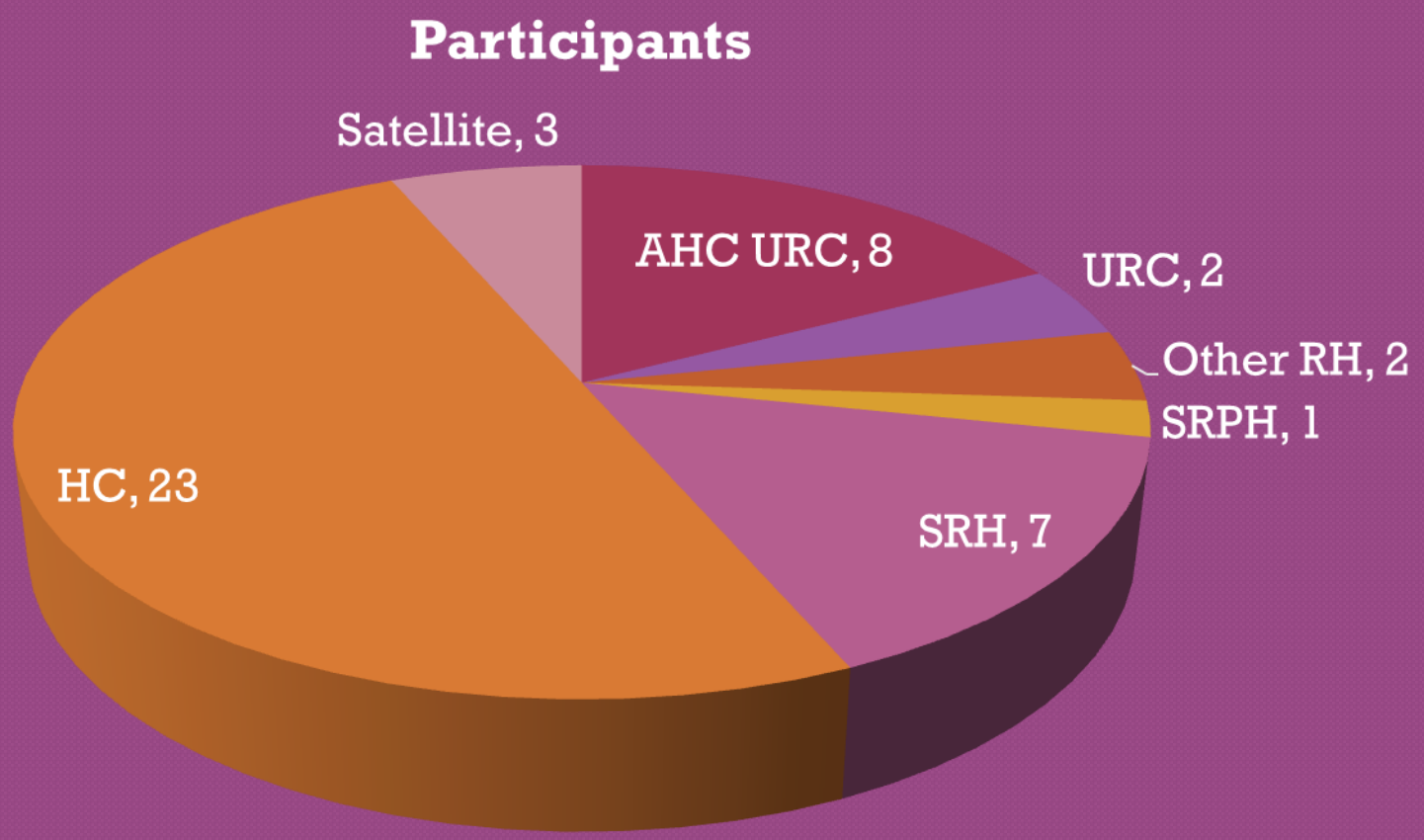
- The course teaches participants how to care for a trauma patient in a systematic and effective way. This can literally be life-saving

- This was the first PTC course in Cambodia and building on the success of the course in Satellite, the aim is to take the course and teach it in other provinces

Participants

- A total of 50 participants were invited over the 5 days from all 23 health centers in Sotnikum OD, Siem Reap provincial hospital, Sotnikum referral hospital, URC, AHC external project staff, Angkor Chum RH, Sreisiphon RH, Satellite and the OD
- This ensured a broad range of participants who all bring their particular skill and experience to the course
- Finally 46 participants joined the course as shown next slide

Participants



Instructors

- Dr Suzi Nou -Anaesthetist- Cambodian country representative PTC. Course director and experienced PTC instructor (Australia)
- Dr Sathi Seevanayagam – Specialist Anaesthetist and experienced PTC instructor (Australia)
- Dr Jovy Carpio- Trauma surgeon, with skills in making everyday items into essential equipment (Phillippines/Australia)
- Dr Esther Wilson- ER physician working in Battambang hospital with VSO/URC (UK/Cambodia)
- Facilitators: Lori and Bill Housworth AHC Director facilitated the scenarios on the first day (USA/Cambodia)

