YOU CAN’T EAT JELLO WITH A STRAW

By Elliott R. Haut, MD, PhD, FACS

Wayne Meredith is one of the funniest people to hear give a talk. When I saw his name as the AAST master surgeon lecturer I knew I would be there 100%. He’s a perfect example of an excellent surgeon, who brings a down-to-earth approach to speaking. His style is filled with humor, the human touch, and anecdote which draw you in. I knew he would bring his decades of experience from the bygone era when he trained in residencies in both general and cardiothoracic surgery.

His talk did not disappoint. He started with chastising AAST President Croce for such a wide open invitation allowing him to speak ‘about anything you want.” He prepared the audience with full disclosure that he would be presenting his own ideas, tips, tricks, and personal pet peeves. He started with a great recommendation for trainees prepping for their oral boards.

Residents have standard, prepared, step-by-step approach to trauma exploratory laparotomy. You know the drill, “enter the abdomen, pack all four quadrants, etc. etc.” However, when it comes to an exploratory thoracotomy, Dr. Meredith wants trainees to have a similar protocolized approach; don’t just say “I would open the chest … and look around.” He gave technical pointers aimed at trainees in the audience about nuances of
chest tube placement, but also taught more advanced maneuvers to the senior surgeons about exposure of the great vessels and trachea. Along the way, he gave credit (by name) to the surgeons who trained him and from whom he learned these surgical techniques.

My favorite quote of the talk was “you can’t eat jello with a straw.” This concept applies to removing clot from both the pericardium and the pleural spaces. He pushed the audience to move to early VATS for retained hemotorax and reconsider pericardiocentesis. Sometimes, you need to do a “real” operation (rather than place a catheter) to remove that clot.

My only minor complaint was that his assigned time slot was too short for what I wanted to learn and what Dr. Meredith had to say. He tried to cram 10 pounds of sausage into a 5 pound casing. It’s rare for me to leave a lecture wishing it had been longer and speaker spent more time and ran over, but this was one of those cases.
SESSION I: PLENARY PAPERS 1-8

By Stephanie Savage MD

The bar has been set high with the first Plenary session. Paper 1 investigated the use of pre-hospital plasma as part of a hemostatic resuscitation, using data from the COMBAT and PAMPer trials. Pre-hospital plasma conferred a survival benefit in blunt injury but not in penetrating trauma, though it did reduce utilization of blood products in both groups. Should we only give plasma to patients suffering blunt injury then? To be determined, though Dr(s) Eastridge and Jenkins raised some interesting questions in their discussion. Our second paper on self-expanding foam for intra-abdominal hemorrhage was presented by David King, MD. One cannot help but speculate on the complex emotions experienced by the trauma surgeon when encountering this novel technology upon laparotomy.

The AAST MITC AORTA study looked at the use of REBOA in pelvic hemorrhage, a logical application of an increasingly widespread technology. The paper concluded that REBOA is indicated and effective in patients with pelvic hemorrhage. However, it was noted that the patients in the REBOA group were not as ill at presentation as the open group. Castillo-Angeles et al focused on long-term outcomes following violent injuries. The authors noted physical and mental health effects of violence are an ongoing burden to our patients. This paper generated a significant interest from the audience and many questions.

The group from Louisville presented a thought-provoking animal study evaluating hemorrhagic shock and intestinal ischemia. The use of peritoneal resuscitation in cohorts, especially when combined with the use of fresh frozen plasma, was significantly protective. This adjunctive resuscitation method is intriguing and it will be fascinating to see in translation. The Memphis group has focused on the challenge of using computed tomography to diagnosis bowel injury. Identification of multiple factors on imaging, especially active arterial extravasation, bowel devascularization and fat pad injury were the most sensitive predictors. In addition, the score was given a very cool name – RAPTOR – though there was confusion amongst the audience regarding the nature of the fat pad (turns out it is a seatbelt sign).
Glass et al. evaluated NIH funding for trauma-related research. The authors identified the disproportionately low funding levels for a disease process with a disproportionate effect on life years in young patients. As Dr. Glass noted, the funding for injury-related diseases is “pitiful.” The final paper presented focused on the perennially controversial topic of splenectomy. Focusing on pediatric patients, who are not in fact little adults, found a similar disease trajectory when it comes to the spleen. Failure rates of nonoperative management were surprisingly high and again stress the importance of careful patient selection when managing the spleen non-operatively. There was some skepticism in the audience regarding the high failure rates, as this is counter to most experience. More investigation to follow.

Overall a fantastic opening session, which has set the tone for our annual meeting.
SESSION III:
FINANCING TRAUMA CARE:
INTERNATIONAL PERSPECTIVES

By Matthew Benns, MD

The Wednesday afternoon panel session featured international panelists representing the major continents of the world. This panel consisted of Felipe Vega-Rivera, MD representing Central/South America, Yasuhiro Otomo, MD, PhD representing Asia, Christine Gaardner MD, PhD representing Europe, Li Hsee MD representing Australia, and Kristan Staudenmayer, MD with the perspective from the United States.

