DEPARTMENT OF ANESTHESIA AND PERIOPERATIVE MEDICINE



Special Points of Interest

- Welcome New Resident Interns
- ERAS Pancreatic Program at ART
- Cardiac Dissection with Echocardiography
 Correlation

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SLEEPY TIMES

VOLUME 9, ISSUE 4 APRIL 2015

MESSAGE FROM THE CHAIRMAN:

-SCOTT T. REEVES, MD, MBA

Don't Live for the Dot

As we enter the month of April, many of us will be celebrating Easter and Passover. Charleston's azaleas will be in full bloom signifying the beginning of spring. All of these events serve as a reminder that this time of year is associated with renewal.

Over the past several years, the department has made significant investments in our educational offerings, which have included an expansion of our lecture series, the creation of online education and numerous workshops; The latest was our cardiac wet lab dissection in March. On the surface, these departmental changes may on the surface seem subtle, but they have the potential to be huge. Through them, it is my desire for the department to gain a national reputation as an educational leader in our specialty.

Recently, my pastor challenged our congregation "not to live for the dot" (the here and now).

Instead, the department and each of us should be "living for the line" (the future).

It is human nature to live for the next event (the dot) such as an upcoming vacation or meeting, future sporting event, graduation, etc. It is hard to strategically plan for the future. What do we want the department to be like in the next 5, 10, or 20 years? As individuals, how do we prepare for our children's college education, weddings, and our retirement? How do we all volunteer our substantial individual talents to have lasting significance?

As I close this message, I would encourage us all to seriously consider and engage now to help shape the direction of the line both as a department and individuals.







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WELCOME NEW 2015-2016 INTERN CLASS

I am very pleased to inform you that we have filled all 15 spots in the match this year! This is a testament to all of your hard work and dedication to make our program stand out among the field. Thanks again to all residents, faculty, and support staff that participated in this year's interview season. And a special thanks to our fantastic program coordinators, Dawn and Kelly. This wouldn't be possible without you!

Welcome to the Department: 2015-2016 Intern Class



Cip Ayala MUSC



Lee Cumbee MUSC



Kirsten Dahl UT San Antonio



Brooks Duff Medical College of Georgia



Clay Foret Virginia Commonwealth



Gregory Foster Medical College of Georgia



Alex Golovlev University of Tennessee



Geoffrey Kilgore University of South Carolina



Ali Lataille MUSC



Anthony Lehn Medical College of Georgia



Sam Luebbert University of Virginia



lan Osburn University of Southern Florida



Hannah Purcell University of South Carolina



Anne Wanaselja Indiana University



Sherry Zhou MUSC

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CARDIAC DISSECTION WITH ECHOCARDIOGRAPHY CORRELATION BY: JAKE ABERNATHY, MD, MPH

On February 28, the Department welcomed Dr. Douglas Shook, Assistant Professor and Cardiothoracic Anesthesiology Fellowship Program Director at Harvard Medical School and Brigham and Women's Hospital, for a cardiac dissection and echocardiography correlation. Anesthesiology attendings, CT anesthesiology fellows, residents and pediatric cardiology fellows participated in an outstanding three-hour event where Dr. Shook walked us through cardiac anatomy. Through dissection and visual inspection, the obscure anatomic relationships of VSDs, ASDs, and coronary anatomy were brought to life. There were many "ah, now I get it" heard throughout the audience. Translating these anatomic relationships into an echocardiographic image remains the most impactful part of this exercise. It appeared all who participated learned a great deal and will be better clinicians because of it. Special thanks go to Allie Poole who heroically coordinated the event and is proud to say has now ordered more pig hearts for

overnight delivery than anyone in South Carolina. I think even my kids

learned something.



















