

Primary Trauma Care Course, Jaffna, Sri Lanka

January 20th-22nd 2004

Purpose of the visit

To visit Jaffna in Northern Sri Lanka to teach a PTC course and Instructor course, prior to the attendance of the instructors and others at the Scientific Sessions of the College of Anaesthesiologists of Sri Lanka, whose focus was on Trauma.

Executive summary

A team of 3 instructors from the UK were joined by Professor Rebecca Jacob from South India and Dr Shirani Hapuarachchi from Colombo to teach the course.

The local co-ordinators had selected twenty doctors from the Jaffna and the Northern province of Sri Lanka, who would form the nucleus of the future instructor body in that region.

A two day PTC course and subsequent one day instructor course were run, with in addition a half day BLS training session run in parallel to the morning of the Instructor course.

Presentations at the Plenary Sessions of the College of Anaesthetists introduced PTC to a wider audience of several hundred and this was enthusiastically received.

Over the past year the PTC programme has been extensively adopted in Sri Lanka and this has also impacted very substantially at a much broader level on Trauma management as a whole in the country.

Background

In January 2003 a joint approach was made to PTC headquarters by the Colleges of Anaesthesiologists and Surgeons of Sri Lanka for a PTC course and instructor course to be run in Colombo associated with the Annual Scientific Sessions of the Sri Lankan College of Anaesthesiologists. This proved very successful as further outlined below, and following this two of the 2003 instructors, James de Courcy and Sarah Bakewell, were invited back to speak (on subjects other than PTC) to the 2004 Sessions. In addition Douglas Wilkinson had been invited to the Sessions as Chief Guest. In view of this the PTC group offered to be involved in a further course or instructor course around the time of the Sessions.

Meanwhile Drs Preman Jeyaratnam and Thayalan Ambalavanar, the latter Consultant Surgeon in Jaffna and the former an expatriate Tamil now a consultant Anaesthetist in Stoke on Trent, approached PTC with a view to running a PTC course in Jaffna. It was arranged that JdeC and SB would go to Jaffna before the beginning of the Sessions and Professor Rebecca Jacob also offered to join the group, with in addition Mrs Diane Wilkinson coming to provide educational input: it was planned to teach a 2 day PTC course and then a 1 day instructor course immediately afterwards.

Sri Lanka sadly has very extensive experience of Trauma, not least because of the conflict that was experienced for 20 years that has only recently ceased. This has led to considerable casualties both military and civilian not only in the North of the country but also, with terrorist bombings and other attacks, throughout the country. In one unit in the north, large numbers of casualties were experienced, with up to 284 victims on 24 hours. An additional result was considerable experience in disaster planning and on site triage.

Throughout the country there is a tremendous depth of trauma experience with suicide and other bombings that, despite the relative lack of coverage in the Western press, vies with that of Israel and Palestine. On one occasion, the bombing of the Central Bank, there were 1200 casualties, which overwhelmed Colombo hospitals' emergency services.

In addition there is a high level of trauma from road traffic accidents with other common problems being burns and some violent crime. As in elsewhere in the Developing World, traffic is busy and accidents common. In Jaffna and surrounding areas road trauma had less impact before the ceasefire due to fuel shortages, but with the opening up of the A9 and increased traffic this is changing.

Transport

Last year I commented that there was as yet no ambulance service though moves are being made to set one up in Colombo. First responders to accidents tend to be the Police or passers-by, and though private ambulances are available these are variable in availability and are used more for interhospital transfers. Transport to hospitals tends to be in three wheelers (autorickshaws) or tractors and trailers. This situation has changed and continues to develop as outlined below.

Healthcare provision with respect to Trauma

In Sri Lanka as a whole the state provision of healthcare is free at the point of service throughout, with some additional private provision. There is no formalised state Primary Care service, and most patients self-refer to hospital out-patient departments or to Accident and Emergency units: there are a number of private primary care clinics. Hospital provision varies and the level 1/2/3 model as discussed in the Primary Trauma Care course is very applicable here, with the biggest hospitals for instance in Colombo and Kandy being very large with a full range of specialist services and imaging. Smaller regional hospitals (still very large in many cases) will often have a small number of general surgeons with or without orthopaedics, and few senior anaesthetists.

There is also a network of small rural hospitals with very limited resources.

Transport between the hospitals for definitive care is often difficult, with long distances over very busy roads of variable quality, and often in remote and rural areas.

