# PRIMARY TRAUMA CARE FOUNDATION

**Report on 1st Regional South Asia Meeting**
**King Edward Medical University, Lahore, Pakistan**

**and meeting at Ministry of Health in Islamabad with Trustees of Primary Trauma Care Foundation of UK and Provincial Health Department and PTC Representatives**

**January 4 to 6th, 2006.**

**Note**

This report is compiled from notes made at the meetings by Dr James de Courcy, and information from the Powerpoint presentations made by participants at the meeting.

**Contents**

## Meeting at Ministry of Health with Trustees of Primary Trauma Care Foundation of UK and Provincial Health Department and PTC Representatives

Dr Douglas Wilkinson, Prof John Beavis, Sir Terence English and Dr James de Courcy traveled to Islamabad, and attended a meeting at the Ministry of Health, Islamabad, together with representatives of the PTC Faculty from the various provinces of Pakistan, with representatives of the Ministry of Health. Official Minutes from the Ministry are to follow.

**Notes from meeting** – transcribed from notes made by JdeC

After welcoming comments from the Chair, there were presentations from Douglas Wilkinson on the history and background of PTC, and from James de Courcy on the PTC programme worldwide.

Greatest successes where PTC has been incorporated into undergraduate teaching.

**Sindh**

Teaching institutes
Districts
First responder training

Extended from original courses in Karachi. Now 8 centres in Karachi. to Lahore May 2005, Quetta July 05, Gilgit/Chitral July 06. Hyderabad Aug 05/Jun. Mbasi Shaheed Hospital – doing courses in their own catchment areas.

In the districts the staff feel isolated. The courses there have incorporated a disaster training session to allow them to make up their own disaster plan.

First responder: highway and motorway police, Nurses and paramedics.

**NWFP (Samad Khan)**

Nine or ten courses. Active group of instructors. Courses taught allowing modification of language and according to the local needs.

**Punjab** – the Assistant Secretary commented that great potential is seen for PTC: a dedicated rescue and ambulance service, 1122, has been set up in Lahore and is being extended to ten other cities. In addition there is a program for Strengthening of Emergency Medical Services (SEMS) which has allowed increased turnover of emergency cases. They want to look closely at PTC to see how this could work with what is being done.

**Quetta** – a further course was to be done soon. Currently all the instructors are from Quetta. This represents a problem since there are 28 districts, some of which are 300-400 miles away. The first workshop in January had 2-3 districts grouped together and representatives trained. They will need more instructor training. The target is for every doctor to be trained by 2008.

**Military** – Following the attendance of military representatives at the first PTC course in Peshawar in 2004 a first course was held in Rawalpindi. Since then thee have been regular courses in Rawalpindi and 5 courses elsewhere. PTC has also been extended into final year medical student teaching. The feedback has been that the skill of these students

in Trauma resuscitation has been markedly higher. Pre- and post-test performance has been markedly improved. The army see the simplicity and low cost of pTC as advantages. However, there have been problems in that the instructors may deviate from the central message, especially senior faculty.

Brigadier Sultan commented that there have been regular courses at the Armed Forces College, with 22 courses to 2006 – 21 for doctors, and 3 day courses for undergraduates. This year they are planning to extend training to nurses, and to all peripheral hospitals and paramedics.

The **WHO Representative** Commented that Trauma has been identified as one of the most important problems, and will go from 29th to 3rd in their priority list. He sees training as one of the critical elements in the whole process. He feels that there is a need to institutionalise all this with:

- A requirement that all working in trauma must be trained
- Requirement for 2-3 day undergraduate training
- Incorporation into CPSP training
- Importance of refreshment over time, perhaps with a half day refresher course to recapture and consolidate training.

Following the earthquake there was training of about 500 immediate responders in prehospital care. This was skewed to maternal and child health but there is a need to bring trauma into this as well.

There is also a need to look at road traffic injury control and prevention.

The **Secretary of Health** *[I would be grateful if Prof Jooma could correct this title if necessary and insert her name, of which I do not have a record]* made a request to the provinces to take on PTC training, commenting that "everyone should be prepared with it". She agreed with Dr Bilay, the WHO representative, that PTC should be in the undergraduate courses.

**Dr Alamzeb Durrani**, from NWFP, made points arising from the earthquake and FATA experiences that if learners do not have a certain basic knowledge this can make teaching difficult, and queried whether if we are training non-medics we need to have a separate course at an appropriate level.

He also stressed that currently instructors are having to take time out of their annual leave entitlement to teach on PTC course and asked if this time could be recognized as part of their duties.

**Dr Douglas Wilkinson** responded to the above comment saying that Paramedic training can be done at an appropriate level within the flexibility of PTC, if necessary with a different certification structure. He went on to comment that PTC has been endorsed by the Royal Colleges of Anaesthetists and Surgeons, by the Association of Anaesthetists of Great Britain and Ireland and by other bodies. Endorsement by the Pakistan Ministry of Health would be valuable, and could be supported by the establishment of a committee to set standards.

**The Secretary of Health** said that this could be within the role of the Emergency Preparedness and Response Centre Organisation. She felt that PTC should be made

official, through the Provinces, and have a cell in the EPRC. In response to a comment from the Quetta representative that there will be local variations she felt that there should be central monitoring from the Ministry.

**The Minister of Health**, in the Chair, stressed the importance of this meeting and its content. There is a clear need for services and training. PTC training could be one of the components of this. He suggested the formation of a national committee or task force. He will also recommend that annual leave should not be debited for instructors teaching on PTC course.

**The WHO Representative** suggested that each Province's committee should have representation from the Director General of Health and the Chairman fo the PTC chapter. He stressed the need for central overall coordination, and again stressed the importance fo prevention. He offered WHO collaboration, and offered seed money for the next tow years to support the programme.

**Following the meeting Prof Rashid Jooma sent the following summary email to Dr Nadeem at the Ministry of Health**

*Email from Prof Jooma to Dr Nadeem at the MoH:*

January 8, 2007

Dr. Nadeem,

As promised, below are my notes of the points arising from the Primary Trauma Care (PTC) meeting on the 4th January at Ministry of Health.

1. The Federal Ministry of Health would be willing to endorse the Primary Trauma Course as the officially sanctioned trauma training module for all trauma receiving physicians in the country.
2. The Ministry would recommend to the Pakistan Medical & Dental Council that trauma training, in the manner of a Primary Trauma Care Course, be introduced into the curriculum of MBBS at final year level.
3. The Ministry of Health would recommend to the College of Physicians & Surgeons and the Universities offering medical postgraduate qualifications that candidates in the surgical disciplines be required to complete the two- day Primary Trauma Care provider course.
4. For the purposes of PTC courses in Pakistan, the Primary Trauma Care manual which is copyrighted by the Trauma Care Foundation of U.K. would be issued with the Federal Ministry of Health logo along with that of PTC.
5. The Primary Foundation U. K. would collaborate with the Federal Ministry of Health in providing teaching materials and other technical support to conduct PTC courses in Pakistan. They would setup mechanisms to monitor and ensure quality of the courses conducted across Pakistan. A memorandum of standing would be developed to guide this collaboration.
6. The Primary Trauma Care program in the four provinces would be incorporated as a training component within the Emergency Preparedness and Response scheme being presently developed by the provincial Governments. It was suggested that a Committee be set up in each province composed of the Director General of Health, the Additional Secretary Health (Planning and Development) and the provincial Chapter-Head of Primary Trauma Care. This Committee would develop the program for province-wide PTC courses in the Teaching and DHQ Hospitals with appropriate funding.
7. The WHO representative offered to consider support for a nation wide scheme of Primary Trauma Care courses in the next JPRM to be finalized this August.