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ERAS PANCREATIC PROGRAM AT ASHLEY RIVER TOWER BY JULIE MCSWAIN, MD, MPH

In October 2014, ART rolled out a comprehensive Enhanced Recovery After Surgery (ERAS) program for patients receiving pancreatic surgery. The initial idea for ERAS was pioneered in the late 1990s, and since then ERAS programs have been in practice at multiple hospital systems throughout the United States and Europe. Our enhanced recovery program at ART encompasses preoperative, intraoperative, and postoperative protocols that were developed by a team of anesthesiologists, surgeons, and nurses to best fit the needs of our pancreatic patients.

Components of the preoperative piece include preoperative counseling (nurse visit, booklet describing the use of ERAS and what to expect during their hospital stay), avoidance of preoperative bowel preps, and a preoperative 5- day load of a carbohydrate rich beverage (currently Clearfast—yes, you can buy it on Amazon for \$19.95) to minimize pre-operative fasting states. The intraoperative protocol consists of nine major points. However, the biggest changes to our prior perioperative practice include: a change in our preoperative fasting guidelines to allow patients to drink a carb-rich clear beverage (IMPACT) 3 hours prior to scheduled time, the aggressive use of regional analgesia (mainly early use of epidural analgesia with both local anesthetics +/- bolus opioids intraoperatively), and the use of the Flo-trac device to monitor stroke volume variation as well as an algorithm for hypotensive events to help guide intraoperative goal directed therapy. Postoperative components include avoidance and/or early removal of bladder catheters and NG tubes, early ambulation, early use of incentive spirometry, and avoidance of opioids (yes, that means limited use of a hydromorphone PCA!). Together, all of these individual points can help patients recover bowel function sooner after surgery, which can ultimately lead to quicker surgical recovery and discharge from the hospital.

Recent analysis of our own patient data has shown a mean decrease in hospital LOS by 2.44 days and an average cost savings of \$5,161.00 dollars per patient.

Length of Stay (LOS):

eras	Method	Mean	95% CL Mean		Std Dev	95% CL	Std Dev
0		9.1728	8.3727	9.9728	7.0534	6.5313	7.6668
1		6.7273	5.8177	7.6368	2.5651	2.0628	3.3928
Diff (1-2)	Pooled	2.4455	0.00993	4.8810	6.7520	6.2751	7.3078
Diff (1-2)	Satterthwaite	2.4455	1.2474	3.6436			

0=historical patients (prior to ERAS), I= ERAS patients starting 10/1/2014

Total Cost:

	Method	Mean	95% CL Mean		Std Dev	95%CL Std Dev	
eras							
0		\$27,402.00	\$2,5379.90	\$29,424.10	\$17,827.30	\$16,507.80	\$19,377.80
1		\$22,240.60	\$1,9098.80	\$25,382.30	\$8,860.30	\$7,125.40	\$11,719.50
Diff (1-2)	Pooled	\$5,161.40	\$-1,031.40	\$11,354.30	\$17,168.20	\$15,955.80	\$18,581.50
Diff (1-2)	Satterthwaite	\$5,161.40	\$1,460.50	\$8,862.40			

0=historical patients (prior to ERAS), I= ERAS patients starting 10/1/2014

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ERAS PANCREATIC PROGRAM AT ASHLEY RIVER TOWER CONTINUED . . . BY JULIE MCSWAIN

While we have implemented an intraoperative protocol for our colorectal patients that is similar to the ongoing protocol for the pancreatic patients, we are looking forward to implementation of both the preoperative and postoperative pieces by the surgical division in the near future. ERAS is definitely an organized team approach that not only improves patient care and recovery but can also decrease overall hospital costs; a win-win for everybody!

