



Eastern Association for the Surgery of Trauma

28th Annual Scientific Assembly

Scientific Papers That Should Have Changed Your Practice

Part V

Plenary Session

January 14, 2015

Disney's Contemporary Resort

Lake Buena Vista, Florida

Critical Care Surgery Papers that Should Change Your Practice

Niels D. Martin, M, FACS
University of Pennsylvania

Sedation & Analgesia

1. Brummel NE, Jackson JC, Pandharipande PP, Thompson JL, Shintani AK, Dittus RS, Gill TM, Bernard GR, Ely EW, Girard TD. Delirium in the ICU and Subsequent Long-Term Disability Among Survivors of Mechanical Ventilation. *Crit Care Med.* 2014 Feb;42(2):369-77.
2. Balas MC, Vasilevskis EE, Olsen KM, Schmid KK, Shostrom V, Cohen MZ, Peitz G, Gannon DE, Sisson J, Sullivan J, Stothert JC, Lazure J, Nuss SL, Jawa RS, Freihaut F, Ely EW, Burke WJ. Effectiveness and Safety of the Awakening and Breathing Coordination, Delirium Monitoring/Management, and Early Exercise/Mobility Bundle. *Crit Care Med.* 2014 May;42(5):1024-36.
3. Lonardo NW, Mone MC, Nirula R, Kimball EJ, Ludwig K, Zhou X, Sauer BC, Nechodom K, Teng C, Barton RG. Propofol Is Associated with Favorable Outcomes Compared with Benzodiazepines in Ventilated Intensive Care Unit Patients. *Am J Respir Crit Care Med.* 2014; 189: 1383–1394.

Resuscitation

1. Robertson CS, Hannay HJ, Yamal JM, Gopinath S, Goodman JC, Tilley BC; Epo Severe TBI Trial Investigators, Baldwin A, Rivera Lara L, Saucedo-Crespo H, Ahmed O, Sadasivan S, Ponce L, Cruz-Navarro J, Shahin H, Aisiku IP, Doshi P, Valadka A, Neipert L, Waguspack JM, Rubin ML, Benoit JS, Swank P. Effect of erythropoietin and transfusion threshold on neurological recovery after traumatic brain injury: a randomized clinical trial. *JAMA.* 2014 Jul 2;312(1):36-47. doi: 10.1001/jama.2014.6490.
2. Holst LB, Haase N, Wetterslev J, Wernerman J, Guttormsen AB, Karlsson S, Johansson PI, Aneman A, Vang ML, Winding R, Nebrich L, Nibro HL, Rasmussen BS, Lauridsen JR, Nielsen JS, Oldner A, Pettilä V, Cronhjort MB, Andersen LH, Pedersen UG, Reiter N, Wiis J, White JO, Russell L, Thornberg KJ, Hjortrup PB, Müller RG, Møller MH, Steensen M, Tjäder I, Kilsand K, Odeberg-Wernerman S, Sjøbø B, Bundgaard H, Thyø MA, Lodahl D, Mærkedahl R, Albeck C, Illum D, Kruse M, Winkel P, Perner A; TRISS Trial Group; Scandinavian Critical Care Trials Group. Lower versus higher hemoglobin threshold for transfusion in septic shock. *N Engl J Med.* 2014 Oct 9;371(15):1381-91.
3. Pinheiro de Almeida J, Vincent JL, Barbosa Gomes Galas FR, Pinto Marinho de Almeida E, Fukushima JT, Osawa EA, Bergamin F, Lee Park C, Nakamura RE, Fonseca SM, Cutait G, Inacio Alves J, Bazan M, Vieira S, Vieira Sandrini AC, Palomba H, Ribeiro U Jr, Crippa A, Dalloglio M, Del Pilar Estevez Diz M, Kalil Filho R, Costa Auler JO Jr, Rhodes A, Hajjar LA. Transfusion Requirements in Surgical Oncology Patients: A Prospective, Randomized Controlled Trial. *Anesthesiology.* 2014 Nov 14. [Epub ahead of print]
4. Lavu H, Sell NM, Carter TI, Winter JM, Maguire DP, Gratch DM, Berman RA, Feil MG, Grunwald Z, Leiby BE, Pequignot EC, Rosato EL, Yeo CJ. The HYSLAR trial: a prospective randomized controlled trial of the use of restrictive fluid regimen with 3% hypertonic saline versus lactated ringers in patients undergoing pancreaticoduodenectomy. *Ann Surg.* 2014 Sep;260(3):445-53; discussion 453-5.
5. Raghunathan K, Shaw A, Nathanson B, Stürmer T, Brookhart A, Stefan MS, Setoguchi S, Beadles C, Lindenauer PK. Association between the choice of IV crystalloid and in-hospital mortality among critically ill adults with sepsis. *Crit Care Med.* 2014 Jul;42(7):1585-91.
6. Caironi P, Tognoni G, Masson S, Fumagalli R, Pesenti A, Romero M, Fanizza C, Caspani L, Faenza S, Grasselli G, Iapichino G, Antonelli M, Parrini V, Fiore G, Latini R, Gattinoni L; ALBIOS Study Investigators. Albumin replacement in patients with severe sepsis or septic shock. *N Engl J Med.* 2014 Apr 10;370(15):1412-21.

