

PRESIDENT'S MESSAGE

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The year 2004 was a big year for International Trauma Care (ITACCS) and trauma in general. There is the ongoing military conflict in Iraq and, as I write this (December 2004), the number of deaths and injuries from the earthquake and tsunami in the Indian Ocean continues to rise. This latter event has been unprecedented in its effects and in the responses from around the world and will no doubt feature in detail in a future issue of the *TraumaCare* journal.

The WHO used World Health Day on 7 April 2004 (part of UNECE Road Safety week, 5 to 9 April 2004) to highlight road trauma and launch the World Report on Road Traffic Injury Prevention and the global road safety campaign. The launch emphasized that road safety is no accident! It resulted from a WHO-World Bank collaboration, which was 18 months in the making, involved over 100 experts from 40 countries, and covered health, transport, education, police, social science, and governmental and nongovernmental agencies. There were two documents: a full report for practitioners and researchers, and a 40-page summary for policy-makers. Each year 2 million people die on the roads, while 20-50 million more are injured or disabled. This accounts for 2.1% of all global deaths. It is increasingly recognized that the majority of road traffic injuries occur in low- and middle-income countries and that there are many identifiable factors that can influence this. Factors influencing exposure to risk include economic factors, demographic factors, land use, travel modes, and road design. Risk factors influencing crash involvement include speed, alcohol and other drugs, fatigue, vulnerable road users, vehicle factors, and defects in road design. Risk factors influencing crash severity include human tolerance factors, speed, alcohol and other drugs, not using seatbelts, child restraints, helmets, insufficient vehicle crash protection, and unforgiving roadside objects. Our traditional focus on risk factors influencing severity of postcrash injuries involves the chain of medical care from prehospital to rehabilitation.

The perhaps ambitious plan of this WHO initiative is to manage exposure to risk through transport and land-use policies, shape road networks for road injury prevention, provide visible, crash-protective, "smart" vehicles, set and secure compliance with key road safety rules, and deliver the all-important postcrash care. Doing this will require identifying a lead agency in government to guide the national road traffic safety effort, assessing the problem, policies and institutional settings, preparing national road safety strategy and plans of action, allocating financial and human resources, and supporting the development of national capacity and international cooperation.

It was therefore timely that we held TraumaCare 2004, a joint meeting of the Australasian Trauma Society (ATS) and

International Trauma Care (ITACCS), in Sydney on 15-17 October 2004. Over 500 delegates from 37 countries met in Darling Harbour. The meeting was well supported by industry and our sponsors and principle sponsor, Laerdal, ensured an excellent exhibition and opportunity for practitioners to meet with the industry that supports us. An international faculty of 97 gave a superb account of the multidisciplinary approach to trauma management. The enthusiasm of the audience was clear from the opening plenary session through to the final "standing room only" session on terrorism on the last day. The full spectrum of trauma management was covered, from prehospital to rehabilitation, with representatives from all aspects of trauma management both as presenters and in the audience. It is rare to get such a multidisciplinary interaction at medical conferences and perhaps this is one of the reasons that the TraumaCare meetings continue to be such a success after 16 years.

The complexity and diversity of trauma management was beautifully illustrated in a quartet of opening plenary sessions with an evolutionary theme. Joanne Williams from the USA spoke on "It's All Ancient History; Ancient Egyptian, Greek & Roman Trauma Care" and was followed by Peter Baskett from the UK, who in inimitable style, spoke on "Two Centuries of Advances in Trauma Care," achieved in about 20 minutes! We were brought rapidly up to date by Ken Boffard from South Africa, who illuminated us with "I Have Seen the Future!" and finally Mark Fitzgerald from Melbourne spoke on "Visions for Australasian Trauma Care 10 Years Hence." The quality standard for the rest of the meeting was set and the packed program was miraculously kept on time.