ERAS FOR HEPATO-PANCREATIC/BILIARY SURGERY: PERIOPERATIVE CARE UNDER ANESTHESIA GUIDANCE

- 1. Preoperative fasting: Encourage clear carb-rich beverage prior to midnight day before surgery and 2-4 hours prior to scheduled surgery time. Type and amount of beverage will be clearly defined by surgical service in preoperative visit (currently Clearfast). Otherwise, standard NPO guidelines per MUSC protocol apply. *ERAS* encourages no bowel prep prior to surgery, but please record in the preoperative evaluation whether patient has received bowel prep prior to surgery.
- **2. Preanesthetic Meds**: Short acting premedication (midazolam/fentanyl) may be given the morning of surgery prior to induction of anesthesia at the discretion of the anesthesia provider, especially for preoperative procedures (e.g., epidural insertion). Patients may continue to take home opioids/benzodiazepines prior to surgery if they routinely take them on a scheduled basis at home.
- **3. Antibiotics**: Cefazolin/Metronidazole (or approved alternatives if allergic) for hepato-pancreatic-biliary procedures administered IV prior to incision per institutional guidelines. Cefazolin 2 grams for patients < 120kg, 3 grams for patients> 120kg. Metronidazole 500mg for all patients. If patient has a major/anaphylactic allergy to penicillin, 2 grams Aztreonam and 900mg Clindamycin are acceptable alternatives. Specific MRSA coverage is not recommended at this time.
- **4. Intraoperative Anesthetic:** As there is no definitive evidence for optimal anesthetic method, intraoperative anesthetic technique is at the discretion of the anesthesia provider.
- **5. Regional analgesia**: A site-specific thoracic epidural should be offered to all patients undergoing an open hepato-pancreatic-biliary procedure. Bupivacaine local anesthetic infusion should be started as soon as possible intraoperatively if patient hemodynamics are stable. Patients may receive a one-time intraoperative dose of epidural opioid (fentanyl, hydromorphone, morphine) at the discretion of the anesthesia team. However, all perioperative infusions will be local anesthetic only.
- **6. PONV prevention:** Unless contraindicated by patient allergies, all ERAS patients should receive 4 mg of decadron and 4 mg of ondansetron intraoperatively for PONV prophylaxis. Additional medical prophylaxis (droperidol, Phenergan, TIVA with propofol) is at the discretion of the anesthesia provider and should be based on prior patient experience with PONV.
- **7. Intraoperative normothermia:** At least 1 forced air warmer should be placed on the patient (typically lower body warmer for upper abdominal surgery); esophageal or bladder temperature monitoring should be used for every patient intraoperatively. Additional forced air warmers and fluid warmers should be used to maintain intraoperative normothermia as needed.

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ERAS FOR HEPATO-PANCREATIC/BILIARY SURGERY: PERIOPERATIVE CARE UNDER ANESTHESIA GUIDANCE

8. Perioperative Fluid Management: Aim for intraoperative normovolemia; Use flotrac with arterial line or finger cuff if no arterial line is present to monitor stroke volume variation (SVV) for intraoperative goal-directed therapy. *PLEASE NOTE*: No patient should receive arterial line for sole purpose of goal-directed therapy.

*GDT: 1000ml crystalloid infusion (either LR or plasmalyte) to be started in holding area and then infused throughout induction until finished. Then run crystalloid infusion at 5ml/kg/hr for open cases (max 500ml/hr), 3ml/kg/hr for laparoscopic cases (max 250ml/hr) via infusion pump. Record initial stroke volume once device is attached to patient. If the patient becomes hypotensive during procedure (MAP 20% or more below baseline) and SVV > 12, give 250ml of crystalloid bolus over 10-15min and reassess. If SVV decreases but patient remains hypotensive, repeat bolus. If patient continues to be hypotensive after 2 or more fluid boluses with a cardiac index (CI) less than 2.5, consider adding vasopressor. At end of case during surgical closure, reduce crystalloid infusion to 2ml/kg/hr before transfer to PACU.

*based on recent ERAS publication Anes Analg May 2014.

9. NGT placement in perioperative period: Discuss with surgeon at timeout, avoid placement if possible.

References:

Lassen K, et al. Consensus review of optimal perioperative care in colorectal surgery. Arch Surg 2009; 144(10); 961-969. Spanjersberg WR, et al. Fast track surgery vs conventional recovery strategies for colorectal surgery (review). Cochrane Database.