Sepsis

1. Ferrer R, Martin-Loeches I, Phillips G, Osborn TM, Townsend S, Dellinger RP, Artigas A, Schorr C, Levy MM. Empiric antibiotic treatment reduces mortality in severe sepsis and septic shock from the first hour: results from a guideline-based performance improvement program. *Crit Care Med.* 2014 Aug;42(8):1749-55.
2. Leligidowicz A, Dodek PM, Norena M, Wong H, Kumar A, Kumar A; Co-operative antimicrobial Therapy of Septic Shock Database Research Group. Association between source of infection and hospital mortality in patients who have septic shock. *Am J Respir Crit Care Med.* 2014 May 15;189(10):1204-13.

Critical Care Outcomes & Metrics (Sepsis)

1. Kaukonen KM, Bailey M, Suzuki S, Pilcher D, Bellomo R. Mortality related to sepsis and septic shock among critically ill patients in Australia and New Zealand, 2000-2012. *JAMA.* 2014 Apr 2;311(13):1308-16.
2. Prescott HC¹, Langa KM, Liu V, Escobar GJ, Iwashyna TJ. Increased 1-year healthcare use in survivors of severe sepsis. *Am J Respir Crit Care Med.* 2014 Jul 1;190(1):62-9.
3. Gaieski DF, Edwards JM, Kallan MJ, Mikkelsen ME, Goyal M, Carr BG. The relationship between hospital volume and mortality in severe sepsis. *Am J Respir Crit Care Med.* 2014 Sep 15;190(6):665-74.
4. Brown SE, Ratcliffe SJ, Halpern SD. An empirical comparison of key statistical attributes among potential ICU quality indicators. *Crit Care Med.* 2014 Aug;42(8):1821-31.

Emergency General Surgery Papers that Should Change Your Practice

Martin D. Zielinski, MD, FACS

Mayo Clinic

1. Shafi S, Aboutanos M, Brown CV, Ciesla D, Cohen MJ, Crandall ML, Inaba K, Miller PR, Mowery NT; American Association for the Surgery of Trauma Committee on Patient Assessment and Outcomes. Measuring anatomic severity of disease in emergency general surgery. *J Trauma Acute Care Surg.* 2014 Mar;76(3):884-7.
2. Crandall ML, Agarwal S, Muskat P, Ross S, Savage S, Schuster K, Tominaga GT, Shafi S; American Association for the Surgery of Trauma Committee on Patient Assessment and Outcomes. Application of a uniform anatomic grading system to measure disease severity in eight emergency general surgical illnesses. *J Trauma Acute Care Surgery.* 2014 Nov; 77(5):705-708.
3. Ferrada P, Velopulos CG, Sultan S, Haut ER, Johnson E, Praba-Egge A, Enniss T, Dorion H, Martin ND, Bosarge P, Rushing A, Duane TM. Timing and type of surgical treatment of Clostridium difficile-associated disease: a practice management guideline from the Eastern Association for the Surgery of Trauma. *J Trauma Acute Care Surg.* 2014 Jun;76(6):1484-93.
4. Keenan JE, Turley RS, McCoy CC, Migaly J, Shapiro ML, Scarborough JE. Trials of nonoperative management exceeding 3 days are associated with increased morbidity in patients undergoing surgery for uncomplicated adhesive small bowel obstruction. *J Trauma Acute Care Surg.* 2014 Jun;76(6):1367-72.
5. Goussous N, Eiken PW, Bannon MP, Zielinski MD. Enhancement of a small bowel obstruction model using the gastrografin® challenge test. *J Gastrointest Surg.* 2013 Jan;17(1):110-6; discussion p.116-7.
6. Smith JW, Neal Garrison R, Matheson PJ, Harbrecht BG, Bennis MV, Franklin GA, Miller KR, Bozeman MC, David Richardson J. Adjunctive treatment of abdominal catastrophes and sepsis with direct peritoneal resuscitation: indications for use in acute care surgery. *J Trauma Acute Care Surg.* 2014 Sep;77(3):393-8; discussion 398-9.
7. Kennedy GD, Tevis SE, Kent KC. Is there a relationship between patient satisfaction and favorable outcomes? *Ann Surg.* 2014 Oct;260(4):592-8; discussion 598-600.
8. de Mestral C, Rotstein OD, Laupacis A, Hoch JS, Zagorski B, Alali AS, Nathens AB. Comparative operative outcomes of early and delayed cholecystectomy for acute cholecystitis: a population-based propensity score analysis. *Ann Surg.* 2014 Jan;259(1):10-5.
9. Biondo S, Golda T, Kreisler E, Espin E, Vallribera F, Oteiza F, Codina-Cazador A, Pujadas M, Flor B. Outpatient versus hospitalization management for uncomplicated diverticulitis: a prospective, multicenter randomized clinical trial (DIVER Trial). *Ann Surg.* 2014 Jan;259(1):38-44.
10. Devereaux PJ, Mrkobrada M, Sessler DI, et al. for the POISE-2 Investigators. Aspirin in Patients Undergoing Noncardiac Surgery. *N Engl J Med* 2014; 370:1494-1503.