After the meeting closed, a number of the participants traveled on to Lahore for the First Regional South Asia meeting of PTC at the King Edward Medical University in Lahore.

**Primary Trauma Care: 1st Regional South Asia Meeting.**
**King Edward Medical University, Lahore, Pakistan**
**January 4 to 6th, 2006**

## Executive Summary


- A meeting of representatives of PTC from the South Asian region along with trustees of Primary Trauma Care Foundation UK was held at KEMU, Lahore
- The background organisation for this course was conducted by the Sind PTC group while the local host was Prof Syed Mohammad Awais.
- The inaugural ceremony and dinner were held in the KEMU library hall and the Punjab Minister of Health was the Chief Guest. This provided an opportunity to bring awareness of the work and principles of PTC to a larger audience.
- The plenary sessions and the recommendations of the break-out groups provided valuable insights into the dissemination of PTC in the South Asian Region and the experiences generated there from.
- Chairman PTC in his summing up made suggestions for the reorganisation of PTC in Pakistan and recommended that this be the template for the structuring of PTC in the other South Asian countries.
- It was proposed that the next regional meeting be held in Sri Lanka in a year.


## Background

Primary Trauma Care has found fertile ground in the South Asian region. In Pakistan within a span of 2 years Chapters have been established in each Province and in India a well established chapter in Vellore has been complemented by a robust group in Delhi which has a regular series of Courses to its credit.

Following the success of a regional meeting in South America and at the urging of the Delhi and the Sind Chapters, the Trustees of the Primary Trauma Care Foundation UK announced a regional meeting in Lahore.

The purpose of the meeting was to take stock of the progress of PTC in the South Asian region and to allow instructors to share experiences and reinforce each other's efforts to spread PTC.

**Participants at the meeting**

**OVERSEAS FACULTY**

| | | | |
|---|---|---|---|
| 1. | Prof. P. Beavis | U. K | Prof of Orthopaedics & Trustee PTC UK |
| 2. | Sir Terence English | U. K | Patron of PTC. |
| 3. | Prof. James de Courcy | U. K | Anaesthetist & Trustee PTC UK |
| 4. | Prof. Douglas Wilkinson | U. K | Anaesthetist & Chairman of PTC U.K |
| 5. | Dr. Rebecca Jacob | India | Anaesthetist & Chair of PTC India |
| 6. | Dr. Rajesh Gongal | Nepal | Chairman, PTC Nepal |
| 7. | Dr. Rajedra Prasad | India | Chairman, PTC New Delhi |
| 8. | Dr. Tarun Sahni | India | General Surgeon, New Delhi |
| 9. | Dr. Ranjith Ellawala | Sri Lanka | General Surgeon & Chair of PTC Srilanka |
| 10. | Dr. Hapuarachchi Shirani | Sri Lanka | Anaesthetist & Founder PTC Sri Lanka |

**NATIONAL FACULTY**

| | | |
|---|---|---|
| 1. | Dr. Shams Nadeem Alam | General Surgeon, Karachi |
| 2. | Dr. M. Arif Khan | General Surgeon, Peshawar |
| 3. | Dr. Sabina Shibli | Anaesthetist, Karachi |
| 4. | Mr. Naveed Shinwari | PTC volunteer Peshawar |
| 5. | Mr. Tahir Ali | PTC volunteer Peshawar |
| 6. | Dr. Abdul Rashid Panjwani | Anaesthetist, Karachi |
| 7. | Dr. Saeed Minhas | Orthopaedic Surgeon, JPMC, Karachi |
| 8. | Dr. Shariq Ali | Plastic Surgeon, DUHS, Karachi |
| 9. | Dr. Rashid Jooma | Neurosurgeon, JPMC, Karachi |
| 10. | Dr. Nurul Haq | Anaesthetist, ASH & KM&DC, Karachi |
| 11. | Dr. Bushra Shirazi | General Surgeon,Ziauddin Hospital, Karachi |
| 12. | Dr. Khalil Shibli | Anaesthetist, Ziauddin Hospital, Karachi |
| 13. | Prof. Awais Syed Muhammad | Orthopaedic Surgeon, KEMU, Lahore |
| 14. | Prof Arshad Cheema | Orthopaedic Surgeon, KEMU, Lahore |
| 15. | Dr. Abul Fazl | Gen Surgeon, Allama Iqbal Univ. Lahore |
| 16. | Dr. Mohammad Aziz Wazir | Peshawer |
| 17. | Dr. Alamzeb Durrani | Orthopaedic Surgeon, Peshawar |
| 18. | Dr. Mahmud Aurangzeb | General Surgeon, Peshawar |
| 19. | Dr. Ghulam Haider | Medical Officer, AKHSP, Gilgit. |
| 20. | Dr. Nisar Hussain | Medical Officer, AKHSP, Gilgit. |
| 21. | Dr. Mohammad Imran | Medical Officer, AKHSP, Gilgit. |
| 22. | Prof. Arbab Rasool | General Surgeon & Chairman, PTC, Quetta |
| 23. | Prof Haji Manzoor | Plastic Surgeon, Quetta |

**Programme for the Meeting**

**Thursday 4th January 2007**

**INAGURATION AT KEMC AUDITORIUM**

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| Assembly | 7:00 PM |
| Welcome address | Prof Awais |
| History of PTC | Dr. Douglas Wilkinson, Chairman PTC Foundation |
| PTC in India and Pakistan | Prof John Beavis |
| Speech by Chief Guest | |

**Dinner**

**FRIDAY 5th JANUARY**
**SESSION I**

9:00 AM to 10:30 AM — **Reports from Regional Chapters** (10 mins each)
Delhi (Tarun Sahni), Vellore (Rebecca Jacobs),
Sri Lanka (Ranjit Ellawala), Nepal(Rajesh Gongal)
Peshawer (Arif Khan), Quetta (Arbab Rasool)
Karachi (Rashid Jooma), Lahore (Arshad Cheema)

10:30 AM to 10:45 AM — Tea/Coffee

**SESSION II**

10:45 AM to 1:00 PM — **Developing PTC for First Responders**
(Moderator : Dr James Decourcy)

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|---|---|
| Rescue 1122 in Lahore | Dr. M. Usman |
| Punjab experience | Prof Arshad Cheema |
| Sind experience | Dr Saeed Minhas |

Open discussion
Consensus & Recommendations

1:00 PM to 2:00 PM — Lunch/Prayer Break

**SESSION III**

2:00 PM to 5:00 PM — **Review of the PTC Provider Course**
Break out groups followed by Plenary
**Group Leaders**:
Rashid Punjwani (Airway & Breathing)
Khalid Shibli (Circulation & Shock)
Shams Alam (Chest Injuries)
Ranjit Ellawala (Abdominal trauma)
Saeed Minhas (Limb trauma)
Rajendra Prasad (Head and spinal trauma)
Bushra Shirazi (Paediatrics & Obstetrics)
Shariq Ali (Burns)
Junaid Razzak (Disaster Management)