Ahmed J, et al. Compliance with enhanced recovery programmes in elective colorectal surgery. Br J Surg 2010; 97: 754-8. Ramirez JM, et al. Enhanced recovery in colorectal surgery: a multicenter study. BMC Surgery 2011; 11(9): 442-50. Miller, TE, et al. Reduced length of hospital stay in colorectal surgery after implementation of enhanced recovery protocol. Anes Analg 2014; 118(5): 1052-61.

DOCTORS' DAY CELEBRATION: MARCH 30, 2015

Dear MUSC faculty,

As chairman of the Department of Anesthesia and Perioperative Medicine and President of MUSC Physicians, it is my pleasure to thank each of you for your contributions to patient care this past year. We all hear about Doctors' Day but relatively few people know its origin. Ether was first used for surgical anesthesia by Crawford Long on March 30, 1842 to remove a tumor from the neck of a patient in Jefferson, Georgia. In 1933, the Auxiliary to the Barrow County Medical Society declared that March 30, the day that famous Georgian, Dr. Crawford W. Long, first used ether anesthesia in surgery, be adopted as Doctors' Day. Today marks the 173rd anniversary of that historic event. The Crawford Long Museum in Jefferson, GA is just a few minutes off I-85 about an hour north of Atlanta on the way toward Greenville, and well worth a visit.

The celebration of Doctors' Day is a testament to the discoveries made by physicians for the betterment of humanity. As leaders, we do not thank you enough for the daily compassionate care you give to our patients.

Sincerely,

Scott T. Reeves, MD, MBA, FACC, FASE

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HISTORY OF ANESTHESIOLOGY AND MEDICINE: A BRIEF COLLECTION OF "RECOLLECTIONS" FROM DR. LAURIE BROWN

In this installment, Dr Brown discuss the early days at the Medical College Hospital and the joy experienced when the "New Hospital" was completed. It is very similar to the excitement we are all having as we plan for a new Children's Hospital and Women's Pavilion.

The Medical College Hospital

When I began Medical college in 1949, the entire college consisted of a group of building bordering on Calhoun Street, Lucas Street, and Mill Street (now Sabin Street, named in honor of Dr. Albert Sabin, a distinguished professor who developed the oral polio vaccine) and the complex extended about half way to Ashley Avenue. The buildings were around a "quadrangle" which was a large area consisting of some heating machinery (no air conditioning, of course) and one house, the "Smith House," Smith being the janitorial staff of the Medical College. He lived with his wife in this house along with a quadrangle full of little children. Old Roper Hospital was directly across from Lucas Street from the Medical College. Between the Mill Street side of the Medical College and Porter Military Academy was a group of houses which would today be called a slum area. Not only were there houses, but also tidal water and extremely poor drainage from the area. Looking out of the windows from the Pharmacology classroom, we could see the area being razed in preparation for the building of the Medical College Hospital. It was interesting to watch the pilings being driving from the pile driver, the pilings seeming going through absolutely nothing. Nevertheless, these pilings were driven into a layer or marl which holds onto anything almost like cement, maybe even firmer.

The hospital was completed and dedication ceremonies held on May 10, 1955. Governor George Bell Timmerman gave the main address. The ceremony was held on the front of the hospital, which faced Doughty Street where now the newer Administration Building stands. I served six months of my final year of residency in the new hospital.

Dr. John D. (J.D.) Ashmore, a classmate and surgery resident, and I had explored most of the hospital from the time we could get in and the construction people would let us look around. Then on July 1, 1955, I moved into an office adjoining the office of Dr. John Brown on the fourth floor of the new hospital. The Department of Anesthesiology remained in this location until 1987, and in 1990 the area was converted into a waiting area for "same day surgery." The next six months of my residency was in the Medical College Hospital. There were few staff members in the hospital due to the fact that they were all trying to make a living in private practice in their own offices and at Roper Hospital.