It was my pleasure during the opening plenary to recognize with International Trauma Care (ITACCS) Lifetime Achievement Awards, two major contributors, Peter Baskett and Wolfgang Dick. Peter Baskett received his award following his plenary lecture and the citation read as "Lifetime Achievement Award presented to Peter JF Baskett, BA, MB, BCh, BAO, FRCA, FRCP, FFAEM, Dip IMC (Ed). In recognition of an exemplary career dedicated to Anaesthesia, Intensive Care, Emergency Medicine and Trauma Care. We acknowledge outstanding service to International Trauma Care (ITACCS) as a founding member and past President. With deep gratitude on behalf of trauma patients and trauma care professionals around the world. October 2004. Citation given in Sydney on the occasion of TraumaCare 2004/17th ATACCS." Again in inimitable fashion, it was accepted with gratitude and the comment, "And you did it while I'm still alive!" The citation for Wolfgang Dick read "Lifetime achievement Award presented to Prof. Dr. Dr. h. c. Wolfgang F Dick, FRCA. In recognition of an exemplary career dedicated to Anaesthesia, Trauma Care, Emergency Medicine and Critical Care. We acknowledge outstanding service to International Trauma Care (ITACCS). With deep gratitude on behalf of trauma patients and trauma care professionals around the world. October 2004. Citation given in Sydney on the occasion of TraumaCare 2004/17th ATACCS." The award was accepted in his absence by Andreas Thierbach, who hand-delivered it in Germany.

The meeting was further split into 44 sessions over the 3 days. All aspects of trauma care were covered in invited presentations as well as 44 poster presentations and 50 oral papers from delegates. (Abstracts of these presentations will

be published in the Spring 2005 issue of *TraumaCare*.) There were workshops on organ donation, microsimulation, airway management, and suturing, which were very well attended, and the conference had been preceded by a successful trauma ultrasound and ATS data reporting meetings.

While it is impossible to highlight particular contributions over others, there were very notable sessions on developing nations. One such session featured the "Guidelines for Essential Trauma Care." These recommendations have resulted from collaboration of the Department of Injuries and Violence Prevention (VIP) of the WHO, members of the International Association for the Surgery of Trauma and Surgical Intensive Care (IATSIC), representatives of other organizations and other departments of WHO, such as the Department of Essential Health Technologies, which are involved in developing training materials on essential surgical care and trauma, and trauma care clinicians from Africa, Asia, and Latin America, including members of International Trauma Care (ITACCS). This initiative evolved from recognition that injury is a major cause of death and disability worldwide and in terms of treatment; there are many low-cost improvements that could be made to enhance the care of injured persons. The goal of the "Guidelines for Essential Trauma Care" is to promote such low-cost improvements. The guidelines seek to set achievable standards for trauma treatment services that could realistically be made available to almost every injured person in the world. They then seek to define the resources that would be necessary to assure such care. These include human resources (staffing and training) and physical resources (infrastructure, equipment and supplies). By more clearly defining such services and resources, the hope is that the guidelines will facilitate the strengthening of trauma treatment services worldwide. The basic premise of the guidelines is that improvements in organization and planning can result in improvements in trauma treatment services and, hence, in the outcome of injured persons, with minimal increases in expenditures. Broadly construed, these guidelines are of relevance to anyone involved in planning trauma care services or anyone who might wish to promote improvements in the care of the injured in their country. A pdf copy of the guidelines is available at:

<http://whqlibdoc.who.int/publications/2004/9241546409.pdf>

The TraumaCare 2004 prizes in the form of unrestricted educational grants were awarded to:

Best Free Paper

Rapid Extraction: A New Innovative Extraction Method.

Lars Wik, Trond Boye Hansen, Kjell Kjensli, and Petter Andreas Steen.

Best Paper by a Trainee

A Prospective Double Centre Trial of Photomessaging in Trauma.

D. Baker, L. Hannaway, R. Owen, S. Sarasin, J.P. Davies, P. Alderman, and R. Rice.

Runner-Up Best Free Paper

Driveway Injuries—A Prospective Review of the Injury Environment.

