James C. Eisenach, M.D., Editor

International Trauma Anesthesia and Critical Care Society (ITACCS). Stavanger, Norway. May 23–25, 2002.

The 15th Annual Trauma Anesthesia and Critical Care Symposium was attended by 1,100 delegates from 43 countries. The theme, "Trauma Chain of Survival," provided continuity to the lectures and workshops.

A preconference session focused on the role of trauma registries in improving patient care and survival. Speaking from the public health perspective, Howard R. Champion, F.R.C.S., F.A.C.S. (Professor of Surgery and Military and Emergency Medicine, Uniformed Services University of the Health Sciences, Bethesda, Maryland, USA), suggested that injury caused by violence (interpersonal, self-inflicted, and war) is the most significant public health challenge of the 21st century. Petter Andreas Steen, M.D., Ph.D. (Division of Surgery, Ulleval University Hospital, Oslo, Norway), reviewed "Recommendations for uniform reporting of data following major trauma—the Utstein style," developed by the International Trauma Anesthesia and Critical Care Society in 1999.[1] Thomas A. Genarelli, M.D., F.A.C.S. (Department of Neurosurgery, Medical College of Wisconsin, Milwaukee, Wisconsin, USA), discussed difficulties with current injury severity scoring systems and presented suggestions toward an update of the Abbreviated Injury Scale.[2]

In the opening plenary, Peter A. Oakley, M.A., F.R.C.A., M.R.C.G.P. (Consultant in Anaesthesia and Trauma, North Staffordshire Hospital, Stoke-on-Trent, UK), noted that the trauma chain of survival has shifted over the past 30 yr from survival to rehabilitation. C. William Schwab, M.D. (Division of Traumatology and Surgical Critical Care, Department of Surgery, University of Pennsylvania, Philadelphia, Pennsylvania, USA), described the clinical challenges presented by the exsanguinating patient. Kerstin Sluys, R.N. (Clinic of Surgery, Karolinska Hospital, Stockholm, Sweden), introduced the Swedish Association of Trauma Nurses. Defining "extreme conditions" as lack of access to medical care, Mads Gilbert, M.D. (Anestesiavdelingen, Regionsykehuset i Tromsø, University Hospital of North Norway, Tromsø, Norway), related his experiences in impoverished areas, where medics have been trained in trauma care protocols developed in the northern hemisphere but with adaptations allowing realistic applications in remote communities.

In the session on patient safety, Paul R. Barach, M.D., M.P.H. (Department of Anesthesia and Critical Care, University of Chicago, Chicago, Illinois, USA), cited medical safety as an ethical imperative. With recent studies revealing thousands of preventable errors in US hospitals, studies of human errors will move health care from error counting to harm prevention. Peter A. Oakley, M.A., F.R.C.A., M.R.C.G.P. (Consultant in Anaesthesia and Trauma, North Staffordshire Hospital, Stoke-on-Trent, UK), emphasized the importance of communication in effective trauma team leadership, warning that arrogant leaders "fly into mountain sides." Daniel Scheidegger, M.D. (Department of Anaesthesia, University of Basel, Kantonsspital, Basel, Switzerland), presented an insightful critique of the teaching of trauma care, emphasizing the need for standardized briefing when patients are transferred from one phase of care to another. Noting variations in the use of animal models and cadavers in medical training, Jerry P. Nolan, M.B., Ch.B., F.F.A.R.C.S. (Department of Anaesthesia, Royal United Hospital, Bath, UK), observed that ethical issues are leading to the use of manikins and simulation in many medical schools. Guttorm Brattebø, M.D. (Haukeland University Hospital, Bergen, Norway), described a medical simulation project in which trauma teams critique videotapes of their performance and work together to identify and implement changes.