This was the most interesting part of my residency training. Not only did I anesthetize the patients who were there. working along with a couple of junior residents which were with me at times, but I helped to order instruments and supplies to equip the new operating rooms and other parts of the hospital. It was very difficult to get surgeons who had enough time or interest to give the operating room supervisor lists of instruments to be ordered. Dr. William M. McCord had obtained a pickup truck full of surgical instruments, field anesthesia machines which would deliver nitrous oxide, oxygen, and oxygen tanks which were suitable for resuscitation on the battlefield and various other supplies and equipment. These were all surplus supplies which were obtained from the Navy. Many of these instruments could be used and I made use of much of the old resuscitation type equipment for a few months. As with everything old which we had, it was soon replaced by newer equipment, although much of the newer equipment was of less use than the old. During this time, I knew every employee of the hospital from the officers of the Administration to all of the maintenance people. This was a tremendous help in getting things done which were necessary to have the hospital begin functioning properly. (Some years later I discovered that the first Medical College Hospital Administrator, Glenn Searcy, who had come from Oklahoma, was a first cousin of my wife). Dr. John Brown was still busy with private patients entering the new Medical College Hospital, but he was always available to give me help and advice on everything which I needed. Fortunately, he had insisted on getting some new anesthesia machines because the company which was furnishing equipment for the hospital wanted to give us at that time "antiquated" machines. Old, outdated anesthesia machines in a new hospital with sparkling up-to-date operating rooms and anesthesia "induction rooms?" That was not to be. One of those antiquated machines is in our Departmental museum.

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HISTORY OF ANESTHESIOLOGY AND MEDICINE: A BRIEF COLLECTION OF "RECOLLECTIONS" FROM DR. LAURIE BROWN

A Few Interesting Notes (In A New Hospital)

It was impressive to have a new hospital which had a thermos tank for liquid oxygen which furnished oxygen to the operating rooms and essentially every room in the hospital. Outlets were in each room. The tank sat in the parking lot near Sabin Street, now the site of the Medical University Children's Hospital. There was some excitement one day while I was administering anesthesia when some machinery in the parking lot dug up and severed the line leading from the liquid oxygen tank to the hospital. We utilized small "E" cylinder oxygen for some time.

Dr. John C. Hawk, Jr., Surgeon and head of the Cancer Clinic, insisted that all his post-op patients have inhalations of carbon dioxide/oxygen ("carbogen") mixture to simulate respiration. I was usually the one called to administer this potion, and was usually the one who got the blame when it wasn't done. Another use for carbon dioxide at that time was for shock treatment in psychiatric patients. We would let the patient breathe a 30% carbon dioxide mixture until a convulsion is ensued. Fortunately, this technique was outgrown after a short time.

Once not long after we began operating in our new hospital, the very apprehensive pregnant wife of a Radiologist, Dr. Rod Foss, had severe phlebitis and much clots was removed from her leg by Dr. Hawk in the operating room under local anesthesia. The next day, I was called to the floor by Dr. Vince Moseley who was, I believe, Chief of Staff, because Mrs. Foss was in severe respiratory difficulty due to a sudden pulmonary embolus. She was essentially dead, and Dr. Foss asked that we try to resuscitate her. (External cardiac massage was unknown at that time and we had not long been attempting internal cardiac resuscitation). The chest was opened by a surgery resident and I easily managed her respiration with the hand resuscitator which is now in our Anesthesia Department Museum. She did not survive this episode and, as I recall, she was the first patient to die in the new hospital.

Julie Clark, Dr. Lynch's secretary, (Dr. Lynch was Dean, then President and later Chancellor of the Medical College) underwent one of the first, if not the first, major operation in our new operating rooms, a radical mastectomy done by Dr. John C. Hawk, Jr. To the best of my knowledge, there was never a recurrence of the tumor.

