Suggestions have been made that general surgery is becoming obsolete. This concept is promoted mainly from large academic centers which provide general surgery resident training but also provide fellowship training, a possible conflict of interest. General surgery is vital to the needs of most of the population, particularly in rural and smaller communities and is not obsolete and cannot become obsolete.

Thoracic injury is a leading cause of death nationally and globally. Technological advances have produced dramatic changes in the methods of care available to these patients and have improved outcomes. New technologies have replaced established previous standards of diagnosis and treatment with astounding rapidity. The pace of technological innovation is increasing, and surgeons who care for the injured must evaluate, and when appropriate embrace, novel technologies into standard care protocols.

This address describes challenges, opportunities, and innovations in geriatric trauma and acute care surgery management. It also describes how mentorship in resident research education promotes professional development of surgeons and drives active membership in organizations such as the Southwestern Surgical Congress.

The ongoing PMN-mediated recruitment and activation that persists at the blood brain barrier in the hours and days following TBI can be blunted by the repeated administration of progesterone and known neuroprotective substance.

The current one-size-fits-all approach with fixed-dose enoxaparin for venous thromboembolism prophylaxis may be inappropriate in patients with obesity and traumatic injuries. Weight-based dosing of enoxaparin, 0.5 mg/kg subcutaneously twice daily, in obese trauma patients results in adequate prophylaxis, as measured by peak anti-Xa levels, and appears safe without bleeding complications.

A surgical safety checklist improves patient safety and outcomes; however, barriers to effective use include the perceived negative impact on operating room efficiency. In this study, we show that the implementation of the Surgical Safety Checklist does not negatively impact operating room efficiency and should not be considered a barrier to effective use.

A series of 1,643 patients with superficial spreading melanoma from a multicenter clinical trial was reviewed. Breslow thickness, ulceration, sentinel lymph node status, and nonsentinel lymph node status were important risk factors for survival. Lymphovascular invasion was an independent risk factor for worse disease-free and overall survival.

The purpose of this article was to compare the rate of wound complications between open and laparoscopic component techniques for the management of large ventral hernia.
This prospective cohort analysis evaluated 111 patients undergoing total or completion thyroidectomy to identify risk factors for the development of postoperative hypocalcemia. Age, body mass index, gender, tumor pathology, preoperative vitamin D, and postoperative parathyroid hormone were evaluated as potential factors. The results support postoperative parathyroid hormone as the strongest predictor of postoperative hypocalcemia.

The purpose of this study was to determine if laterality of internal jugular vein (IJV) sampling affects the accuracy of intraoperative parathyroid hormone (PTH) monitoring during parathyroidectomy for primary hyperparathyroidism. One hundred nine patients who underwent parathyroidectomy had PTH levels drawn at baseline from both the left and right IJV and after excision at 5, 10, and, in select cases, 20 minutes. There was no statistical difference in the degree of PTH decrease between the left and right IJV or the frequency at which the Miami criterion was met.

Chemotherapy is being used more frequently to treat patients with sub-centimeter node negative, triple negative breast cancer. In this small retrospective study this additional systemic treatment does not appear to impact recurrence or survival compared to surgery alone.

The authors determined rates of postoperative complications for neoadjuvant breast cancer patients on the basis of the type of breast surgery performed and the timing of reconstruction at a single institution.

A single-institution review of colonic anastomosis after damage control identified vasopressor use after the damage control procedure as a significant risk factor for anastomotic leak.

Evacuated hemothorax, a significant source of red blood cell mass at 4 hours after evacuation, was shown have no clinically significant chance between 1 and 4 hours after evacuation. Concerning, however, is that when evacuated hemothorax plasma is mixed with normal pooled plasma in-vitro, coagulation is paradoxically accelerated, rather than being slowed. This raises concerns regarding the potential safety of auto-transfusion of hemothorax.

Retrospective study comparing two prophylactic dosing regimens of enoxaparin. Both antiXa levels as well as VTE rates were compared.

The purpose of this study was to use serial TEG tracings to both identify and time a transition to a hypercoagulable state in patients with blunt abdominal solid organ injuries managed non-operatively. We identified a transition point to a hypercoagulable state at approximately 48 hours post-injury and in the absence of contraindications, pharmacoprophylaxis should be considered prior to this time for effective VTE prevention.