Introducing the pain management session, Per E. Haavik, M.D. (Department of Anesthesia and Intensive Care, Rogaland Central Hospital, Stavanger, Norway), noted that articles abound on alleviation of postoperative pain, but little has been published about the management of pain after trauma. Studies are underway in the prehospital and in-hospital phases of care. Peter A. Driscoll, B.S.C., M.B., Ch.B., F.R.C.S., F.A.A.E.M. (Emergency Department, Hope Hospital, Salford, UK), stressed that analgesia must be maintained until the source of pain is identified and removed. Asgeir Kvam (Seksjonsoverlege, AMK, Ullevål Sykehus, Kirkeveien, Oslo, Norway) advocated a prehospital approach employing few protocols and one analgesic (morphine). A pain management technique used successfully by prehospital care providers in Vienna is acupressure, as described by Alexander Kober, M.D. (Research Institute of the Vienna Red Cross, Vienna, Austria). Johan Ræder, M.D. (Department of Anesthesiology, Ullevaal Hospital, Oslo, Norway), rated various anesthetics according to their effects on parameters such as ease of emergence, suppression of respiratory function, and avoidance of nausea and vomiting. Anthony H. Dickenson, M.D. (Department of Pharmacology, University College, London, UK), reviewed new agents developed for pain treatment (*e.g.*, opioids, cyclooxygenase-2 inhibitors, and antiepileptic drugs). The role of epidural analgesia was explored by Narinder Rawal, M.D., Ph.D. (Department of Anaesthesiology and Intensive Care, Örebro University Hospital, Örebro, Sweden), and the importance of aggressive pain control after burns was discussed by Sam R. Sharar, M.D. (Department of Anesthesiology, University of Washington School of Medicine and Harborview Medical Center, Seattle, Washington, USA). Strategies for preventing posttraumatic chronic pain were reviewed by Audun Stubhaug, M.D. (Department of Anaesthesiology, Rikshospitalet, University Hospital, Oslo, Norway).

Advantages of the Advanced Trauma Life Support and Prehospital Trauma Life Support protocols were debated in a session titled "American Imperialism or the Road to Improved Outcome?" Carl L. Gwinnutt, M.B., F.R.C.A. (Department of Anaesthesia, Hope Hospital, Salford, UK), described the American College of Surgeons' domination of the Advanced Trauma Life Support system by "encouraging dependence" (allowing its use, after purchase, only with an American College of Surgeons–approved course). Claus Falck Larsen, M.D., Ph.D. (Copenhagen University Hospital, Trauma Center, Copenhagen, Denmark), stated that Advanced Trauma Life Support provides consistency and has changed the way trauma care is managed. The consensus among participants was that Advanced Trauma Life Support provides a framework on which hospitals in different nations can build and tailor their own approaches.

During the intensive care in trauma session, Lars Heslet, M.D. (Intensive Care Unit, Rigshopitalet, University of Copenhagen, Copenhagen, Denmark), reviewed the pathophysiology of sepsis and suggested methods to decrease infection in trauma patients. The use of prophylactic oral antibiotic paste has decreased the incidence of pneumonia and subsequent mortality in intubated patients. Early short-term ($<$ 48 h) antibiotic therapy targeted to the organ of injury has decreased the incidence of infection. Both sepsis and the adult respiratory distress syndrome (ARDS) have been linked to the number of units of blood products transfused. Pedro Navarrete-Navarro, M.D. (Critical Care and Emergency Department, Virgen de las Nieves University Hospital, Granada, Spain), reviewed risk factors for ARDS in trauma patients. His research uncovered a 10% decrease in mortality from ARDS over the past decade secondary to advanced interventions and treatment modalities (improved mechanical ventilation strategies, pulmonary toilet, prone-positioning therapy, and extracorporeal support). In a discussion of ventilatory strategies for patients with lung injury or ARDS, Walter Mauritz, M.D., Ph.D. (Department of Anesthesia and Critical Care Medicine, Trauma Hospital "Lorenz Boehler," Vienna, Austria), noted that only a few interventions have improved outcome in this patient population: small tidal volume ventilation, intermittent prone positioning in the most critically ill, steroids late in the course of ARDS, and extracorporeal support for those with severe ARDS. Surfactant, partial-liquid ventilation, and high-frequency ventilation have not

improved outcome. Maureen McCunn, M.D. (Critical Care Medicine, R Adams Cowley Shock Trauma Center, University of Maryland Medical Center, Baltimore, Maryland, USA), discussed interhospital transport of trauma patients, demonstrating a reduction in mortality in a subgroup with severe ARDS (average arterial oxygen tension–fraction of inspired oxygen ratio, 60). Advanced interventions, including intermittent prone positioning, airway pressure release ventilation, continuous renal replacement therapies, and extracorporeal support, were instituted when indicated following transport to a trauma center.