**SATURDAY 6th JANUARY 2006**

**SESSION 1V**

9:00 AM to 12:PM **Plenary Talks**

1. The District Hospital as focal point for PTC – the Sind Experience: Prof R. Jooma
2. The Challenge of Sustainability of PTC Courses: Perspective from Delhi & Vellore : Dr. R. Prasad & Dr. R. Jacobs.
3. The Role of PTC in Disaster Preparedness By: Dr Shariq Ali
4. Role of PTC in enhancing road safety : Dr. Junaid Razzak
5. Audit to evaluate the impact of PTC: Dr. James DeCourcy
6. Summation and the way forward: Dr. Douglas Wilkinson

**SESSION V**

12:00 to 1:00 PM **Closing Ceremony.**
Certificates / Souvenirs.
LUNCH

## First Session – Regional Chapter Reports

At the first session of the PTC Regional Meeting, the various chapters of the region presented their experiences and reported on their activities. The enthusiasm of all chapters was evident and much appreciated. During discussion it was felt that:

- PTC should be introduced at undergraduate level and medical students encouraged to participate.
- As PTC moves forward in the region, quality assurance issues need to be addressed and acceptable standards enforced
- Certification on completion of the provider course should be contingent on achieving a pass grade in the post-course MCQ Test.
- PTC Courses should be arranged in concert with professional society meetings.

## Regional Chapter Reports

### Pakistan

### North West Frontier Province

Prof Arif Khan

NWFP was the first place where PTC was introduced to Pakistan. This was through the drive of the Late Professor Kabir, Professor John Beavis and Sir Terence English and was supported by the IDEALS charity. The Foundation course was held in March 2004 as a 2 day / 1 day instructor course at Kabir Medical College, Gandhara University, and then three subsequent courses run by the Foundation Faculty with support from the visiting instructor team. 4-5 instructors attended the Foundation course from each of the teaching hospitals. A co-ordinating centre was set up using facilities provided by Gandhara University. This keeps a record of all the PTC courses and their finances, and issues certificates to all course participants.

Subsequent to this Foundation course invitations were received from the Military in Rawalpindi and from Sindh Province to run further PTC courses.

There are faculty at all four of the Teaching Hospitals in Peshawar. Subsequently there have been 14 courses at these centres. Faculty members have also been involved in conducting PTC courses in Dhaka, Karachi and Rawalpindi.

Experience from NWFP:

- Enthusiasm and interest level – it does not take more than two weeks after notification of a course for the twenty available slots to be filled.
- Few questions at the end of the course
- More interest in the scenario session, although the experience has been that some senior doctors try to avoid the scenario practice.
- Keeping a careful attendance register - there is consistent attendance: registers are taken twice a day and certificates only given to those who attend the whole course
- Good attendance from orthopaedic and general surgery and anaesthesia, less from physicians.
- Feedback from the participants has demonstrated that the course is useful. More pictures and movies suggested, particularly of the skills. The lecture content is

felt to be relevant. Scenario practice is valued and participants have suggested that this should be given more time.

- Recently the Faculty have delivered the course to final year undergraduates at Khyber Medical College. This has met with great enthusiasm, with many questions being asked at the end of the lectures, and enthusiasm for the skill and scenario teaching sessions. Male and female students showed the same level of interest in the scenario practice. The students unanimously agree that the course should be part of their curriculum.
- Extending PTC out into the FATA areas later this year, and there are plans to introduce a modified course for paramedics.

**PTC in Sind.**

Prof Rashid Jooma

Pakistan, like most countries of the world is experiencing an epidemic of trauma. Being a low-income country, specifically designed Primary Trauma Care Courses are very beneficial in our set up because of the following peculiar circumstances we face. These include:

- the great distances over which casualties may have to be transported to reach a medical facility
- the time taken for patients to reach medical care
- the deficiency of high-tech equipment and supplies
- The deficiency of skilled people to operate and provide service.

Primary Trauma Care (PTC) Sind is a non-governmental volunteer organization established in November 2004 in Karachi with the help of a group of able and enthusiastic and trauma trained volunteer consultants from various institutions of Pakistan. Faculty from various institutions are working together in this.

PTC is a system for training front-line staff in hospital trauma management, aimed at preventing death and disability in seriously injured patients. These courses are designed to empower local surgeons and anaesthetists in injury prevention strategies, as well as in the management of severe trauma at the district hospital level. Since its inception in March 2005, the following courses and awareness sessions have been successfully organized and run by PTC in various institutions of Pakistan during the past two years.

- PTC Instructors Course at *SIUT, Karachi* for 35 participants
- PTC Awareness *Health Asia Conference, PC Karachi* for 55 participants
- PTC Awareness *Peoples Medical College, Nawabshah* for 70 participants
- PTC Provider Course in *Abbasi Shaheed Hospital, Karachi* for 24 participants
- PTC Awareness in *Bismillah Taqi Ins. of Health Sciences* for 50 participants
- PTC Instructors & Providers Course and formation of PTC Punjab group at *King Edward Medical College and Mayo Hospital, Lahore* for 25 participants

- PTC Instructors Course at *PNS Shifa, Karachi* for 20 participants.
- PTC Instructors & Providers Course and formation of PTC Balochistan group at *PGMI, Sandeman Hospital, Quetta* for 25 participants
- PTC Provider Course at *Liaquat Medical University of Health Sciences, Jamshoro*. For 28 participants
- PTC three days Instructors Course in *Apollo Hospital, Delhi, India* and establishment of PTC Foundation India for 25 participants.
- PTC three days Instructors *Course for ASH, LUMHS and DUHS doctors in Center for Skills Development, DUHS Karachi* for 35 participants
- PTC two day *Provider Course in DUHS, Karachi* for 25 participants.
- PTC two days provider course in the *Department of Anaesthesiology and Critical Care, Civil Hospital, Karachi* for 25 participants.
- PTC two day provider course in *Gotkhi District Hospital at Mirpur Mathtelo* on 7th and 8th January, 2006.
- PTC two day provider course in *Liaquat National Hospital, Karachi* on 4th and 5th March, 2006.
- PTC two day provider course in *Jinnah Postgraduate Medical Centre, Karachi* on 11th and 12th March, 2006.
- PTC two day provider course in *Jacobabad Civil Hosptial, Jacobabad* on 18th and 19th March, 2006.
- PTC two day provider course *in Mirpur Khas Civil Hospital, Mirpur Khas on 22nd and 23rd April, 2006.*
- PTC one day instructor course at *Liaquat Medical University of Health Sciences, Jamshoro* for 28 participants on June 18th, 2006
- PTC three day provider and instructor courses at Gilgit AKHSN , July 6,7 and 8th, 2006
- Pre Hospital first responder course at *Highway and Motorway Police Trainng Academy, Shikupura,* for 50 participants on July 28 & 29th, 2006
- PTC Awareness Course, *Thatta District HQ Hospital* on November 4th, 2006
- PTC two day provider Course, *Abbasi Shaheed Hospital, Karachi*, November 14th & 15th, 2006
- PTC two day provider course, *Sanghar Civil Hospital, Sanghar* for 24 participants on November 25th & 26th, 2006

**Future Plans**

PTC Sind is fully committed to these efforts during the year 2007 and beyond and envisages continuing the cycle of courses in the Districts of Sindh. We have plans to create an appropriately modified course for non-physician, first responders such as police, rangers and ambulance drivers. Discussions have been held with the Sindh Highway Police and we have trained 2 of the physicians in their force to serve as instructors in the **First Responder PTC Course** that will commence in the near future with their officers.