A few notes in addition to Dr. John Brown's notes concerning Dr. Fred Kredel and his ruptured aortic aneurysm. I was almost finished setting up the heart room for a case which Dr. Brown would be doing, with me as assistant, when one of the nurses called and told me to please bring an oxygen mask up because Dr. Kredel wasn't getting enough oxygen with his nasal cannula. This was the first that I had known that Dr. Kredel was in the hospital. I went up immediately and found Dr. Fredel with a room full of staff doctors, and house staff. He was extremely pale, sweating and essentially gasping for air. I thought that he had had a pulmonary embolus. When asked about the pain, he said that his abdomen was hurting. I was listening to his chest and noticed that the left lower quadrant of his abdomen was swollen and I palpated a large hard mass. I asked Dr. Edward Parker who was in the room with Dr. Kredel about the mass and Dr. Parker said that it had not been there during examination only a few minutes earlier. It was obvious that this mass was a ruptured abdominal aortic aneurysm. Because I knew everyone in the room, I was able to "send" various member of the house staff and students to do various jobs — such as obtaining blood donors, obtaining blood from the bank, notifying the operating room, bringing a stretcher, etc. — and within a few minutes, Dr. Kredel was in the operating room which was already set up for the open heart case. Dr. John Brown intubated Dr. Kredel and we took him safely through a resection and graft of the aneurysm. Dr. Moseley requested Dr. Hawk to scrub and assist with Dr. Parker and, of course it was alright with Dr. Parker. I recall Dr. Parker working rapidly but surely when cutting across an area and Dr. Hawk exclaimed, "Eddie is that the ureter?"

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HISTORY OF ANESTHESIOLOGY AND MEDICINE: A BRIEF COLLECTION OF "RECOLLECTIONS" FROM DR. LAURIE BROWN

And Dr. Parker calmly replying, "Gee I hope not, John." Of course it wasn't the ureter. And I vividly recall pinching Dr. Kredel's lip in a small area when I was using the laryngoscope for inserting a gastric tube. While in the Recovery Room Dr. Kredel asked whether or not he had had a "saddle embolus" but I discussed his aneurysm resection with him. Although I had anesthetized numerous patients for him, and had once helped to care for him in the operating room after an accident at his home, I still felt awkward in helping to care such a distinguished surgeon who had taught me so much, and I respected so deeply.

On July 1, 1956, my anesthesiology residency was completed. Both Ray Ivester and I had the service of the anesthesiology secretary to do our clerical work and billing during her free time. So when my announcements were sent to members of the medical society and others, my office address was 55 Doughty Street, the address of the new Medical College Hospital. My residency was completed and private practice begun, but I did have to shake off a few comments from some of my medical friends who commented on the tremendous office building that I had obtained when just entering practice.

These are but a few recollections of early anesthesiology training during the early days of the Medical College Hospital. Anesthesia Practice during those years was quite different from that practiced in the 1990's. On the following pages will be some description of practice during that time, as I can recall.

RESEARCH CORNER:

HYDROXYETHYL STARCH AND ACUTE KIDNEY INJURY IN ORTHOTOPIC LIVER TRANSPLANTATION: A SINGLE-CENTER RETROSPECTIVE REVIEW, CLICK HERE FOR FULL ARTICLE

Hydroxyethyl Starch and Acute Kidney Injury in Orthotopic Liver Transplantation: A Single-Center Retrospective Review

William R. Hand, MD,* Joseph R. Whiteley, DO,* Tom I. Epperson, MD,* Lauren Tam, BS,† Heather Crego, RN, BSN, CCTC,‡ Bethany Wolf, PhD,§ Kenneth D. Chavin, MD, PhD,|| and David J. Taber, PharmD||



BACKGROUND: Acute kidney injury (AKI) is a frequent complication of orthotopic liver transplantation (OLT). Hepatic failure pathophysiology and intraoperative events contribute to AKI after OLT. Colloids are routinely used to maintain intravascular volume during OLT. Recent evidence has implicated 6% hydroxyethyl starch (HES) (ASO/O.4) with AKI in critically III patients.