A new Annual Trauma Anesthesia and Critical Care Symposium session focused on conduct of research and publication of results. David J. Dries, M.D. (Editor, *Air Medical Journal*; Regions Hospital, St. Paul, Minnesota, USA), described development of research questions and review criteria.[3,4] In a discussion of statistical analysis, Petter Andreas Steen, M.D., Ph.D. (Division of Surgery, Ulleval University Hospital, Oslo, Norway), advocated reliance on common sense and a critical eye when interpreting the significance of study results. Sven Erik Gisvold, M.D. (Editor-in-Chief, *Acta Anaesthesiologica Scandinavica*; Department of Anaesthesia, St. Olav Hospital, University Hospital, Trondheim, Norway), recommended caution in the use of journal impact factors. Commonly used measures are weighted in favor of major, established journals and therefore against smaller, lesser-known publications. Peter Baskett, M.D. (Editor-in-Chief, *Resuscitation*, Bristol, UK), and Jerry P. Nolan, M.B., Ch.B., F.F.A.R.C.S. (Department of Anaesthesia, Royal United Hospital, Bath, UK), discussed the Consolidated Standards of Reporting Trials statement.[5]

C. William Schwab, M.D. (Division of Traumatology and Surgical Critical Care, Department of Surgery, University of Pennsylvania, Philadelphia, Pennsylvania, USA), opened the session on hypothermia, acidosis, coagulopathy, and damage control surgery by explaining the concept of damage control derived from the US Navy. Following penetration of a ship by explosives, emergent procedures are used to stabilize the vessel and prevent sinking. Definitive repair is done later. This analogy can be extrapolated to the patient in hemorrhagic shock following injury. This patient is usually hypotensive, bradycardic, coagulopathic, and hypothermic. A triphasic management approach involves (1) immediate operation to control hemorrhage by packing, (2) rewarming and correction of the coagulopathy in the intensive care unit, and (3) return to the operating room 24–36 h following admission for definitive repair of injuries. Indications for this management approach include pH < 7.3, temperature $< 35°C$, > 10 units of packed erythrocytes transfused, and > 60 min from the time of injury to these parameters. The adverse effects of intraoperative hypothermia were reviewed by Charles E. Smith, M.D., F.R.C.P.C. (Department of Anesthesia, MetroHealth Medical Center, Cleveland, Ohio, USA). Patient rewarming to normothermia is associated with a decrease in the incidence of infection, improved coagulation, and a decrease in mortality following trauma. Mauricio Lynn, M.D. (Division of Trauma and Surgical Critical Care, Ryder Trauma Center, University of Miami School of Medicine, Miami, Florida, USA), discussed his work with recombinant Factor VIIa (NovoNordisk, Gentofte, Denmark) to stop uncontrolled hemorrhage. Recombinant Factor VIIa, used to treat bleeding from hemophilia, enhances production of thrombin, which then speeds formation of the fibrin clot. Administration of Factor VIIa has yielded significant decreases in both surgical and nonsurgical (coagulopathic) bleeding in patients unresponsive to conventional therapies. This is followed by a decrease in transfusion requirements and renormalization of prothrombin time and partial prothrombin time. A multicenter trial is now underway in Europe.

The 16th Annual Trauma Anesthesia and Critical Care Symposium will be held May 15–17, 2003, in Dallas, Texas. Information is available at http://www.itaccs.com.

Linda J. Kesselring, M.S., E.L.S.,* **Diana G. Westbrook, M.A., A.B.C., Maureen McCunn, M.D.,** **TraumaCare*, International Trauma Anesthesia and Critical Care Society, Baltimore, Maryland. lkessel112@aol.com

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24th Annual Spring Meeting and Workshops of the Society for Education in Anesthesiology. Chapel Hill, North Carolina. May 31–June 2, 2002.

The 24th Annual Spring Meeting of the Society for Education in Anesthesia (SEA) "2002: Back to Basics, Back to the Future" was held May 31–June 2 at the Sheraton Chapel Hill in Chapel Hill, North Carolina. While the SEA holds fall meetings prior to the American Society of Anesthesiologists Annual Meeting, spring meetings are held with an academic training program to utilize facilities and faculty. This meeting was cosponsored by the Duke University School of Medicine in Durham, North Carolina. The goal was for academic anesthesiologists to consider how technology, economics, and legislation impact medical and anesthesia education.

The meeting used panels and workshops to facilitate active participation. There were over 150 attendees, which may reflect the "draw" of the cosponsoring institution, as well as the appeal of the meeting brochure. Selected workshops at Duke University included the Human Fresh Tissue Laboratory and the patient simulator. Breakfast roundtable discussions were held daily to plan SEA business and projects and to promote interdepartmental and interindividual collaboration. Community breakfasts and lunches allowed new and regular attendees to meet and mingle between formal sessions.