Looking to develop a PTC educational centre

Disaster management – develop hospital emergency plans

It is important to note that all the above mentioned courses were organized and run by PTC Sindh at a **zero cost** to the participants. Ongoing activities of this sort and magnitude are only possible with the help of ongoing support and funding for these activities.

**Punjab - Lahore**

Professor Muhammad Arshad Cheema described the course that he introduced in 2001 and which has been taught regularly in Lahore, with 747 doctors trained in 14 trauma courses and workshops at KEMC. In introduction he showed that 50% of the deaths in his institution were from Trauma. In 2004 Professor Beavis and a team from Sindh came to Lahore to teach the PTC course.

Lahore are able to access and use fresh cadavers for the skills teaching.

Funding has been an issue: there has been no government contribution.

Dr Usman has taken over as Assistant Director of the Emergency Services Academy and has been instrumental in delivery of Trauma training to a large number of learners, and setting up the 1122 Rescue Service.

There was further discussion about funding – this is a common issue since PTC faculty are teaching as volunteers, and often have to take leave from their holiday entitlement to teach. It was encouraging to hear that the Minister for Health had stated during the meeting in Islamabad that it would be appropriate for them to be granted special leave to teach PTC courses. Prospect of WHO seed money had been mentioned at the meeting, as well as patronage from the Government which will be helpful. So far in Pakistan there is no charge for courses: the way the course tends to be run is that the local health establishment is asked to select 20 candidates.

Medical school training: NWFP and elsewhere have had good success with teaching to medical students.

**Quetta**

Dr Arbab Rasool

Initial course in Quetta by Sindh faculty. Local faculty established. Large area with widely separated centres. Further course to be run in Quetta shortly.

Introduction of PTC training for Medical students.

House Officers: PTC now mandatory for certification.

**Delhi**

The first PTC course in Delhi was run from 16th to 18th September 2005 at the Apollo Hospital, with a visiting faculty made up of members of the Sindh PTC faculty and the UK. The presentation was made by Dr Raj Prasad on behalf of the Delhi faculty.

As background detail, it was pointed out that Mortality and Morbidity in India due to trauma has dramatically increased: from 1971 to 1996 total road length has increased by 168.6% and vehicle numbers have increased by 1711.5%. In 1991, 60,000 people were killed in RTA's as against 24,600 in 1980. Morbidity has increased by about 150%.
In India 1 out of 6 trauma victim dies, while in the USA this figure is 1 out of 200. Over 80% of the world's total RTA mortality and morbidity rates is in the developing nations: India alone accounts for 10% of this.

Of all lives lost in India due to road accidents, it is estimated that 1/3rd could be saved if timely quality emergency were available.

In Delhi the vehicular density is higher than that of the three metros put together. This has contributed to the rising trend of RTA's in the city.

In Delhi about 2000 lives are lost every year due to RTA's alone. Pedestrians are the most vulnerable group (48.6%) followed by cyclists (24.4%) and motorcyclists (24.2%).

Emergency service provision is limited: according to an epidemiological study conducted in Delhi, 92.8% of RTA victims get treatment only after six hours from the time of the accident. Centralised Ambulance and Trauma Services (CATS) has around 21 ambulances in different locations of Delhi which are used by RTA victims only in 30.56% of the cases, while around 19.72% avail of the services just to return home after being discharged from the hospital.

There is a need for a minimum of 350 standardized accident and trauma ambulances : there are just 200 ambulances in Delhi at present.

In Delhi so far 4 PTC courses have been run, and at the time of the conference there were 80 Providers & 44 Instructors . A 5th PTC course was due to be run in January 2007, and a 6th course in Bangalore in February 2007. The distinctive feature of the course is that 38% of the time is spent on didactic sessions and 62% of the time on hands on workshops and simulated trauma scenarios.

The course programme follows the normal two day arrangement, the written programme given to the participants also giving a rationale, learning objectives and introduction for each session. The MCQ is marked but does not carry the name of the participant, and is used to give a feedback on the quality of training given by the instructors.

**Areas to look at:**

- Course content
- Translation into local language
- Course for paramedics and nurses
- Funding for the courses
- Enhance collaboration between ourselves and PTC(UK) to get the help we need from agencies like WHO, British High Commission, etc.

**Vellore**

Professor Rebecca Jacob

PTC was first introduced to India in Vellore in 1998. A 3 day workshop was held and 5 surgeons and 5 anaesthetists were trained as instructors. Of these original instructors eight have continued actively. A one day workshop was held at the South Asian Confederation of Anaesthetists in Chennai in 1998.

Subsequently a few three day meetings were held, though there were difficulties in running these, with problems getting leave and conflicts with other courses and meetings. There were also difficulties with skill mix in the groups and with language. Many trainers ae good at didactic lectures but less keen on running scenarios. Instructor fatigue with repeated workshops.

In view of these issues the group in Vellore has concentrated on prevention of injury and training of first responders in schools, the police, bus and ambulance drivers and a one day course introduced into the curriculum for third year medical students, repeated for final year students at the start of their internship.

Trauma Care has also been "piggy backed" onto other large meetings such as the Asian Society of Paediatric Anaesthesia.

**Sri Lanka**

Dr Ranjith Ellawalla

Sri Lanka has a considerable exposure to Trauma, and is ranked consistently as the highest cause of admission to hospitals since 1991. 11% of hospital deaths there are due to trauma. During the past 24 years there has also been massive trauma resulting from the war zone and elsewhere, but also road, train and other injuries are frequent.

In the Island thee are 124 consultant surgeons, 80 consultant anaesthesiologists, as well as 8683 Medical Officers and 203,332 nurses. There is a network of 18 general and other hospitals, and further smaller hospitals, Rural Hospitals and Peripheral Units.

The first PTC course was run in Colombo in January 2003 , with an instructor course training twenty senior surgeons and anaesthetists, and a subsequent course was run in Jaffna the next year with.

Since then courses have been run in 25 centres, with 25 participants per course
5 centres teaching, with regular programs in Colombo, Colombo North Teaching Hospital, Kandy and Galle. In all over 1300 doctors have now been trained. In Colombo, Galle and Colombo North Medical School separate workshops are being carried out for nurses.

Subsequently PTC has been extended out into EMT training: 30 trainees from the Fire Service have been trained in PTC principles and have allowed the foundation of an Emergency First Responder ambulance service in Colombo, which is planned to be extended out to other centres in the country.

A recent survey of all past participants in PTC has allowed feedback: in response to one question all trainees had used PTC to save at least one victim.

**Future plans include**

- Trauma system development pilot project
- Extension into the undergraduate curriculum, to train all doctors before they start their internship.

## Nepal

Dr Rajesh Gongal

PTC first began in Nepal under auspices of Dr Charlie Collins, an Anaesthetist from the UK: a PTC course and instructor course were run in Nepal in April 2003 with the involvement of Dr Bruce Lister from Australia.

Since then there have been 5 courses a year in Katmandu and one out of the city, and a second instructor course was run in May 2004. Overall there have been 27 PTC courses with four instructor courses, and 500 doctors, plus 58 paramedics and nurses, have been trained. 10 PTC courses have been held outside Kathmandu, and there is one regional centre which can run PTC courses independently.

