($p = 0.19$), and time of antibiotic administration prior to incision ($p = 0.74$) were not found to be significant. Multivariate analyses using stepwise logistic regression found male gender (OR 2.01, 95% CI 1.05, 4.10), smoking (OR 2.69, 1.15, 6.26), elevated BUN (OR 1.04, 95% CI 1.02, 1.06), and length of operation time (OR 1.001, 95% CI 1.000, 1.003) to be independent predictors for postoperative complications. **Conclusions:** Emergency general surgery patients who develop postoperative complications are more likely to be male, smokers, have a higher preoperative BUN, and experience longer operative times. Preoperative fluid resuscitation to address elevated BUN and experienced surgical teams to decrease operative times are potential targets to improve outcomes in emergency general surgery patients.

26.19. Intraperitoneal Use of Local Anesthetic Agents in Open Abdominal Surgery - A Systematic Review and Meta-Analysis of Randomized Controlled Trials. A. A. Kahokehr, T. Sammour, A. G. Hill; University of Auckland, Auckland, New Zealand

Introduction: Local anesthetics are important peri-operative drugs and have been used in many different anatomical regions. Apart from nerve modulation these drugs are of further interest as they have anti-inflammatory, anti-bacterial and other "non-anaesthetic" properties. The use of intraperitoneal local anesthetic (IPLA) was first reported in 1950; however this technique has been neglected for routine use in open abdominal surgery due to highly effective post operative analgesia methods such as thoracic epidurals. The aim of this systematic review is to appraise the clinical effects of intraperitoneal local anesthetic in open abdominal surgery for metachronous outcomes such as metabolic and gastrointestinal function. **Methods:** A Comprehensive search was conducted independently without language restriction. Studies were identified from the following databases from inception to August 2009: Cochrane Central Register of Controlled Trials (CENTRAL/CCTR), Cochrane Library, Medline, PubMed, EMBASE and CINHAL. Relevant meeting abstracts and reference lists were manually searched. Data analysis was performed using Review Manager Version 5.0 software. Quality of randomised controlled trials was evaluated using the Jadad criteria. Post-operative metabolic outcomes of randomised controlled trials comparing IPLA versus no IPLA or placebo solution were used for meta-analysis. **Results:** 12 reports were identified including 8 randomised trials. There was blunting of postoperative hyperglycaemia as shown by meta-analysis of randomised trials. There was no difference in post-operative cortisol response. In the absence of epidural analgesia there appeared to be reduced pain and opioid use. Return of bowel function appeared to be enhanced, although meta-analysis was not possible. **Conclusion:** The use of IPLA appears to be beneficial and could be used to enhance recovery after abdominal surgery. Trials are needed to evaluate this method of "visceral blockade" further in the presence of optimised "somatic blockade" using epidurals after abdominal surgery.

26.20. Neuraxial Anesthesia, Low-Molecular-Weight Heparin and Major Abdominal Surgery Is Safe and Feasible. B. Protyniak,[1] M. C. Meadows,[2] R. S. Chamberlain[2]; [1]St. George's University School of Medicine, St. George's, Grenada; [2]Saint Barnabas Medical Center, Livingston, NJ

Background: Venous thromboembolic (VTE) disease affects more than 2 million patients annually, and is a complication of up to10-12% of all surgical major surgical procedures. The 9th Consensus recommendations of the American College of Chest Physicians has established global guidelines for prophylaxis of patients undergoing major surgery, but whether these are safe and feasible in all situations and patient groups is controversial. The use of chemical VTE prophylaxis in patients receiving neuraxial anesthesia (i.e., epidural and spinal) is once such area. In addition, whether and when to anticoagulate patients undergoing major hepatectomy or pancreatectomy is similarly unclear. We sought to evaluate the safety and feasibility of chemical VTE prophylaxis in a prospective group of patients underoing major hepatobilary procedures under a combination of epidural and general anesthesia. **Methods:** A comprehensive prospective database of all patients undergoing major foregut surgery from 2004-2008 was maintained and analyzed. All operations were performed by a single surgeon. All procedures were performed under general anesthesia. Epidural catheters were placed pre-operatively and used for post-operative pain control for three days in all patients. Factors evaluated included age, ethnicity, sex, duration of epidural placement, complications of epidural placement and post-operative management, and VTE events. The first dose of low-molecular-weight heparin (LMWH) (enoxaparin 40 mg SQ daily) was administered no sooner than 12 hours after the surgical procedure and administered last at 9AM the day prior to catheter removal. All patients received mechanical compression devices as well. **Results:** A total of 266 patients formed the study group. The mean age was 61 years (range, 19-95), 138 women (51.9%) and 128 (48.1%) men. One-hundred and eighty-seven patients were Caucasian (70.3%), 41 Black (15.4%), 17 Hispanic (6.4%), 14 Asian/Pacific (5.3%), and 7 other (2.6%). All epidural catheters were removed on the third post-operative day. No complications were reported in either the peri- or post-operative stages in regards to the epidural catheter. **Conclusions:** Concomitant epidural catheter placement and anticoagulation with LMWH is safe and feasible in patients undergoing major abdominal surgery, including patients undergoing major hepatic resection. The advantages of epidural anesthesia are not limited to optimal post-operative pain control, but also include reduced myocardial oxygen consumption, decreased stress response, improved intra-operative hemodynamic stability, improved diaphragmatic function, and reduced post-operative ileus. Established guidelines for VTE prophylaxis and LMWH administration in the setting of neuraxial anesthesia are well established and applicable to this unique patient population.

EDUCATION 3: RESIDENT CORE COMPETENCIES

27.1. A Novel Educational Curriculum to Improve Absite Scores in Surgical Training. P. Krecioch,[1] A. Brooks,[1] O. Devon,[1] A. Poor,[1] W. Meyers,[1] D. Stein,[1] A. Castellanos,[1] J. Giering,[2] M. Rizzuto[2]; [1]Drexel University College of Medicine, Philadelphia, PA; [2]Drexel University School of Education, Philadelphia, PA

Introduction: The American Board of Surgery In-Service Training Examination (ABSITE) provides residency programs an annual assessment of their residents' progress. Scores on this examination have been correlated to later passing the ABS qualifying examination (QE). After evaluating the approaches used by other institutions, we developed our own multi-modal educational approach with the help of Drexel's School of Education. We wanted to determine whether our newly devised curriculum improved resident ABSITE scores. **Methods:** In this prospective study we looked at ABSITE scores for PGY 3-5 from 2008, grouped the questions into 19 categories, picked 7 categories where our residents performed poorly, and created an intense 7 week curriculum. The categories chosen in our curriculum were shock/trauma, coagulation, metabolism, acid base, cancer, transplant, and endocrine. To reinforce the topics of the week, our lectures such as grand rounds, basic science, and chairman's conferences corresponded with the weekly topic. Residents had reading assignments to prepare for each topic and a pre-test prior to any presentations. To assist residents on away rotations the lectures and outlines for each topic were available online in streaming video and available for podcast download. We compared the mean percentage of correct questions from each category for all of the residents in 2008 and 2009 using an unpaired t-test. There were 18 residents who took the ABSITE in both 2008 and 2009. To compare the year