Jaffna, in the Northern Province of Sri Lanka, has for the duration of the conflict since 1983 been substantially isolated from the rest of the country and though there has been a peace accord resources are still very limited. There was tremendous bloodshed involving the civilian population during the war, and during this time supplies of medical equipment and drugs were largely embargoed. During the conflict considerable structural and organisational damage was done to the medical services in Jaffna and its environs. Professionally too the medical staff were and to an extent still are isolated from the rest of the country.

Though the peace accord has caused cessation of hostilities there are still regular land mine and other injuries. The depth of trauma experience of those who have been working in Jaffna during the conflict is vast.

Key staff involved in planning and co-ordinating

Local – Dr Thayalan Ambalavanar and (from UK) Dr Preman Jeyaratnam. Dr Ambalavanar and a colleague had originally been hoping to attend the PTC course held in Colombo in 2003 but were unable to attend.

Co-ordinator – Dr James de Courcy

Instructors – Dr James de Courcy, Dr Sarah Bakewell, Professor Rebecca Jacob. Diane Wilkinson provided educational input and taught the Instructor day with JdeC. During the morning of this day SB and RJ taught a BLS course and provided instructor training for a group of doctors and nurses who will form the nucleus for BLS training in Jaffna. In addition we were delighted that Dr Shirani Hapuarachchi, who has been instrumental in driving forward the PTC programme in Southern Sri Lanka during the past year and is President of the Sri Lankan College of Anaesthesiologists, was able to join us for the first day and a half of the course.

Those attending the course were of a range of seniority, and we were delighted that three of the four consultant surgeons (TA, Dr Jeyaratnam and Dr Raviraj) were able to attend the course.

Overall Timetable

Sun 18 th	arrive Colombo
Mon 19 th	fly to Jaffna, visit course venue and orientation, faculty meetings.
Tue/Wed 20-21 st	PTC Course
Thurs 22 nd	Instructor course
Fri 23 rd	Return flight to Colombo, Opening Ceremony of Scientific Sessions
Sat/Sun 24-25 th	Scientific Sessions.

Course members

Name	Employment
Ambalavanar, Dr D C	Senior Lecturer, Dept Surgery, Faculty of Medicine, University of Jaffna
Devanesan, Dr (Mrs) V	MO Anaesthesia
Ellano Unaniar, Dr K	SHO surgery
Gunaratnam, Dr (Miss) Yasothara	MO OPD
Jayakumar, Dr N	MO Anaesthesia
Jayasundaram, Dr K	surgical unit
Jeyaratnam, Dr Preman	Consultant Anaesthetist, North Staffs University Hospital, Stoke on Trent, UK
Jeyaratnam, Dr	Consultant Surgeon, TH Jaffna
Kulanayagam, Dr Karthigesu	MO OPD
Kumaravel, Dr S	SHO Surgery
Mugunthan, Dr M S	SHO Surgery Jaffna Teaching Hospital
Pradeepkumar, Dr G	SHO surgery, Jaffna General Hospital
Raviraj, Dr	Consultant Surgeon, TH Jaffna
Selvavel, Dr V	MO Surgery
Sivakonesan, Dr S	SHO Surgery Jaffna Teaching Hospital
Sivapalan, Dr S	Surgery, Ponnampalam Memorial Hospital,
Sivathanan, Dr V	SHO Surgery
Sriskantharajah, Dr N	SHO Surgery, TH Jaffna
Theivendran, Dr (Mrs) S	Consultant Anaesthetist, TH Jaffna
Vaasdeva, Dr V	MO District Hospital Thellipalai



*PTC Course, Jaffna, Sri Lanka
20-22 January 2004*

Course Instructors



The instructors were

- Dr James de Courcy, Consultant in Anaesthesia and Pain Management from Cheltenham, UK,
- Dr Sarah Bakewell, Consultant Anaesthetist from Gloucester, UK,
- Professor Rebecca Jacob from CMC Vellore, South India.
- Mrs Diane Wilkinson, Educationalist, Oxford, UK
- Dr Shirani Hapuarachchi, Consultant Anaesthetist, NHSL, Colombo (not pictured).

Contents of the Primary Trauma Care Course

The PTC course was held over two days in the School of Nursing Lecture Hall at Jaffna Teaching Hospital, this being a large lecture room with a digital projector, whiteboard and OHP projector. A slide projector could have been made available if needed. The room was large and allowed concurrent small group teaching and with trolleys to facilitate scenario teaching on simulated patients (members of the group). Lighting and ventilation were most satisfactory. There was road noise from outside which sometimes impeded communication, but not severely so.