PTC in Nepal is in the process of registering as a non-profit making NGO, with an executive committee. Instructors are voluntary and unpaid, and this has introduced problems of sustainability. A charge of Rs 500 (£3.50) is made for the course, which covers tea and snacks, and a small amount saved from each course supports the running of a course outside Kathmandu once a year. A decision not to accept pharmaceutical sponsorship has been taken.

**Future plans include**

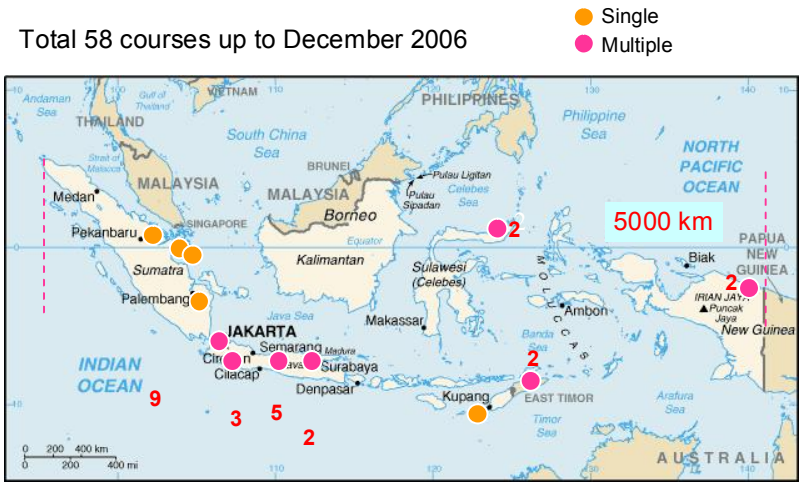
- Development of more regional centres, at Pokhara, Tansen, Hetauda and Dharan Bazaar
- To work with other stakeholders to develop emergency medical services

## Indonesia

Unfortunately no representative from Indonesia could be present at the meeting, but Dr Edy Rahardjo had sent a presentation which was delivered by Dr Douglas Wilkinson.

Indonesia is the largest single tropical country extending 5000 km on equator - a ninth of the world's circumference/ Its population is 220 million (annual growth 2.5%), with a per capita income of USD 1000. There are 200,000 MDs and 400,000 nurses, with 1700 hospitals of more than 200 beds.

PTC was introduced in Jakarta in March 2001, and since then there have been 58 courses to date, including ones held with international participants in the 13th Asian Conference in October 2003 in Surabaya, and there have also been courses in the international area at Dili in East Timor in 2003 and 2004. The total participation has been 1485 doctors and 152 nurses.




There are difficulties in running courses throughout Indonesia: there are 13,000 inhabited islands, many separated by open seas, and land transportation involves long and difficult journeys.

Experience in running PTC courses in Indonesia has led to some changes in teaching style: Dr Rahardjo comments that Indonesians are shy and reserved and do not readily participate in skills and other teaching: for this reason visualization and manikin practice play very important roles. The Indonesian PTC faculty have made a number of modifications to the course, to improve understanding, skill acquisition and courage to apply the skills and knowledge subsequently, and to enhance pride for successfully completing the course.

They have introduced more pictures in the lecture slides using LCD projectors and Power Point slides - now, of 407 slides, 290 incorporate images. They make extensive use of manikins, skill stations with hands-on tricks and scenarios. Participants are provided with a workbook with Power Point hand-out and a Handbook for some basic procedures they can refer to at later date.

**Future developments:**

- More participants (400+) are queuing for coming PTC courses
- RACS will support 2 more courses in West Timor due April 2007
- More Government bodies are considering PTC.
- In first semester 2007, 100 doctors and nurses from east Java province will go for training
- The Airlangga University Medical Faculty has recommended PTC for final year medical students (200 participants per year)

## DISCUSSION ON TRAINING FOR FIRST RESPONDERS

Experiences with training of pre-hospital care providers were presented from three centres – Sindh, Punjab and Sri Lanka. Subsequent to this further discussion about First Responder training ensued.

**PTC for First Responders in Sindh** – Dr Saeed Minhas

Trauma is worldwide the greatest cause of death 1-44 years of age. This is no less true in Pakistan: figures being:

| Province | Accidents | Deaths | Injured |
|---|---|---|---|
| Punjab | 4771 | 2884 | 6159 |
| Sindh | 1798 | 1083 | 1463 |
| NWFP | 2402 | 708 | 2662 |
| Baluchistan | 406 | 138 | 359 |

In Karachi there are over 1.6 million vehicles. In Karachi in 2006, 2184 were injured and 1222 died in RTA's: the majority of victims were of 15-44 years of age.

Most deaths in the first hour after injury are the result of Airway Compromise, Respiratory failure or uncontrolled hemorrhage, all three of these being conditions that can be readily treated using basic first aid measures. There is good evidence that Pre-Hospital Trauma training has potential to reduce case fatality.

For First Responders there are simple "golden principles" that can be effective

1. Ensure the safety of the pre-hospital care providers & the patients.
2. Assess the scene situation to determine the need for additional resources.
3. Recognize the Kinematics that produced the injury.
4. Provide airway management & cervical spine stabilization.
5. Support Ventilation & deliver Oxygen.
6. Control External Haemorrhage.
7. Provide basic Shock therapy.
8. Splinting limb injuries.
9. Spinal immobilization and Backboard.
10. Safe Transport.
11. Warm I/V fluids En Route.
12. Medical history & Secondary Survey.
13. Above all, Do No Further Harm.

In addition, the above principles are important in the prevention of secondary injury.

50-80% of trauma deaths occur before arrival at hospital. (Wyatt 1995)

A First Responder training programme is being set up in the National Highways and Motorway Police Training Institute. The aims of this training include:

- First responders are taught to recognize an emergency & call for help and provide treatment.
- Enhancing & increasing Knowledge & skills related to trauma care.
- To decrease Preventable mortality & morbidity.
- To provide a description of Physiology/ Path physiology & Kinetics of injury.
- Rapid assessment & judgment skill.

Components of Pre Hospital Trauma course

- Scene management.
- Extrication. "Jaws of Life"
- Moving Casualties.
- Primary Survey "ABCDE".
- Splinting.
- Triage.
- Transport.
- Communication.

As part of this training for Motorway Officers a modified PTC course has been adopted, with lectures, skill stations including extrication from vehicles, spinal immobilization and helmet removal In addition situation based and regional scenarios are used.

Feed back by First Responders has been positive. It is felt that PTC for first responders fulfils a useful role in providing a bridge between pre hospital & hospital. The transfer of trauma victims is also an important area for work.

**Emergency Services Reforms in Punjab – Rescue 1122**

Dr Usman presented the outcomes of the work done in Lahore in setting up a First Responder emergency rescue service.

***The current situation***

The pre-hospital emergency management of accidents, emergencies and disasters has been long neglected in Pakistan – this is evident from the fact that in any emergency there is only a 5% chance of the victims getting an ambulance for transportation, let alone any timely emergency care by trained professionals. Pre-hospital Emergency Services like Fire, Rescue and Ambulance Services are virtually non-existent. Calling for help, coordination and management are poorly organised. This has driven efforts to develop an emergency service. Dr Usman proceeded to describe what has been done in Lahore.

In a disaster or emergency the first responders are the emergency services and the community, and functions are Search & Rescue, Emergency Medical Assistance, Need Assessment Survey and Relief Assistance.