Dr. Staudenmayer opened the session by discussing the global burden of trauma and how trauma related health care expenditures are underfunded compared to other disease processes. Dr. Gaardner then discussed the situation in Europe, showing a wide variation in overall healthcare spending per capita among the different countries. There is also a wide variety of funding sources among European countries, but over 75% of funding comes from government sources. European countries generally use the Diagnosis-Related Group (DRG) system to formulate coding and payments. Dr. Gaardner concluded her portion by highlighting issues in Europe with regard to under-developed trauma systems and pre-hospital care, as well as increasing practitioner sub-specialization.

Dr. Otomo then discussed trauma financing in Asia. He described a large heterogeneity with regard to trauma care and financing within Asia, related to a large number of countries and significant income disparities. Dr. Otomo then discussed the trauma system within Japan. Japan has a very advanced trauma system governed and funded on a national level with hospital acuity designations similar to the American system. He next focused on South Korea and highlighted how an alarming amount of traffic accident mortalities (worst of all developed countries) prompted government funding for trauma centers. These trauma centers are entirely trauma focused and practitioners do not engage in elective or even acute care surgical procedures. Dr. Otomo then moved on to the country of India. He discussed a critical lack of funding and insurance among most citizens as well as a lack of infrastructure. Taiwan was next, noted to benefit from a robust public health insurance program, though trauma specific funding is lacking. Thailand also benefits from near complete health insurance coverage for citizens, but without trauma specific funding.

The next panel presenter was Dr. Hsee to discuss New Zealand and Australia. Both countries are considered high income and have mature trauma systems and designated trauma centers. They have equivalent trauma education programs to ATLS, etc., as well as robust national quality improvement programs and research endeavors. New Zealand provides government funding for all trauma related healthcare. This funding is sourced from a variety of taxes and includes levies on automobile registrations. The funding applies to anyone injured on New Zealand soil, regardless of home citizenship. The financial burden of this coverage has increased significantly over time.
The system in Australia is more complex and involves multiple funding sources, both private and governmental. Trauma in Australia represents 7% of all healthcare costs. There has been the recent development of a National Injury Insurance Scheme that is currently being trialed in Queensland.

The final panelist was Dr. Vega-Rivera to discuss Latin America. Trauma is the 4th leading cause of death in Latin America. There is a general lack of infra-structure and resources for trauma care in Latin America, but there is heterogeneity among the various countries. He highlighted particular issues regarding traffic accident mortality and a lack of uniform reporting. Legislative efforts to decrease traffic mortality are underway in many countries of Latin America. Lack of financing and geographic barriers represent significant issues for those seeking medical care in Latin America.

Dr. Staudenmayer returned to close out the session with a discussion of Canada and the United States. Trauma is common and a significant healthcare burden for both countries. There are significant differences in funding, however, with Canada adopting national mandated insurance coverage in 1984. Importantly, coverage in Canada only applies to care delivered by physicians or in hospitals. This has implications for trauma related to pre-hospital transport and care, as it may not be provided without direct cost to the patient. The United States employs a complex system with a variety of payor sources, including a high percentage of uninsured/self-pay patients. Trauma care in the U.S. is particularly problematic related to uninsured patients, as the financial burden often shifts to safety-net hospitals. Funding for safety-net hospitals varies widely by location and effectiveness. She concluded with a call to improve trauma funding related to patient care as well as research.
SESSION IV: POSTER SESSION 1

By Rachael Callcut, MD

New to the program this year was the separation of the Poster program into two sessions, the first of occurring on the opening evening of the meeting. Night one was a warm Wednesday evening in Dallas, and the posters draw an energetic crowd. By spreading the posters across two sessions, it was much easier than in years past to enjoy each paper. For those of you planning to attend Friday’s poster session, make sure you look down the hall for the rooms with Lonestar C1-C4!! There are posters in the hall behind the exhibits and in the meeting rooms adjacent to the back of the exhibit hall.

A diverse group of distinguished Poster Professors including Fred Pieracci, Vanessa Ho, D’Andrea Joseph, and Michael Nance led the discussion across key topic areas. Thoracic, Abdominal, Education, Geriatrics, Pediatrics and Trauma systems were featured. The sessions were rich with questions. Popular topics this year included treatment of pneumothorax (Poster #1, #7, #8), aortic injury (Poster #5, #6), pelvic trauma assessment and treatment (FAST #13, REBOA #12), pediatric coagulopathy in non-accidental trauma (Poster #33), and focuses on firearm injury (Posters #25, #29, #34, #54). Several studies were also presented on prevention activities including assessment of hospital based violence intervention programs (Poster #21), elderly falls (Poster #22), and Stop the Bleed (Posters #26, #30).

The geriatric session was well attended with a number of papers focused on readmission and palliative care. Rib fracture treatment in geriatric patients was also a particularly popular topic (Posters #43, #45) and a robust discussion was generated. The geriatric session included an interesting paper on delirium in geriatric acute care surgery patients (Poster #41) demonstrating one in every 4 patients develops postoperative delirium! Poster #47 from Eastern Virginia Medical School and Poster #44 from St. Anthony Hospital highlighted the important role of palliative care in trauma care.

Overall, an excellent set of posters, data and insightful questions. Great science, networking, and fun conversation were had by all.