The first morning featured panels on "The Changing Face of an Anesthesiology Department: A New Chairperson" and "Technology in the Operating Room." The first panel recognized the administrative, clinical, educational, and research issues to be managed by an incoming department chair and the relative impact of each issue, while the second identified electronic resources available to anesthesia practitioners and indicated how they could both contribute to and distract from patient care. Peter S. A. Glass, M.B., Ch.B. (State University of New York, Stonybrook, New York), addressed the issues facing a chairperson who is new to an institution and indicated the importance of being present in the department. Carl Lynch, III, M.D., Ph.D. (University of Virginia, Charlottesville, Virginia), addressed balancing competing demands and "common sense" principles. Mark Newman, M.D. (Duke University), addressed the "curse" of being the internal candidate and strategies to reassure, focus, and rally the department. Robert Marine, A.M., B.S.N. (Pennsylvania State University, Hershey, Pennsylvania), presented principles for analyzing a department, its mission, and the degree of flux. Catherine Lineberger, M.D. (Duke University), and Jeffrey Taekman, M.D. (Duke University), debated whether residents should have Internet access in the operating room. An audience response system malfunction during the debate allowed the "con" side to buttress their position. Peter Baek, M.D. (Duke University), featured unique programs for use of personal digital assistants, and David Rosen, M.D. (West Virginia University, Morgantown, West Virginia),

included information about "peripheral brains" (notebooks), textbooks, and electronic resources for obscure syndromes.

The first afternoon consisted of presentations and workshops, a traditional format used by the SEA to encourage discussion. Clifford Swanson, D.V.M. (North Carolina State College of Veterinary Medicine, Raleigh, North Carolina), identified issues common to human and veterinary anesthesia and analyzed what anesthesia educators can learn from the animal model of training in an excellent postlunch presentation. The audiovisuals included actual equipment, and discussion was lively. Rita Patel, M.D. (University of Pittsburgh, Pittsburgh, Pennsylvania), presented comprehensive information about the six core competencies mandated by the Accreditation Council for Graduate Medical Education, reiterated in enduring form in the meeting syllabus. The afternoon concluded with a range of workshops intended to offer every attendee an attractive choice. Bret Stolp, M.D. (Duke University), presented "Screen-based Simulation" using examples from physiology and anesthesia. John Eck, M.D. (Duke University), presented "Pediatric Regional Anesthesia" with an emphasis on similarities to and differences from anesthesia for adults. This topic illustrates the wide-ranging emphasis on regional anesthesia at Duke University. Finally, Neil Prose, M.D. (Pediatric Dermatology, Duke University), presented a workshop on "Teaching Communication Skills." The president's reception and a "dine around" tour of restaurants organized personally by Duke University faculty members welcomed meeting attendees to the area and to the SEA.

The second morning featured panels on "Life-long Learning" and "Dissemination of Knowledge Beyond Our Specialty" and a short session of research. The panel on life-long learning reviewed new procedures, technology, and methods within anesthesiology. Katherine Grichnik, M.D. (Duke University), reviewed the options available to the practicing physician for updating and maintaining skills in "Continuing Medical Education." Fran D'Ercole, M.D. (Duke University), detailed a unique system of teaching and providing regional anesthesia utilizing a "block resident" in the preoperative holding area in "Training Puppies, Teaching Old Dogs New Tricks." Finally, Bosseau Murray, M.B., Ch.B. (Pennsylvania State University, State College, Pennsylvania), defined virtual reality and "haptic" (force feedback) models and reviewed data about learning using these models in "Using Virtual Reality for Epidural and Spinal Blocks." A panel on teaching learners outside of our specialty reviewed needs assessment, subject areas, and teaching methods for nonanesthesia practitioners. Brian Ginsberg, M.B., B.Ch. (Duke University), presented "Corporate Education," intended to help physicians understand the educational needs of corporate representatives about uses for their products. Scott Schartel, D.O. (Temple University, Philadelphia, Pennsylvania), presented "Nonanesthesiologists Who Learn Skills in the Operating Room," focusing on dental and oral surgery anesthesia programs. Finally, Jeffrey Schwartz, M.D. (Yale University, New Haven, Connecticut), reviewed the medical student curriculum developed by the SEA. Timothy Harwood, M.D. (Wake Forest University, Winston-Salem, North Carolina), moderated "Research Presentations and Discussion," which included 18 abstracts and posters, five of which were presented orally. A resident research competition yielded three posters, with a prize awarded to Wade Weigel, M.D. (Pennsylvania State University, State College, Pennsylvania).