Arising out of these needs the Government of Punjab has "established the first trained Emergency Service in Pakistan according to international standards" in setting up the Rescue 1122 service. This is a pilot project from Lahore with 6 Stations, 200 Rescuers working in three shifts, 14 emergency ambulances and 2 rescue vehicles designed indigenously. This service was established in a period of six months, including acquisition of land & construction of base stations, recruitment of appropriate staff, curriculum development, training in Teaching Hospital emergency departments,

HAZMAT training by Americans, procurement of 1122 universal Toll Free Emergency Number and an effective wireless Communication System. The ambulances are fully equipped according to international standards.

The service was started in October 2004.

The stations are located spread over Lahore with 6 stations and 14 emergency ambulances to give good coverage. This has allowed the achievement of a 7 minutes response time in a city of over 8 million population which is an exemplary achievement even internationally.

Advanced rescue equipment has been adopted such as Search-cam, Life Detector (Seismic & Acoustic Sensors) Combi-tool & Cutters. There is a central call centre and on-line GPS monitoring of emergency vehicles. This has allowed extensive data compilation and analysis.

External assessment of the service has been very complimentary.

Dr Usman described the keys to success of the programme as

- Selection of right staff
- Rigorous training of international standards
- Procurement of quality equipment/ ambulances
- Good Management
- Proper defining of SOPs
- Strict Monitoring

The training course for the rescuers includes

- Medical (Pre-Hospital Basic Life Support)
- Rescue
- Fire
- Environment and safety
- Community training
- Drill and physical fitness
- Hospital attachment

Training has been delivered to

- Rescuers (1431)
- Highway Patrolling Police (402)
- Boy Scouts (63)
- Mobilink Staff (Lahore & Islamabad)
- Shell Petroleum Staff (Lahore)
- General Community

**Future developments**

- Establishment of a model Rescue-Fire Service for Lahore is underway.

- Extension of Rescue 1122 to
  - Former divisional HQs
  - Sialkot, Murree, RY khan and Sahiwal

- Developing a Comprehensive Emergency Response infrastructure with well-trained Rescue, Fire, Emergency Medical & Ambulance Services and Community Responders.

**Sri Lanka**

Dr Shirani Hapuarachchi described the training that has been set up in Colombo, arising out of PTC, to set up a First Responder service in the city.

She and her colleagues have started training for fire service trainees (since there is no paramedic job description as such) who underwent a training for nearly a year, with basic training and then clinical attachments to cover physiology/anatomy/pharmacology, blood management, CSSD, wards and operating theatres. They then proceed to their fire service training.

The city-wide ambulance service has been established with a standard telephone number, and radio control of the vehicles. The Sri Lankan authorities are now looking at legislation about the training.

**Further discussion on First Responder Training**

Following these presentations there was discussion as to whether we could have two slide sets, one for medics and the other for trainees with a less advanced medical and educational background. There was additional discussion as to what is the starting point and required skill level for paramedics. Motorway police have been sitting in on and observing PTC courses.

It was suggested (Sir Terence English) that in view of the resource issues particularly for doctors teaching PTC that it would be best to concentrate on teaching the doctors first and then worry about first responders and paramedics later. The latter might be best suited to a more hands on skill station type approach.

The Pakistan Army medics have used the PTC framework to develop their buddy system for injury training.

**Review of the PTC Provider Course**

The various segments of the PTC Course were reviewed by the participants in small groups and suggestions were made to improve the presentations.

A template was suggested for a presentation on Disaster Management to be incorporated into the PTC slide collection. Junaid Razzak offered to email one he has done to PTC HQ.

James de Courcy has collated these suggestions and they will be used during the next review of the course slides. It was stressed that one of the strengths of the course is the uniformity of the slide set and that particularly for quality control one of the requests made by PTC HQ is that the text slides, which are numbered, are not changed. Naturally, course instructors are welcome to insert picture slides. Until now PTC has not had pictures in the slide set, partly to keep it small when emailing it, and partly because of copyright issues. It was suggested that we could build up a collection of images without copyright or patient identifiable information, particularly X rays, perhaps doing this via the PTC HQ website.

## SATURDAY 6th JANUARY 2006

### Plenary talks - summary

The final session brought forth suggestions for PTC to focus on District Hospitals for training of physicians dealing with victims of trauma. Maintaining the non-commercial ethos of PTC and yet ensuring financial viability was considered and it was agreed that fund- raising and modest participant charges to cover expenses was legitimate.

Developing the role of PTC in disaster management and leadership in the area of road safety were considered. Thoughts on auditing the impact of PTC courses were presented.

### The District Hospital as focal point for PTC – the Sind Experience

Prof R. Jooma

(I had to leave during this talk to have my elbow sutured and did not have a copy of the slides – the following is what I noted before I left)

The experience is of a small highly-pressed instructor cadre. One of the issues is that instructors are having to take leave to teach. Issues of remuneration of instructors as well as formal approval of the course and official support for instructors.

The Islamabad meeting has increased understanding on the part of the Government and the WHO. The WHO representative has volunteered seed money in the next JPRM funding tranche for August. Ministerial support was gained for official setting up of courses. The Sind district hospital model to be replicated in other provinces.

### PTC Course, an opportunity to impart disaster preparedness

Dr Shariq Ali FRCS
Head of Burns and Reconstructive Surgery
Dow University of Health Sciences
Karachi

PTC had allowed those doctors who had been on the courses to start discussion about the process of disaster management prior to earthquake, and this proved helpful in the aftermath of the disaster. PTC can play an important role in disaster preparedness by

- Educating the front liners
- Highlighting the issue in media
- Involving the policy makers

Major Disaster management discussions have been an integral part of all the PTC Sindh Courses. Educating by using Socratic, didactic and interactive methods. The template introduced by Professors Rebecca Jacob and John Beavis has proved very helpful.

Several approaches have been used in teaching on this topic – Socratic and didactic methods, and scenarios. The Socratic approach of asking questions has allowed the participants to consider their current approach, e.g.

- What are disasters?
- Do you have written Disaster Management plan e.g. mentioning
- On-site management
- Key personnel identification
- Trauma triage

- What is the state of resources, organisational preparation and contingency planning?
- Pre-hospital selection and on-site care?
- Transportation?
- In-hospital care?
- Do you practice disaster scenarios?
- Allocated Medical teams in your hospitals?
- Work out communication facilities and priorities with staff and support systems in advance?

Scenarios have been used to give examples, and obviously the earthquake and its aftermath, and many other disasters, have been very pertinent examples. This has led to the use of a more didactic approach to delivering information on areas like cluster approach to coordination, liaison with other agencies in disaster management, prioritisation approach to triage and so on.

Sharing the experience of the earthquake and subsequent medical involvement has proved very powerful.

PTC can play an important role by

- Stimulating the initiation of emergency medical response systems and disaster management plans
- Training the medical personnel about disaster preparedness
- Increasing awareness for the members of the community
- PTC Course is an opportunity to teach effective triage
- PTC can emphasize on policy makers for better coordination and communication between various agencies
- PTC can advocate standardized Trauma and Disaster documentation

**Challenge of Sustainability of PTC Courses - Perspective from Delhi**
Dr Tarun Sahni

**Context**

PTC Delhi carried out the first PTC course in Sept 2005

This course was inaugurated by the Chief Minister of Delhi. There was a faculty from UK & Pakistan and received much public recognition

The 5th Course will take place on 19th to 21st January at New Delhi

Meeting the costs of each course has been a challenge

**The Beginning** : Driving force leading to PTC Delhi

Exposure to young patients in tertiary care hospitals who had received poor quality primary care of their trauma, and the realisation that road trauma is an emerging epidemic led to enthusiasm of core members to sustain the PTC course, and to put in the commitment and sacrifice to make it possible.