F.I. Ross, A.J.A. Holland, and D.T. Cass.

Best Poster

Transport of the Paediatric Trauma Patient with Actual or Potential Spinal Cord Injury—Variation in UK Practice.

S.W. Hancock, S.A. Russ, J.M. Quinton, and R.J. Moore.

Runner-Up Best Poster

Reduced Time on the Spinal Board—Effect of Guidelines and Educator for Emergency Department Staff.

J.H.H. Yeung, N.K. Cheung, C.A. Graham, and T.H. Rainer.

All the contributors to the meeting can be justifiably proud of their achievement in what was one of the best TraumaCare meetings in memory and the most successful ATS joint meeting to date. The social side of the meeting was also enormously successful and carefully coordinated by Emma Waygood of Conference Action, our conference organisers. The cocktails at the Maritime Museum and the gala dinner featuring the "Rat Pack" were unforgettable. Some of the singing from the audience accompanying the "Rat Pack" was totally forgettable (they made me do it) and my Co-convenor Tony Joseph did not disappoint any of his fan club on the stage later in the evening. (Enough said; we have pictures!)

The business of the Annual General Meeting saw the election of officers with Jim Cain (USA) becoming President-elect of International Trauma Care (ITACCS). He takes over from me and becomes Vice-President in May 2005. Keiichi Tanaka (Japan) became Vice-President (Asia) and Maureen McCunn became Vice-President (North America). It was noted with sadness that Dr. Iqbal Mustafa from Jakarta, Indonesia, had died suddenly and the Society joined in sending their condolences to his family.

Future TraumaCare meetings were outlined. TraumaCare 2005, the 18th ATACCS, will be held in Paris in conjunction with Urgences 2005 and will be coordinated by Yves Lambert (France) for ITACCS. TraumaCare 2006, the 19th ATACCS, is proposed to be held in Santiago and Juan Pablo Ilic (Chile); the convenor was in attendance in Sydney. TraumaCare 2007, the 20th ATACCS, is likely to be in India and this prospect has been greeted with great enthusiasm by the ITACCS Indian Chapter.

On other educational projects, International Trauma Care (ITACCS) collaboration with Northwest Anesthesia Seminars continues to flourish and a full listing of the resort seminars can be found under Programs and Courses at www.itaccs.com. The 7th International Chief Emergency Physician Training Course will be held in Dunedin, New Zealand, 11-15 July 2005. For more information please visit the website at <http://itaccs.healthotago.co.nz>. Representatives from International Trauma Care (ITACCS) are continuing to work with members of the European Resuscitation Council on a European comprehensive training course for trauma management

Literary projects continue to come to fruition and 2005 will see the publication of our latest major publication, the textbook *Trauma, Resuscitation, Anaesthesia and Critical Care*, which has been edited by Bill Wilson and Chris Grande. The *TraumaCare* Journal continues to evolve. The excellent Winter 2004 issue on "Preparedness for Bioterrorism" was followed by issues focusing on hypothermia in trauma, etomidate use in trauma, and this issue, which presents articles developed from six presentations at TraumaCare 2004. Future issues focusing on blood conservation/transfusion and damage control surgery are in preparation. International Trauma Care (ITACCS) Critical Care Committee has produced "Guidelines for Mechanical Ventilation in Patients following Traumatic Injury," which focus on preventive ventilatory strategies for trauma patients at risk of ALI/ARDS, and will be available on the website in the future. A preliminary article on this topic appeared in the Fall 2004 issue of *TraumaCare*. Other guidelines are also being worked on, including "Guidelines for the Management of the Hypotensive, Critically Injured Patient" and "Guidelines for Safe Transfusion Practice in Trauma Patients," which is a continuum of our association with the Global Collaboration for Blood Safety initiative, a WHO project to improve global collection, testing disbursement, and clinical use of blood.