The incidence of postextubation oropharyngeal dysphagia in the trauma population was 42%. More important, close to half of those patients had silent aspiration. Ventilator days were the independent clinical risk factor associated with dysphagia.

The incidence of postextubation oropharyngeal dysphagia in the trauma population was 42%. More important, close to half of those patients had silent aspiration. Ventilator days were the independent clinical risk factor associated with dysphagia.
Emergent Cholecystostomy is Superior to Open Cholecystectomy in Extremely Ill Patients With Acalculous Cholecystitis: A Large Multicenter Outcome Study
Anton Simorov, Ajay Ranade, Jeremy Parcells, Abhijit Shaligram, Valerie Shoostrom, Eugene Boilesen, Matthew Goede, and Dmitry Olevnikov

Morbidity and mortality are very high for critically ill patients who develop acute acalculous cholecystitis (AAC). The aim of this study was to compare outcomes in extremely ill patients with AAC treated with percutaneous cholecystostomy (PC), laparoscopic cholecystectomy (LC), or open cholecystectomy (OC), which were also analyzed together in the LC-plus-OC (LO) group. On the basis of this experience, extremely ill patients with AAC have superior outcomes with PC.

Readmission Following Open Ventral Hernia Repair: Incidence, Indications, and Predictors
Mylan T. Nguyen, Linda T. Li, Stephanie C. Hicks, Jessica A. Davila, James W. Suliburk, Mimi Leong, Lillian S. Kao, David H. Berger, and Mike K. Liang

Open ventral hernia repair is a common procedure that results in many readmissions, particularly those for indications directly related to the surgery. Thirty-day readmission analysis does not adequately capture the true morbidity of open ventral hernia repair.

Determination of Independent Predictive Factors for Anastomotic Leak: Analysis of 682 Intestinal Anastomoses
Bryan C. Morse, Joshua P. Simpson, Yonge R. Jones, Brent L. Johnson, Brianna M. Knott, and Jennifer A. Kotrady

The recognition of factors related to intestinal anastomotic leaks is paramount to reducing the risk of these potentially catastrophic complications. This study identifies the independent risk factors of anastomotic leakage after intestinal operations based on 33 patient and operative characteristics.

Laparoscopic Versus Open Repair of Perforated Gastroduodenal Ulcer: A National Surgical Quality Improvement Program Analysis
Nickolas Byrge, Richard G. Barton, Toby M. Enniss, and Raminder Nirula

A retrospective review was conducted of the National Surgical Quality Improvement Program database emphasizing patient-centered outcomes after surgical repair of acutely perforated gastro-duodenal ulcer. Length of stay was found to be significantly shorter with laparoscopic repair.

Effect of Alcohol on Surgical Dexterity After a Night of Moderate Alcohol Intake
Irminne Van Dyken, Randolph E. Szlabick, and Robert P. Sticca

This authors evaluated the effects on surgical dexterity the morning after a night of moderate alcohol intake. Time to complete tasks was unchanged, but accuracy on some tasks was decreased the morning after alcohol intake.

Determinants of Surgical Decision Making: A National Survey
Niamey P. Wilson, Francis P. Wilson, Mark Neuman, Andrew Epstein, Richard Bell, Katrina Armstrong, and Kenric Murayama

We conducted a large, national survey of general surgeons to determine which factors influence the decision to recommend surgery across a variety of surgical disease. We found that surgical specialization is associated with less frequent recommendations to operate. We did not find that financial incentives, fee-for-service practices, or malpractice fears influence the decision to operate.

Preoperative Imaging for Early-Stage Cutaneous Melanoma: Predictors, Usage, and Utility at a Single Institution
Dana Haddad, Erin M. Garvey, Laurie Mihalik, Barbara A. Pockaj, Richard J. Gray, and Nabil Wasif

Routine preoperative imaging for early-stage primary cutaneous melanoma is not recommended by National Cancer Comprehensive Network guidelines. We investigate our institutional use to show the limited utility of imaging in staging clinically node-negative cutaneous melanomas.

Is Magnetic Resonance Imaging in Addition to a Computed Tomographic Scan Necessary to Identify Clinically Significant Cervical Spine Injuries in Obtunded Blunt Trauma Patients?
Brian M. Fisher, Steven Cowles, Jennifer R. Matulich, Bradley G. Evanson, Diana Vega, and Sharmila Dissanaike

Methods used to safely clear the cervical spine in obtunded blunt trauma patients have been controversial, and no gold standard has been recognized. Findings suggest magnetic resonance imaging detects clinically significant injuries that were missed by computed tomographic imaging.