In Delhi, as noted above, there is a massive impact of road trauma with 5840 victims per year, including 2000 fatalities. These victims are predominantly in the 18-45 year age group, the most productive segment of the population. Resuscitation and the

infrastructure of management is often chaotic and haphazard. It has been estimated that of all lives lost in India due to road accidents, a third could be saved with timely quality emergency management.

Global Distribution of RTA's as a proportion of the global burden of disease is rising, from 9th in 1990 to 2nd overall in 2020.

**The Journey**: Experiences in organizing courses

The Delhi chapter, based so far at the Apollo Hospital, is the only chapter in the private sector and some of their challenges are different.

Dr Sahni felt that there are three pillars for sustainability – the team and their motivation to deliver, the infrastructure for the course such as location and equipment, and the funding for the course.

Their **Team** for conducting the courses has a full time core, whose functions include: organising the course, communication, course equipment, course faculty, location, Charges, Printing: manuals , certificates; Records: financial, course attendees, instructors. This core team consists of 1 part time Secretary, Office: existing office and two core team members.

The team delivering the courses comprises the Instructors and those providing the Training aids, Audiovisual material, Time keeping, the Inauguration and closing ceremony. Dr Arun Prasad is the Academic Course Coordinator.

**Infrastructure** for conducting the courses includes the provision of an Auditorium / large hall, Transportation, Food hall, Accommodation for outstation instructors and trainees and equipment for the course.

**Costs of conducting courses**

| | |
|---|---|
| **PTC Office** | |
| **Fixed Costs** | |
| Office space ( renovation & furniture) | 100000 |
| Computers and Phones etc | 50000 |
| | **150000 (USD 3500)** |
| **Variable Costs** | Monthly |
| **Office Rental** | 10000 |
| Secretarial | 15000 |
| Elect & Phone | 7500 |
| Stationery etc.. | 5000 |
| | **37500 (USD 900)** |
| Course Costs | |
| Audio Visual | |
| Auditorium X 2 days @Rs 5000/- per day | **10000** |
| Audiovisual equipment | **5000** |
| Food | |
| 2 lunches x 35 people x Rs 200 per head | **14000** |

| | |
|---|---|
| 4 Tea X 35 people x Rs 20 per head | **7500** |
| Faculty Dinner + sponsors 15 people @ Rs 500/- | **7500** |
| Delegate Dinner + sponsors 35 people @ Rs 250/- | |
| Manuals & CD | |
| Trainin g Manual @ Rs 100 x 20 delegates | **2000** |
| Instructor Manual @ Rs 100 x 20 delegates | |
| Gift to delegates 25 @ Rs 200 each | **5000** |
| Consumables per course | **5000** |
| Total Expense per course | **56000 (USD 1200)** |
| Proportion of Annual Expenses ( 25%) | **112500** |
| | **168500( USD** |
| Total Costs per course ( 4 courses / year ) | **4000)** |

**Additional Costs**

Travel Costs : International , visit different chapters
Accommodation
Posters , brochures , web site
Local Transport

**Source of Funding**

Seed money: core team. Additional conditional pharmaceutical funding. Support from Advent Health Care.
Course fees: pharma funding and self funding.
Future plans include corporate funding, for instance by stake holders in the automobile industry, and WHO training grants.

**Components to sustain PTC Courses (current practice)**

Team :Dedicated and committed

- Core Team ( Honorary)
- Pool of Instructors ( Honorary)
- Secretarial Staff ( Paid)
- Marketing and promotion (Paid)
- Support staff ( paid)

Infrastructure :

- Office space – own offices
- Auditorium & halls : Apollo Hospital

Equipment : Apollo Hospital
Funds

- To sustain the courses and promote it
- To regularly conduct the course

**Learning from others: International experience**

Overview on sustainability

- The work of NGO is by nature “unprofitable"

- Policy makers & donor agencies have a vested interest in NGO's achieving financial sustainability since they fulfill a need in society
- NGO rely on goodwill of others to cover costs of these activities through grants and donations
- Traditional funding sources are often insufficient to meet growing needs and rising costs
- Long term planning is difficult : and hence cannot achieve full potential
- When costs exceed inflow : Reduction in quality and quantity may occur

**The Funding Challenge**

- Most of the worlds NGO's face a similar dilemma of lack of funds
- Dependence on grants can inhibit autonomy : "follow the money"
- Some donors will only cover some costs and the balance must be met by own resources : but "HOW"
- There is no right answer.
- It is up to each NGO and its managers to consider all the funding options available and to choose the most appropriate mix,
- They must determine which core activities and implementation strategies are most appropriate to their mission and goals.

**Changing approach to Sustainability - there is the beginnings of a movement to help NGOs become more financially secure.**

- Enhance entrepreneurial spirit, good planning and hard work
- Expanded fund-raising activities directed at the general public,
- Tapped new corporate donors for monetary and in-kind support,
- Hold one-time events such as the LIVE/AIDS concert.
- Cost-recovery components whereby the beneficiaries of the program pay part, and sometimes all, program costs.

And today we even see NGOs owning and managing restaurants, tour companies, banks, clinics and other businesses.

**Solutions on sustainability - Financial Security through Diversification**

- Key to financial security is diversification: holding a mixed portfolio of investments rather than depending on a single investment to meet current and future income needs.
- NGOs can obtain funds to run their programs from three sources:
  1st : Reaching out to newer donors with innovative fund raising approaches
  2nd :Introduce charges in fees for beneficiaries to meet part of the cost
  3rd : "make money" through commercial ventures
- Determine the most appropriate resource generating strategies to enable their organizations to continue and expand their important work

**Current Challenges & Discussion points**

***Funding***

In the future dependence on grants and sponsorship is unsustainable. To sustain we will need to have a consistent flow from the people we train

- State Governments
- Fixed sponsored seats for corporate clients
- Automobile Industry
- Roadway authorities

In addition WHO courses may gain training grants, and linkage with other bodies who will help raise funds. The latter could include organisations such as ICONGO, which is the first philanthropy facilitator, advisor and promoter in India.

***Conducting courses outside Delhi*** is an issue, with Equipment, Faculty and Funds. Sustainability of current courses is also a challenge, needing to consider alternative locations and compensation to facult.

***Competing (?) with other similar courses*** **such as ATLS**

***Marketing and promotion***

Brochures
Posters

***Government / Private***
***Refreshers / Revalidations***
***Audit Committees***
***Role of PTC ( UK ) in sustainability***

- Corpus funds
- UK organizations : BCL. DFID , Charities
- WHO

***Guidelines for opening regional chapters***
***Charges to Trainees***
***Guidelines for charges by regional chapters in the country :***

- Quality standards
- Contribution to central funds

***Methods to raise funds and self sustain Commercial activities to generate funds : T shirts , First aid Kits etc..***

**PTC and Injury Prevention - *How to Cut Your Business Down***

Junaid A. Razzak MD PhD FACEP
Associate Professor and Chief
Emergency Medicine
Aga Khan University, Karachi

Dr Razzak presented three cases: a pedestrian hit by a bus, a mottorcyclist without helmet at age 12 and a fall from a window without barrier, all of which were preventable. With the global situation of massive impact of trauma particularly in the poor in developing

countries one factor is that Trauma Care is expensive no matter how you do it. There will never be enough funding for its treatment. No private hospital will ever want to be a trauma receiving hospital unless guaranteed support from government. Trauma system is part of larger health system and resources spent on trauma means resources taken out from somewhere else. Prevention must therefore be a priority.