The group of delegates on the course is as listed above. All those who came to the first two days proceeded to the third day and completed instructor training. Having four faculty members allowed this to work well.

Programme – actual timings

Tuesday 20th January

0900 - 0915	Introduction	James
0915 – 0940	MCQ and Local trauma perspective	Rebecca/James
0940 – 1015	ABCDE of Trauma and Primary survey	James
1015 – 1045	Airway and Breathing	Rebecca
1045 – 1110	Break	
1110 – 1150	Circulation and Shock	Sarah
1150 - 1235	Demonstration Scenario	all
1235 - 1335	Lunch	
1335 - 1410	Chest injuries (needed longer to do well)	Sarah
1410 - 1500	Scenarios practice	all
1500- 1530	Secondary survey demonstration	Sarah /James
1530 - 1545	Break	
1545 - 1655	<i>Skill stations</i> Basic Airway Advanced Airway Surgical airway (see notes)	Sarah Shirani Rebecca
1655 - 1700	Overview and summary	James

Wednesday 21st January

0835 - 09 15	Head and Spinal injuries (overrun)	Shirani
09 15 – 0950	Abdominal and Limb injuries	Rebecca
0950 – 10 15	Paediatrics and Obstetrics	James
10 15 – 1030	Break	
1030 - 1100	Burns	Rebecca
	Group photograph	
11 00 - 1200	Skills (see notes) <i>Chest drain, pericardiocentesis etc</i> <i>Discussion</i> Neurological assessment	Rebecca Sarah / James
1200 – 1230	Disaster management, Difficult situations and transport (discussion group)	Rebecca / James / all
12 30 - 1330	Lunch	
1330 – 1415	Scenarios	all
	Multiple choice paper, Feedback and discussion	

Instructor course Thursday 23rd January

Morning taught by DCW and JdeC while SB and RJ ran BLS course

Session 1	Teaching how to teach	
09 00 – 09 05	Introduction	
09 05 – 0940	Introduction How adults learn Questioning	James

0940-1000	Feedback	Di
1005-1015	5 minute Break Language	
1015-1030	Morning Tea	
1030-1155	Different presentation styles	Di (see notes)
1200-1230	Practical session How to give a lecture	James/Di
1230-1330	Lunch	
1330-1530	Small group work: How to run a discussion group How to teach a skill How to run a patient scenario	Di/Sarah James Rebecca
	Afternoon Tea (brief)	
15 30 – 1550	Feedback on course (<i>Brainstorming</i>)	Di/all
Session 4 15 30 – 17 00	Where to go to from here? – plenary discussion-	James / Thayalan

Topics that were suggested for the course members for these sessions included
Lecture 1 – (blackboard or whiteboard) **Airway Management**
Lecture 2 – (blackboard or whiteboard) **Chest Trauma**
Lectures – presentation either of the beginning of the lecture or a small part of the topic.

Discussion 1 – **differences between children and adults**
Discussion 2 – **issues around pain management in trauma**

Skill 1 – **simple airway manoeuvres**
Skill 2 – **cervical spine stabilisation**

Scenario 1 and 2 – **scenarios**

These were all used as a means of exploring teaching techniques in the discussion rather than assessing the pure factual content of the presentation. The aim was for clear structure and technique points that promoted discussion!

Notes on delivery of the Course and lessons learnt

We had planned that Shirani Hapuarachchi would be able to bring up to Jaffna the slide and OHP sets that we had left in Colombo last year. Unfortunately this email seemed to have gone astray so this did not in the event happen: we had planned to make use of various different presentation media in order to model the methods that might be used in subsequent courses. We did, however, make use of OHP and whiteboard presentations for some of the talks, and unexpected power failures made ideal opportunities for modelling how to cope with such events and use alternative strategies!

We were fortunate in having the use of a large room so that concurrent skill and teaching sessions could be run, and in the good AV equipment.



Both we and the candidates queried whether it was appropriate for the MCQ to have a number of cardiac life support questions in it since this is not covered in the course. Some of the participants' evaluations commented that we should cover Cardiac Life Support in the course.

The timings of the skills teaching had to be changed at short notice since the co-ordinators had not been aware that Hindus could not slaughter a goat on Tuesdays: instead the station using a goat thorax for chest drains etc was swapped to the Wednesday. This worked well in rotation with the neurological assessment station, and fortunately Dr Hapuarachchi had been able to bring with her an intubation mannequin and cricothyroidotomy model from Colombo. With funding that had been raised for Trauma training in Jaffna some mannequins had been ordered (including intubation and pneumothorax trainers) but unfortunately these had not arrived in time for the course though they will be available for future ones.