Goal Directed Fluid Resuscitation Decreases Time for Lactate Clearance and Facilitates Early Fascial Closure in Damage Control Surgery
Mira H. Ghneim, Justin L. Regner, Daniel C. Jupiter, Francis Kang, Gwen L. Bonner, Melissa S. Bready, Richard Frazee, David Cicero, and Matthew L. Davis
The aim of this study was to determine whether resuscitation with goal-directed fluid therapy (GDT) using “dynamic” hemodynamic indices via modern pulse contour analysis devices leads to lower fluid requirements, subsequent quicker abdominal closure, and overall improved outcomes in damage-control surgery and open abdomen. GDT did not affect fluid use in open abdomen patients but did decrease the number of days to fascial closure and allowed more efficient resuscitation.

1001 Pneumomediastinum: Etiology and a Guide to Diagnosis and Treatment

Pneumomediastinum may be associated with mediastinal organ injury. The authors conclude that mediastinal organ injury in patients with pneumomediastinum is uncommon. Patients presenting with pneumomediastinum without histories of instrumentation, pleural effusion, or vomiting most commonly do not have mediastinal organ injuries.

1007 A Surgical Team With Focus on Staff Education in a Community Hospital Improves Outcomes, Costs and Patient Satisfaction
Farzaneh Banki, Kelly Ochoa, Mary E. Carrillo, Samuel S. Leake, Anthony L. Estrera, Kamal Khalil, and Hazim J. Safi

Outcomes, decreased costs and patient satisfaction are the driving forces of a successful surgical practice. Assembling a surgical team with a focus on staff education can result in an organizational change in a community hospital that appears to have a significant impact on outcomes and patient satisfaction, while decreasing costs.

1016 The General Surgery Workforce Shortage is Worse When Assessed at County Level
Ronald M. Stewart, Lillian F. Liao, Molly West, and Kenneth R. Sirinek

The absolute increase in Texas general surgeons over the past decade has not kept pace with an increase in the Texas population. The general surgery workforce deficit based on the Texas state population underestimates the local workforce shortage, particularly in nonmetropolitan areas of Texas where general surgeons decreased by more than 20% relative to the population served.

1024 Blood Transfusions in Colorectal Cancer Surgery: Incidence, Outcomes, and Predictive Factors: An American College of Surgeons National Surgical Quality Improvement Program Analysis
Wissam J. Halabi, Mehraneh D. Jafari, Vinh Q. Nguyen, Joseph C. Carmichael, Steven Mills, Alessio Pigazzi, and Michael J. Stamos

Using the ACS NSQIP database for 2005–2010, predictors and short term outcomes of receiving blood transfusions (BT) in patients undergoing major resective operations for colon and rectal cancer were investigated. LASSO algorithm for logistic regression was used to build a predictive model for BT taking into account preoperative and operative variables. BTs are associated with worse short-term outcomes, including increased mortality (odds ratio [OR], 1.78), morbidity (OR, 2.38), and LOS (+ 3.52 days).

1034 A Survey of American College of Surgery Fellows Evaluating Their Use of Antibiotic Prophylaxis in the Placement of Subcutaneously Implanted Central Venous Access Ports
Edward T. Nelson, Molly E. Gross, Mary C. Mone, Heidi J. Hansen, Edward W. Nelson, and Courtney L. Scaife

In this survey, the overwhelming majority of responding fellows of the American College of Surgeons indicated that they use perioperative antibiotic prophylaxis for central venous access port (CVAP) placement despite there being no current standard of care nor definitive evidence regarding antibiotic prophylaxis for fully implanted CVAPs.

1041 Evaluation of Noninvasive Hemoglobin Measurements in Trauma Patients
Laura J. Moore, Charles E. Wade, Laura Vincent, Jeanette Podbielski, Elizabeth Camp, Deborah del Junco, Hari Radhakrishnan, James McCarthy, Brijesh Gill, and John B. Holcomb

Reliable, accurate, noninvasive, and continuous monitoring of hemoglobin would be an important advance in the care of trauma patients. The Masimo Radical 7 device evaluated in this study holds promise, but it is not ready to be used as an initial noninvasive evaluation tool in the acute treatment of severely injured trauma patients.

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