Planning and preparation

- Planning and preparation for the course began 7 months ago
- A pre-course faculty meeting was held with all instructors, and daily faculty meetings were held after each training day to review progress and make improvements for the following day
- During the week Samnang, Satellite Administration Manager and his hard working team took care of all logistics: organizing transport, certificates, food, refreshments and the important banner (photo)

Course outline

- Through lectures, skills stations, discussion groups and scenarios the course essentially teaches participants the ABCDE of trauma, primary and secondary survey, shock, log roll, managing a cervical spine, chest injuries, head and spinal trauma, trauma in children and pregnancy, burns, transportation, neurological assessment and disaster management

Lectures

- The PTC foundation provided invaluable funding to translate the manual and slides into Khmer
- This means PTC is now accessible to all Khmer health staff; many of whom do not understand English
- Lectures gave participants the theory in a concise and systematic way
- Participants were engaged and asked lots of good questions which is an essential part of effective learning

Discussion groups

- Discussion groups provide the forum for participants to talk about their experience on a particular topic
- This is essential to understanding the local context and conditions participants are working in
- It also enables debate, for ideas to be shared and a collective understanding reached

Skills practice

- An essential part of the course is developing practical skills and applying theory to practice
- Here in small groups participants were able to practice individual skills in a safe environment with instructor support
- Skills involved stabilizing the cervical spine, log roll, airway management, immobilizing the pelvis among others

Effective improvisation

- A great part of the course adapted for the local context was teaching participants how to utilize basic items to provide important aids to trauma care and patient stabilization for transfer
- Cardboard boxes were used to make cervical collars and bed sheets to stabilize a broken pelvis
- Participants were taught how to make and use such items which will help ensure a safer transfer of a trauma patient to a higher level facility

Cardboard and 2 IV fluid bottles used to make a head box to stabilize the cervical spine

Cervical spine

- Readily available items like cardboard boxes enables even the most basic of health facilities to provide safer care when other equipment is unavailable

- Here Dr Jovy Carpio Trauma surgeon is teaching the Siem Reap Provincial Hospital ER doctor how to make and fit a cervical collar from a cardboard box

Pelvic support

- Effective stabilization of a suspected broken pelvis can be achieved by using a standard bed sheet folded in 3 and secured firmly around the patient

- Here the instructors demonstrate how to safely insert the pelvic support doing a log roll, and also how it must be secured firmly in order to be effective

Demonstration scenarios

- Scenarios combine the theory, discussion groups and skills practice together in a pseudo real case situation
- Here the instructors are demonstrating a scenario in order to give participants an idea of what is required
- Scenarios are an effective teaching method but are a relatively new style of teaching and learning in Cambodia

Scenarios

- After the demonstration participants were able to practice scenarios themselves and get feedback on their performance
- Different scenarios are used to practice different trauma cases and situations including trauma in pregnancy (photo below)

Special facilitator

- AHC Director Dr Bill Housworth came to assist the PTC instructors facilitate the practical scenarios
- Being an experienced ER doctor and a passionate teacher he has a lot to share
- Dr Bill enjoys these courses and the interactions with the participants; always providing them with a good challenge to solve

Evaluation MCQ

- In order to evaluate the learning from the course a pre and post test MCQ was given to participants
- Scores showed a significant increase in knowledge (over 25%) at the end of the course in both groups

	Average pre test score	Average post test score	% increase
Course 1	49%	74%	25%
Course 2	41%	68%	27%

Instructors course

- On 21st September a one-day instructors course was held and 9 potential new instructors were taught how to instruct the PTC course
- A visit to a local health center enabled all instructors to understand the context of first line healthcare provision in Cambodia
- All instructed successfully on the second course under the supervision of the PTC instructors from Australia

9 new instructors with Dr Suzi Nou, 8 from AHC External project and Dr Rithea from Satellite

Future plans

- A group of new highly motivated instructors are investigating other sites where PTC may be taken in the future, with the possibility of another course in a major regional hospital before the end of the year

- From there the plan would be to roll out the PTC course to other health care facilities and RH hospitals in Cambodia in the future

Impact of course

- As Cambodia develops roads get busier and cases of trauma have increased dramatically
- Trauma cases are often seen in our ER mainly from road traffic accident or falling from a tree or house
- Other trauma injuries involve machinery or farming equipment and also cases of deliberate injury and abuse
- We hope that health center staff and RH staff will now be better prepared and skilled in treating these patients and transferring them to us safely

Awards and participation

19TH + 20TH SEPTEMBER 2011

22ND + 23RD SEPTEMBER 2011

Conclusion

- Overall the course was a great success with 46 healthcare staff successfully completing the course and an additional 9 staff becoming instructors

- The course was practical and relevant to the staff participating, and we hope to follow up on the application of the learning to practice in the future

Thanks

- Sincere thanks to Dr Suzi Nou for organizing and directing the course, and for the commitment and determination to establish PTC in Cambodia where it is greatly needed
- Thanks to Dr Sathi Seevanayagam, Dr Jovy Carpio and Dr Esther Wilson for sharing their time and experience through teaching on the course
- Thanks to the PTC foundation and the Australian Society of Anaesthetists for their support
- Finally thank you to all the participants who very actively engaged, and will now hopefully put their learning into practice