Because RJ and SEB were involved in running the associated BLS course during the Thursday morning DCW and JdeC taught the background content part of the Instructor Course and then we conducted the Lecture practical session with the whole group, with two (primed) course members making short presentations with feedback before lunch. After lunch for the small group work the group members divided into three groups and were each allocated a skills, discussions and scenarios to teach during the small group workshops. They were encouraged to teach these according to the four stage Plan / environment / delivery / closure model, the skills being taught using the system of instructor full speed run-through, followed by instructor talk-through, student talk-through of instructor demonstration and student talk-through of student demonstration. These and other concepts had been introduced in DCW and JdeC's presentation during the morning.

The "different presentation styles" section of the Instructor course is rather long and in retrospect we felt that it would have been better to divide this and ideally do it split between the two instructors to maintain interest. Otherwise the Instructor day went well.

The course finished with a summary brainstorming session led by DCW, the results of which are appended, and then a plenary discussion introduced by JdeC and then handed over immediately to Dr Ambalavanar, in which options for the future of PTC in the Northern and Eastern Provinces were discussed. Options included:

- Running most of the courses centrally at Jaffna Teaching Hospital, but with some peripherally
- A rolling course in Jaffna with fixed time and scheduling.
- At least 3 courses a year.
- Keep course numbers at, or less than, 20.
- Dr Ambalavanar will suggest to the Medical Faculty that the PTC course should be taught to final year medical students in their surgical attachment
- Extension of the course to the Tamil Eastern Province areas.
- Aim for mutual exchange of instructors with Colombo

- Extension of the course to Nursing Staff, with modifications for them and paramedical workers.
- Felt that 2 day rather than one day would be better, especially for less qualified staff. This could be run at weekends to avoid disruption.
- There was discussion about whether observers could attend: it was felt that this would dilute the benefit to those attending, and that it would be better to run more courses.
- Need hospital administrative support and co-operation with the Jaffna Medical Association (who had been very supportive to the course).
- It was felt that instructors should be encouraged to teach different topics on courses.

In the immediate future a first course is planned, to be run by Dr Ambalavanar and Dr Preman Jeyaratnam, in March.

Evaluation of the success and relevance of the visit

The participants' assessment forms, the format of which is as below, were collated and the summed scores are shown:

KEY 0 – No Comment
1 – Disagree Totally
5 – Agree Totally

	0	1	2	3	4	5
Lecture content				1	5	11
Objectives achieved					3	14
Useful to your future practice						17
Relevant to your current practice					1	16
Too much information		14	1		2	
Scenarios helpful			1		1	15
Forum helpful			1		2	13
Too detailed information		15	1	1		
Facilities (Acceptable)	2		1	3	5	6

Comments on presentation style

Would help to include video presentation in Mx of casualties in a disaster

Very good and simple presentation. I got more knowledge.

Excellent – I never seen this kind of presentation

Very very excellent presentation

The presentation way is very good and helpful by making us participate actively and conducting scenarios, discussions and asking questions.

Good

Very good x 2

Presentation style is good but add some video to show some approach

Very good and acceptable/attractive x 2

Lectures are very good, attractive and valuable

Attractive manner of presentation

Excellent, informative, attractive

Easily understood but some pronunciation/language is difficult to understand x 3

We were impressed highly about the way the presentation done. It is very useful for our teaching purpose Scenarios exp is very helpful, which we didn't have any practice earlier.

Need more detail in lecture content

Comments on course content

Include CPR x 6

More disaster management x 3

More details on orthopaedics (fractures)

Include video

Excellent x 3

Satisfactory and helpful for future management of trauma patients x 2

Other comments

Instructors did the course very methodically and simply

Useful for young doctors. Repeated refreshment course needed

Come again!

Very much enjoyable. We found a new way of teaching than what we found earlier

We are thankful for organising this course which introduced not only PTC but also new ways of teaching any skills.

Very helpful to a country suffering with war

Is it possible to design a course for nursing officers to assist doctors and take care until doctors arrive.

Very very useful course for disaster, mass casualty management. We are very much thankful to you and your society for helping our peoples like 3rd world country by training us to perform a primary, secondary excellent care. Thank you.