Dr Razzak felt that PTC can have a role in this, through its public credibility and respect, large number of trainees and stories and statistics of victims. PTC can be Champions and Advocates and make it a "public" issue and a "political" issue. Defining and describing the problem through Trauma Registry and Emergency Department Surveillance.

**Opportunities for PTC Pakistan to collaborate**

Training opportunities -

- On-line courses – through AKU-JHU Injury Research Training Grant
- Courses in October during Regional Meeting on "Injury – From Prevention to Care"

**Research and Surveillance opportunities-**

- Implementation of Trauma Registry in your hospital and unit

**How should we assess and audit PTC?**

James de Courcy presented some ideas for how the PTC course and programme could be audited, followed by John Beavis introducing an outline of the forthcoming FATA course and its audit.

The areas that can be audited are audit of the course/programme and that of the candidate. In addition assessment can be both formative (to encourage and allow the learner to change their behaviour) and summative (pass/fail).

For comparison the ATLS course was discussed. Candidate assessment methods for this course include pre and post course MCQ – the pre course one is used for formative assessment, to encourage and motivate the candidates to learn; the post course MCQ is for summative assessment with a set pass-mark (80%), and a higher threshold mark for potential instructors (90%). The faculty score the candidates for their performance in each part of the course and discuss them regularly during the course. Scenario testing is used with set scenarios with "critical treatment decisions" that have to be fulfilled to pass. Assessment of the overall ATLS programme includes reporting from each course by the Course Director to the national centre (for the UK, the Royal College of Surgeons), regular inspection of courses by members of the National Faculty and confidential reporting to the national centre for each course by a member of the faculty.

More globally, evidence for the benefit of ATLS is limited and mixed. There is surprisingly little research evidence on its outcomes.

**What questions should be asked?**

- Changed knowledge, skills, attitudes - both initial and maintained in the longer term.
- Outcomes – for instance comparing Mortality vs ISS
- The Resuscitation process

Currently PTC is not formally assessing the candidates in a pass-fail summative way. The pre and post course MCQ aper is used as a formative assessment, and the scenarios are not used for formal assessment. The PTC programme is assessed currently by candidate feedback sheets at the end of the course, and by reports being sent to PTC HQ from each course, to provide information on what is happening and to keep a record.

Currently some changes are being made: a new MCQ set has been compiled and a larger MCQ question bank is being worked on. The aim will be to have three papers of 50 questions with 50 spare questions. These need to be validated. In addition, an alternative method called extended matching questions (EMQ's) are being considered.

Potential basic more formal assessment methods that are being considered include, for the participants, formal MCQ's before and after similarly to ATLS, with a set pass mark for the post-course test, and an assessed scenario with pass-fail criteria.

Assessment of the PTC programme could be by more formal candidate feedback, by instructors teaching on other areas' courses, and by informal outcome questionnaires as has been done in Sri Lanka.

More advanced assessment methods for participants could be as listed above, with additional possible MCQ, EMQ or scenario questionnaires 3 or 6 months after course. With current widespread access to email these could be administered by this route. They would allow testing both of concepts and of factual knowledge, and would have a useful educational function of encouraging reinforcement of the course material and approaches. Observation of individual participants' performance in Trauma management would be possible but very difficult.

More advanced methods for the Programme could include RCT or other comparative studies of trauma outcomes before and after PTC training in a district or hospital. As discussed above, such studies have rarely been done for trauma courses. Other potential approaches could include re-visits and inspection of courses by PTC faculty.

John Beavis outlined the possible application of some of these approaches in the forthcoming extension of PTC training into the Federally Administered Tribal Areas in Pakistan. James de Courcy outlined the planned RCT assessment of the programme and its outcomes in China.

**Summary and the way forward: Dr. Douglas Wilkinson**

Doug Wilkinson appreciated the energy of PTC in South Asia. He suggested an organisational model in which for each nation the focus of activity be a provincial/zonal Group (as presently in Pakistan) and along with this there be a National Committee with representation from the participating Groups. The latter Committee would liase with the relevant authorities and encourage PTC within the nation.

The meeting ended with a group photograph.

**1st South Asia Primary Trauma Care Regional Meeting**
**King Edward Medical University, Lahore**
**4th – 6th January 2007**

## Appendix 1

## Possible modifications to the Course

Results of feedback from working groups

### Airway

? should introduce LMA into the basic adjuncts, together perhaps with combitubes etc.
Include something on oxygen physiology

### Circulation

Dr Shibli had shown the materials to a representative group of his colleagues. The senior doctors felt was too low a level. Nurses, medical students and RMO's all felt the level and content was very suitable.

Commented that there is not enough in the lecture about intravenous access skills, and wondered if these could be incorporated into a skill session.

### Chest

Potential value for putting images of X-rays into the official slide set. Potential for using the website as an official repository for copyright-free pictures without patient identification data.

### Abdo

Manual felt to be OK. Considerable discussion about DPL and ultrasound. Was felt that US should be mentioned.

Need to mention approaches for stabilization of open book pelvic fractures: can be incorporated into a skill station.

### Limbs

Generally OK.
Potential changes:

- Compartment syndrome needs more detail.
- Need to bring in crush syndrome as this can be life-threatening
- ?slides on splintage methods: role in skill station
- There was discussion about fat embolism, though the role of this in the acute situation was debated, particularly since the initial management taught is the best prevention.

### Heads and Spines

Slide 142: practice has changed with depressed skull fractures and would generally operate now.

Steroids: no – include this

Hyperventilation 4.5 – 5

?specific comment about NG tubes in head injury

Importance of airway security if anticonvulsants are being used.

Analgesia and sedation in head injury

There was discussion about whether it is appropriate to mention burr holes. Given the spread of locations where PTC is taught and used it was felt appropriate to leave it in for rural locations. Not for acute subdural: for extradural rarely the best option.

**Relaxants and intubation**

Spines: query about need for a skill station on spine traction

Importance of BP maintenance during transfer of a quadriplegic with neurogenic shock.

**Paeds and pregnancy**

The group went through the slides and a few minor modifications were discussed (JdeC has annotated set).

Need to put intraosseous with greater emphasis in routes

Which fluids?

Some text on chest and heads

Pregnancy: stress that should do xrays as indicated in the secondary survey

Paeds fluids and equipment well done as a discussion group to underline the lecture content

Obstetrics: helpful to ensure that one of the scenarios is a pregnant lady to underline the important factors, particularly how to do lateral displacement.

**Burns**

Shariq Ali is sending his comments separately to JdeC.

Summary slide – consequences are vague

Slide 193: need to make more systematic – primary survey, secondary survey etc

194 – include associated injuries

Potential additional slide: identify and treat associated injuries rapidly.

**Disasters**

Suggestions will be emailed to JdeC