METHODS: We performed a retrospective cross-sectional analysis of electronic anesthesia records, surgical dictations, and perioperative laboratory results. Postoperative AKI incidence was determined by RIFLE (**R**isk **I**njury **F**ailure **L**oss **E**nd-Stage) criteria. AKI was staged into Risk, Injury, and Failure based on change in serum creatinine from preoperative baseline to peak level by postoperative day 7. Uni- and multivariate analysis was used to evaluate the association between type of intraoperative colloid administered and AKI. **RESULTS:** One hundred seventy-four adult patients underwent OLT and had complete records



for review. Of these, 50 received only 5% albumin, 25 received both 5% albumin and HES, and 99 received only HES. Albumin-only, albumin and HES, and HES-only groups were otherwise homogeneous based on patient characteristics and intraoperative variables. There was a statistically significant linear-by-linear association between type of $\operatorname{colloid}(s)$ administered and AKI (Rifle Criteria—Injury Stage). Patients administered HES were 3 times more likely to develop AKI within 7 days after OLT compared with albumin (adjusted odds ratio 2.94, 95% confidence interval, 1.13–7.7, P=0.027). The linear trend between $\operatorname{colloidal}$ use (5% albumin only versus albumin/HES versus HES only, ranked ordering) and "injury" was statistically significant (P=0.048). A propensity-matched analysis also showed a significant difference in the incidence of AKI between the patients receiving albumin compared with HES (P=0.044).

CONCLUSIONS: Patients receiving 6% HES (130/0.4) likely had an increased odds of AKI compared with patients receiving 5% albumin during OLT. These retrospective findings are consistent with recent clinical trials that found an association between 6% HES (130/0.4) and renal injury in critically ill patients. (Anesth Analg 2015;120:619–26)

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OB BLOOD SIMULATION BY: JOSH TERRY, MD





The MUSC Annual OB Hemorrhage Workshop was recently held as a collaboration between the Labor and Delivery staff and the Anesthesia Department. The workshop, which may resemble a haunted house, is both a fun and educational assessment tool that helps familiarize physicians and nurses with their own blood loss assessment skills.

Maternal hemorrhage is a very common complication that involves approximately 3% of all deliveries. It is defined by greater than 500cc blood loss for a vaginal delivery and greater than 1000cc blood loss for a cesarean delivery. At MUSC, we have a group paging system that is activated as a result of maternal hemorrhage and notifies the attending obstetrician and anesthesiologist, senior and junior anesthesia residents, anesthesia tech, L&D charge nurse, and blood bank personnel. Once activated 6 units of O negative packed red blood cells, 4 units of fresh frozen plasma, and 1 unit of platelets are made immediately available.

The workshop involves each participant visiting 25 stations representing common OB blood loss scenarios (with real expired blood) ranging from as little as 100cc blood loss to over 2 liters of for a simulated cesarean delivery in a mock operating room. The OB hemorrhage workshop is a valuable experience that I hope will continue at MUSC, and is something residents can help facilitate at their respective hospitals after finishing residency.

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OB BLOOD SIMULATION CONTINUED . . . BY: JOSH TERRY, MD

















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CONGRATS DR. EBONY HILTON ON RECEIVING AN APPLAUSE AWARD FROM A PATIENT

"She is knowledgeable of my husband's needs. Dr. Hilton was able to put information on a level which I could understand. Such a sweet and caring doctor."



CONGRATS DR. HORST RIEKE ON RECEIVING AN APPLAUSE AWARD FROM A PATIENT



- "Brilliant"
- "Caring"
- "Knows how to related with family member"
- "Love that man"

CONGRATS TO DR. ERIC NELSON, NEW CT FELLOWSHIP DIRECTOR



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THROWBACK THURSDAY

In continuation of last month's Throwback Thursday featured in Sleepy Times, Kassandra Gadlin, MD was able to recruit more participants to wear the old fashioned retro scrub dresses. As shown: Julie Owen, MD; Kassandra Gadlin, MD; Michele King; Quiana Scotland, MD; Allie Poole; and Maria Yared, MD were those who participated.







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WELCOME NEW CRNAS

Nurse Anesthesia welcomes two new practitioners, Ben Sokol, CRNA, MSNA and Hal Mahaffee, CRNA, MSNA. Both are graduates of the Anesthesia for Nurses Program in the College of Health Professions Class of 2014.