Media coverage

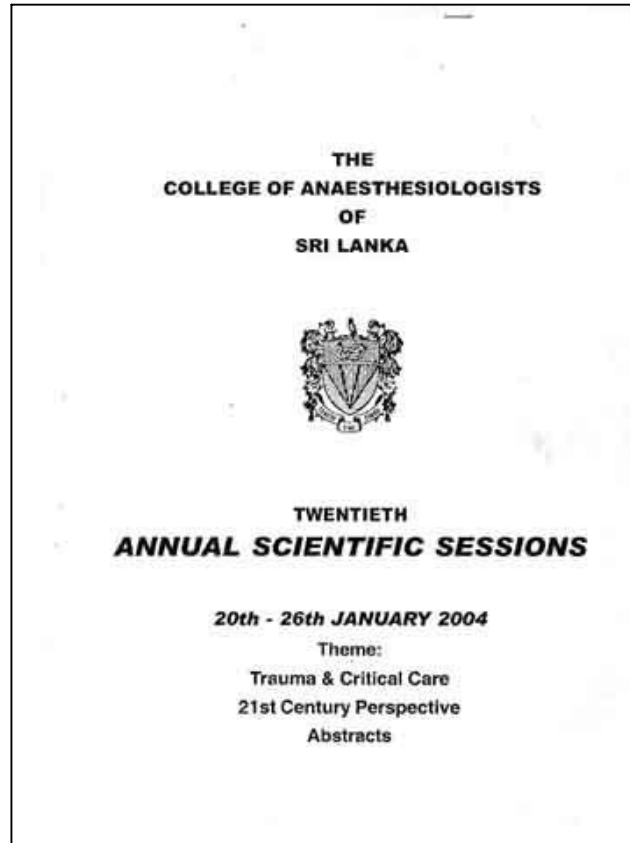
A copy of the programme for the Sessions, including the PTC course, was printed in the “Daily News”, a national paper. In addition a report on the course has been posted on the Tamil website www.sangam.org by Dr Ambalavanar.

Teaching materials provided

The instructors took out with them from the UK 60 copies of the PTC course manual. Further copies are to be duplicated locally: it is hoped that this will be supported by Industry sponsorship as has been the case in the rest of Sri Lanka: B Braun have been supportive of this. It had been planned that we would have use of the 35mm slides and OHP's that had been left in Colombo last year but unfortunately due to an email failure this message did not get through and so these materials were not available. These are however still available in Sri Lanka though in practice PowerPoint video projection is available and is likely to be used. In addition we took out around 100 trauma picture 35mm slides which were used as a resource for the course and electronic copies of these, and DW and JdeC had written a final draft Instructor slide set on Teaching the Teachers which was modified during the course and used in the Instructor course. At the end of the PTC course a CD of the electronic copies of the PTC materials was left with Dr Ambalavanar as local co-ordinator, with in addition a CD with the Instructor Manual, the trauma picture slides in PowerPoint format: a copy of the Instructor Day slides will be emailed to him when final editing is finished.

Dr Ambalavanar's team provided superb local organisation and there were no problems apart from occasional brief power cuts, which provided excellent opportunities to model suitable alternative teaching techniques!

Subsequent activities following the course



The PTC course was run prior to the Annual Scientific Sessions of the College of Anaesthesiologists of Sri Lanka and our team was involved in these, RJ and DCW attending, SB and JdeC speaking and DW being Chief Guest. DW made several presentations about PTC and “spread the word” extensively. It was useful that Dr Peter Simpson, President of the Royal College of Anaesthetists, was also present and was able to find out a lot about PTC and to see it in action and to hear what has happened over the past year.

Progress in PTC in Sri Lanka over the past year

The PTC course and Instructor course run in Colombo in January 2003 was very successful and is the subject of a previous report. At the PTC course a local organising committee was set up with representation for both Surgeons and Anaesthetists. This was largely based in Colombo for communication reasons but the course membership ensured representation from the different regions of the country. The group planned, and discussed extensively, to run courses in the various areas of the country and to extend the training out not just to health care workers but also to Policemen and other first responders for Trauma. Rebecca Jacob, in discussion at the 2003 course, pointed out the need to teach first responders and schoolchildren.

2003 was designated as a year of Trauma by the College of Anaesthesiologists of Sri Lanka, and PTC has played a major part in this and Dr Hapuarachchi and her colleagues are greatly to be congratulated for the extensive way in which the programme has been developed. A number of courses have been run in many parts of the country and well over 300 doctors have been trained in PTC – the locations of these courses are shown in red on the map. As well as the Jaffna course (yellow) a number of other locations are planned (green markers).