The role of our website will continue to be refined to provide rapid access to our resources and CME activities for our membership. International Trauma Care remains a not-for-profit organisation and all of these activities are supported by and produced by hard-working clinicians and support staff who do these activities in their own time and without financial

reward. They all know why they do these things; it is because they care, for which they have my gratitude and admiration. I am honoured to have been the President of International Trauma Care (ITACCS) from 2002–2005 and I congratulate Jim Cain on his new role. I also look forward to our future collaborations and achievements.

BLOOD USE ISSUES

Blood Use in War and Disaster: The U.S. Experience

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Learning Objectives: 1) To review the history of blood use during wars and disasters in a large country with a well-developed blood service to provide examples for disaster planning, and 2) to review policy options for providing blood in emergencies.

Abstract

Several highly developed countries, such as the United States and Australia, first built national blood transfusion services during World War II. When the U.S. system was fully operational, the military ended up using only about 5% of the blood collected. Wars since that time, including Korea, Vietnam, and the first Gulf War, were smaller in scale and used an even smaller fraction of the total national blood supply, despite greater relative per-casualty blood use. The largest civil disasters are one to two orders of magnitude smaller than these medium-sized wars and generally last only 1 day. Thus, in the United States, there were four civil disasters between 1975 and 2000 where the care of the casualties required more than 100 units of RBC in the first 24 hours. In every case there was more than enough blood in local supplies and even more available in neighboring regions. Insuring an adequate blood supply for disaster and military needs requires only having an adequate national blood supply that can be tapped when disasters occur.

U.S. Army medical officers built the world's first blood bank at the Battle of Cambrai during World War I.¹ They

oversaw the creation of a national blood program in World War II. In Korea and Vietnam, the wide availability of blood helped reduce the died-of-wounds rate from 12% of all casualties in World War I and the 6% experienced in World War II to less than 3%. The Korea and Vietnam in-hospital death rates are the lowest ever recorded for combat casualties, and approach the 2% in-hospital death rates of modern trauma centers. Since Vietnam, the numbers of casualties from our military actions have been small despite continuing planning for massive casualties using Cold War models.

This widening discrepancy between how we fight and how we plan causes several problems for the blood program. We spend scarce resources to build infrastructure that may not be of the right kind or in the right place. We train blood program officers to perform tasks that may never be required and fail to train them to see changing patterns of blood use as opportunities to improve casualty care. The public waste of blood threatens our relationship of trust with the donors that we will use their gift wisely.

To better understand changing patterns of blood use, it is useful to examine American military blood use and policy in the 20th century wars. Historic sources are available and living participants can be interviewed. A specific focus on the numbers of blood units provided, how the blood was handled, and what the participants thought they were accomplishing is useful. Blood use in civil and natural disasters provides a comparison. This article describes U.S. blood use in eight wars, five civil disasters, and three natural disasters.

Military Experience

World War I. The scientific basis for blood banking was discovered just before World War I. In 1913, Ottenberg and Kaliski² published a series of cases that showed that ABO typing largely prevented the “accidents and disasters” of transfusion. The following year, three separate individuals described the use of citrate as an anticoagulant. These discoveries were converted into the tools of modern blood banking, hemagglutination blood typing, and red blood cell storage solutions, by Peyton Rous and his colleague J. R. Turner³ at the Rockefeller Institute in 1915 and 1916, and delivered to the battlefield by Rous’ postdoctoral student, Lieutenant Oswald Robertson⁴ of the Medical Officer Reserve Corps, U. S. Army, in 1917. Effective blood storage allowed the separation of donor and recipient in space and time.⁵ Stored blood in bottles converted transfusion from an act of surgical bravado to an item of medical logistics and made it a professional service.⁶ Blood transfusion became the accepted resuscitation therapy of the British Expeditionary Force to which American hospitals and physicians were attached in March 1918.⁷

Presented at the 17th Annual Trauma Anesthesia and Critical Care Symposium, Sydney, Australia, October 15–17, 2004.
Dr. Hess has no conflicts of interest to disclose.