Trauma Surgery Papers that Should Change Your Practice

David King, MD, FACS

Massachusetts General Hospital

1. Wagenaar AE, Burlew CC, Biffi WL, Beauchamp KM, Pieracci FM, Stovall RT, Jurkovich GJ, Moore EE. Early repeat imaging is not warranted for high-grade blunt cerebrovascular injuries. *J Trauma Acute Care Surg.* 2014 Oct;77(4):540-5; quiz 650.
2. Pommerening MJ, DuBose JJ, Zielinski MD, Phelan HA, Scalea TM, Inaba K, Velmahos GC, Whelan JF, Wade CE, Holcomb JB, Cotton BA; AAST Open Abdomen Study Group. Time to first take-back operation predicts successful primary fascial closure in patients undergoing damage control laparotomy. *Surgery.* 2014 Aug;156(2):431-8.
3. Moore HB, Moore EE, Gonzalez E, Chapman MP, Chin TL, Silliman CC, Banerjee A, Sauaia A. Hyperfibrinolysis, physiologic fibrinolysis, and fibrinolysis shutdown: The spectrum of postinjury fibrinolysis and relevance to antifibrinolytic therapy. *J Trauma Acute Care Surg.* 2014 Dec;77(6):811-7.
4. Rodriguez L, Jung HS, Goulet JA, Cicalo A, Machado-Aranda DA, Napolitano LM. Evidence-based protocol for prophylactic antibiotics in open fractures: improved antibiotic stewardship with no increase in infection rates. *J Trauma Acute Care Surg.* 2014 Sep;77(3):400-7; discussion 407-8; quiz 524.
5. Robertson CS, Hannay HJ, Yamal JM, Gopinath S, Goodman JC, Tilley BC; Epo Severe TBI Trial Investigators, Baldwin A, Rivera Lara L, Saucedo-Crespo H, Ahmed O, Sadasivan S, Ponce L, Cruz-Navarro J, Shahin H, Aisiku IP, Doshi P, Valadka A, Neipert L, Waguspack JM, Rubin ML, Benoit JS, Swank P. Effect of erythropoietin and transfusion threshold on neurological recovery after traumatic brain injury: a randomized clinical trial. *JAMA.* 2014 Jul 2;312(1):36-47.
6. Paulus EM, Fabian TC, Savage SA, Zarzaur BL, Botta V, Dutton W, Croce MA. Blunt cerebrovascular injury screening with 64-channel multidetector computed tomography: more slices finally cut it. *J Trauma Acute Care Surg.* 2014 Feb;76(2):279-83; discussion 284-5.
7. Scott WW, Sharp S, Figueroa SA, Eastman AL, Hatchette CV, Madden CJ, Rickert KL. Clinical and radiographic outcomes following traumatic Grade 3 and 4 carotid artery injuries: a 10-year retrospective analysis from a Level 1 trauma center. The Parkland Carotid and Vertebral Artery Injury Survey. *J Neurosurg.* 2014 Dec 19:1-6.
8. Majeed A, Hwang HG, Connolly SJ, Eikelboom JW, Ezekowitz MD, Wallentin L, Brueckmann M, Fraessdorf M, Yusuf S, Schulman S. Management and outcomes of major bleeding during treatment with dabigatran or warfarin. *Circulation.* 2013 Nov 19;128(21):2325-32.