The courses have been largely run by Dr Hapuarachchi and her colleagues and each one has been jointly run with surgical colleagues. Dr Pradeep Fernando (Consultant Orthopaedic Surgeon) was instrumental in setting up the PTC course initially with Dr Hapuarachchi and he has since handed over responsibility for the organisation to Dr Ranjith Ellawella, Consultant Surgeon at the Police Hospital, Colombo.

A number of other developments have taken place in association with the PTC training. Colombo's Emergency services have become involved and as a result 30 Fire Service trainees have been made available to be trained as paramedics: this training is nearly complete. Previously there was no ambulance service except for private interhospital transfer of patients. Since last January four emergency ambulances have been commissioned for Colombo and a city-wide toll-free emergency number has been allocated. A central command centre at the Fire Brigade Headquarters has been established and this is to be linked to radios in the ambulances with a link to the National Hospital accident centre. Steering and Management Committees have been set up for this service. It is hoped that this can be extended elsewhere in the Island.

In addition Dr Hapuarachchi and the President of the College of Surgeons with involvement from the College of Medical Administrators have also begun to go out to peripheral hospitals and to arrange upgrading of their resuscitation rooms.

It was very evident from talking to those at the Sessions, and the presentations that were made there, that PTC has both driven change in, and entered deeply into the structure of, Trauma Management in Sri Lanka over the past year: it was obviously enormously encouraging for us to come back a year on and see this.

Acknowledgements

To quote from Dr Ambalavanar in his report:

“This course would not have been possible without the very active help of a few expat Tamils and organisations. Dr Preman Jeyaratnam (UK) was the one responsible for making the necessary contacts with the team members and also raising a significant amount of funds. He participated in the course and has expressed a willingness to return to help conduct the course in future, too. Funds were also donated by TRRO (California), SCOT(UK), MIOT(UK), the Birmingham Tamil Association(UK) and the Sydney Tamil Christian Fellowship(Australia). There were also

significant contributions from organisations in Colombo including Mediequipment Pte Ltd-Colombo, Ravi Thangiah, R & D Intertrades, Colombo and Vanika Medicals, Jaffna (for the dinner). The bulk of the money went towards the purchase of mannequins and teaching aids needed to conduct such a course and the rest towards travel and accommodation expenses.”

In addition we were very grateful to the WFSA for funding our flights to Colombo.

The initial approach to PTC was made by Dr Thayalan Ambalavanar and Dr Preman Jeyaratnam, who offered superb support throughout the preparation for and delivery of the course. The local organisation and arrangements in Jaffna were superb.

Matthew Fleggson at the Leonard Cheshire Centre for Conflict Resolution at UCL provided valuable advice, and Karen Arnold and Jo Smith at Marsh UK gave much-needed assistance in obtaining travel insurance for Jaffna despite FCO warnings.

My fellow instructors, Rebecca Jacob, Sarah Bakewell, Di Wilkinson and Shirani Hapuarachchi were an excellent team and without them the course could never have been as successful as it was.

Dr James de Courcy
Consultant in Anaesthesia and Pain Management,
Cheltenham, UK.
Course Director.

Appendix 1.

Results of Brainstorming session at end of course

What was good about the PTC Course and PTC Instructors Course?

Participants:

Well organised and fixed timetable
New idea of doing things
Presentations done in an attractive manner
Nobody has been allowed to sleep!
Steps for teaching a skill have been helpful
Doing scenarios
Structure for dealing with trauma
Make you participate
Practice PTC and learn how to teach (this is not available at the university)
How to manage the emergency time
Good manual
Course was simple and practical
Training in PTC and how to teach
Course designed to be interactive, and have become more free to be interactive with instructors
Encouragement to teach others
A new way of teaching
Stimulation to do this in the future
Good pace
All of the above!
Giving another approach to teaching which can be used in other situations

Instructors:

You – the group
The improvement
Local organisation – Thayalan
Discussion groups with everyone participating

What can we improve?

Participants:

Questions are not always understood (suggest asking questions in a more matter of fact way)
Manuals available before the course
More colour photos in presentations
Videos to demonstrate managing casualties and disasters
More models and mannikins (Thayalan pointed out that these are on order)
Lectures on video for future use
Scenario – could not understand what I was meant to do
Longer morning session and no afternoon session to fall asleep
Include 2-3 patients in one scenario – ie do a disaster scenario
Include CPR

Instructors:

You need very little to teach PTC – it is not essential to have mannikins, videos etc
Language issues both directions – but this should now not be an issue with taking PTC forward in Jaffna and surrounding areas
PTC posters?