PTC NEWS

Edition 8

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APRIL 2007

THIS MONTH

In this edition, we feature:

- **PTC 1st Regional South Asia Meeting - Lahore**

PAKISTAN

PTC 1st REGIONAL SOUTH ASIA MEETING LAHORE 2007

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)

Prof. P. Beavis
U.K Prof of Orthopaedics & Trustee PTC UK

Sir Terence English U.K Patron of PTC

Prof. James de Courcy
U.K Anaesthetist & Trustee PTC UK

Prof. Douglas Wilkinson
U.K Anaesthetist & Chairman of PTC UK

Dr. Rebecca Jacob
India Anaesthetist & Chair of PTC India

Dr. Rajesh Gongal Nepal Chairman, PTC Nepal

Dr. Rajedra Prasad
India Chairman, PTC New Delhi

Dr. Tarun Sahni
India General Surgeon, New Delhi

Dr. Ranjith Ellawala
Sri Lanka General Surgeon & Chair of PTC Sri Lanka

Dr. Hapuarachchi Shirani
Sri Lanka Anaesthetist & Founder PTC Sri Lanka

(NATIONAL FACULTY)
Dr. Shams Nadeem Alam
General Surgeon, Karachi
Dr. M. Arif Khan General Surgeon, Peshawar
Dr. Sabina Shibli Anaesthetist, Karachi
Mr. Naveed Shinwari PTC volunteer Peshawar
Mr. Tahir Ali PTC volunteer Peshawar
Dr. Abdul Rashid Panjwani
Anaesthetist, Karachi
Dr. Saeed Minhas
Orthopaedic Surgeon, JPMC, Karachi
Dr. Shariq Ali Plastic Surgeon, DUHS, Karachi
Dr. Rashid Jooma
Neurosurgeon, JPMC, Karachi
Dr. Nurul Haq
Anaesthetist, ASH & KM&DC, Karachi
Dr. Bushra Shirazi
General Surgeon,Ziauddin Hospital, Karachi
Dr. Khalil Shibli
Anaesthetist, Ziauddin Hospital, Karachi
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Orthopaedic Surgeon, KEMU, Lahore
Prof Arshad Cheema
Orthopaedic Surgeon, KEMU, Lahore
Dr. Abul Fazl
Gen Surgeon, Allama Iqbal Univ. Lahore
Dr. Mohammad Aziz Wazir Peshawar
Dr. Alamzeb Durrani
Orthopaedic Surgeon, Peshawar
Dr. Mahmud Aurangzeb
General Surgeon, Peshawar
Dr. Ghulam Haider
Medical Officer, AKHSP, Gilgit
Dr. Nisar Hussain
Medical Officer, AKHSP, Gilgit
Dr. Mohammad Imran
Medical Officer, AKHSP, Gilgit
Prof. Arbab Rasool
General Surgeon & Chairman, PTC, Quetta
Prof Haji Manzoor Plastic Surgeon, Quetta

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 ensue

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.

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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)

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.

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 faculty

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.

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

CONTRIBUTIONS

We welcome contributions for forthcoming issues of the Newsletter.

- **Course reports and photographs**
- **Upcoming course details**
- **Country visits**
- **All PTC news welcome**

Please send items to admin@primarytraumacare.org