The second afternoon's lively postlunch topic, "Lessons Learned from Medical Missions," included several types of missions: "Into the Wilds of Nicaragua with a First World Cardiovascular Program: Teaching Pediatric Cardiac Anesthesiology in Nicaragua 1998–2002" by Richard Ing, M.B., Ch.B. (Duke University); "Humanitarian Missions to Underdeveloped Countries: Anesthesiologists Doing Primary Care" by Richard Moon, M.D. (Duke University); and "Teaching Anesthesia in a Developing Country" by Berend Mets, M.B., Ph.D. (Columbia University, New York, New York). Each speaker provided practical information about supplies, personal health issues, and adaptation to conditions at the site of the medical mission, with extensive syllabus material.

The second afternoon included workshops at Duke University. Participants were bussed to the workshops and received an afternoon snack. Choices of workshops offered every attendee an attractive option at both afternoon sessions. "Anatomy for Regional Anesthesia: Human Fresh Tissue Lab" with David MacLeod, M.B., Ch.B., and Dara Breslin, M.B., B.Ch., both of Duke University, was presented at both the first and second sessions. This Human Fresh Tissue Laboratory provides conditions for studying and demonstrating anatomy using fresh frozen models that approximate live patients. Additional educational resources on regional anesthesia were shown. Each session offered simulator workshops, with "Simulator Script-writing" by Michael Olympio, M.D. (Wake Forest University, Winston-Salem, North Carolina), and Jeffrey Taekman, M.D. (Duke University), and "Simulator Debriefing" by Michael Olympio, M.D., and Kathleen Rosen, M.D. (West Virginia University, Morgantown, West Virginia). Each session had a nonsimulator, non–Human Fresh Tissue Laboratory option, with "Diversity" by Brenda Armstrong, M.D. (Pediatric Cardiology, Duke University), and Ira Cohen, M.D. (George Washington University, Washington, DC), and "Life Skills" by Redford Williams, M.D. (Psychiatry, Duke University). A postworkshop walking tour of the Sarah P. Duke Gardens and the campus was canceled due to much needed but poorly timed rain. Attendees were given maps with annotations of area restaurants so that they could explore on their own.

The third day concluded with panels and the SEA business meeting. Panelists in "When the Rubber Meets the Road (Finances)" identified the costs associated with postgraduate education and strategies to support the educational enterprise. Robert Anderson, M.D., M.B.A. (Surgery, Duke University), discussed "Managing the Research Enterprises as a Business: Lessons for Education," presenting an entrepreneurial approach for nonclinical endeavors. Joanne Conroy, M.D. (Atlantic Health System, Florham Park, New Jersey), presented "The Administrator's View: The Cost of Education in a Hospital Budget" from her perspective as a former academic anesthesiology chairperson and now Chief Medical Officer of a hospital system. Finally, Peter Rock, M.D., M.B.A. (University of North Carolina, Chapel Hill, North Carolina), discussed "Business Aspects of Keeping a Department in the Black," with a detailed analysis of departmental income and costs. The "Ethics" panel related ethical issues to contemporary legislative and institutional mandates for clinical practice. Angela Holder, L.L.M. (Medical Ethics and Humanities, Duke University) addressed "The Duty to Supervise (and what happens if you don't), or Who Is Doing What in the Operating Room (and what does the patient know about it)." She reviewed informed consent and the duty of care, along with breach of the duty of care and vicarious liability. Gary Loyd, M.D. (University of Louisville, Louisville, Kentucky), spoke about "HIPAA: Provisions for Privacy" and implications for education and research. Finally, Thomas Bralliar, M.D. (Cleveland Clinic, Cleveland, Ohio), discussed Medicare compliance in "Breaks, Lunches, and HCFA (now CMS)," receiving many questions from the audience. The meeting concluded with the SEA Business Meeting.

The 24th Annual Spring Meeting of the SEA gave the many new people and current members an opportunity to exchange ideas and plan collaborative projects. A new management organization provided expert support and gained important understanding of the needs of the SEA. This meeting demonstrated that the SEA, its members, and its meetings are a valuable resource for academic educators.

Kathryn P. King, M.D., Society for Education in Anesthesia and Duke University Medical Center, Durham, North Carolina. king0023@mc.duke.edu

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