Ben, a Charleston native, is a 2007 graduate of the University of South Carolina, College Of Nursing. He was an involved student and graduated with honors. After returning to Charleston he practiced at Roper Hospital. Ben's areas of practice were surgical intensive care and cardiac intermediate care. After gaining critical care experience, he applied for admission to the nurse anesthesia program. During academics Ben's research study concentrated on preoperative evaluation and its effect on anxiety. This was accepted and displayed as a poster at the South Carolina Association of Nurse Anesthetists meeting in October 2014.

Hal is a 2009 honors graduate of Georgia Southwestern State University, School of Nursing. He is a member of Sigma Theta Tau. Prior to entry in the Nurse Anesthesia Program, Hal practiced in Georgia for several years in critical care areas with a concentration in CVICU. He obtained his CCRN credentials in 2012. Prior to the anesthesia program, Hal performed clinical research in skin breakdown prevention for the ICU patient. His academic research focused on the newly graduated CRNA as a full service provider transitioning into primary practice.



Ben Sokol, CRNA



Hal Mahaffee, CRNA

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WELCOME NEW ANESTHESIA TECHS

CHRIS FORTNER

Chris Fortner is from Greenwood, SC and graduated from Greenwood high school in 1992. He earned a B.S. in Pastoral Ministries/Minor Business Administration in 1999 and B.S. in Health Science Pre-Professional in 2011, both from Lee University in Cleveland, TN. In May 2011, he began working as an Emergency Department Technician at Roper St. Francis and then became an Anesthesia Technician in May 2013. In September 2014 Chris then decided to continue his Anesthesia Tech career at Palmetto Health Richland in Columbia. He recently returned to Charleston and began working here at MUSC as an Anesthesia Tech in February of this year. His goal is to further his medical education either as a mid-level provider or take the big leap into medical school and do his residency in Anesthesia. For fun Chris is a musician and has



played the trumpet since the age of 9, drums, piano, guitar, and vocals. In 2003 he played the trumpet for Plane Jane in Charleston. Chris has traveled all over the U.S. singing with college choirs and playing. He also enjoys working out and doing anything outdoors. Most importantly, he loves being an Anesthesia Technician. Chris would like to thank you all for the warm welcome he has received, confirming he made the right decision to come on board at MUSC.



CHRISTOPHER RAVENELL

Christopher Ravenell comes to us from Ridgeville, SC. He has been in the medical field for the past four years. Previously he was employed by Trident Health Systems. Christopher's long term goal is to become a Physician Assistant and is looking forward to gaining a lot of experience as an anesthesia tech.

LUCY COFRAN

Lucy Cofran is from Annapolis, Maryland and moved to Charleston in 2010 to attend the College of Charleston. She graduated with a BS in Biology and will hopefully be attending a physician assistant program by 2017. Lucy loves scuba diving, the beach, and painting.



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ANESTHESIA TECH'S ENJOY WINE AND DESIGN



From Left to Right: Alexis Davis, Katie Smith, Lucy Cofran, Ali Greer, and Shelley Webster

NATIONAL ANESTHESIA TECH DAY, MARCH 31, 2015











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NATIONAL ANESTHESIA TECH DAY, MARCH 31, 2015













HOW DID WE MISS THIS? SOUTH OF BROAD LIVING MAGAZINE FEATURING DR. CHRISTOPHER SKORKE AND FAMILY, JUNE 2014



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GRAND ROUNDS FOR THE MONTH OF APRIL

"Anesthesia Medically Challenging Case Conference" April 7, 2015 Bryan Covert, MD CA3 Resident Medical University of South Carolina





"Obstructive Sleep Apnea: Perioperative Management" April 14, 2015 Norman Bolden, MD Associate Professor Case Western Reserve University

"Anesthesia Fellow Research Presentations" April 21, 2015 Patrick Britell, MD, Fellow Robert Harvey, MD, Fellow Beth Teegarden, MD, Fellow Medical University of South Carolina









"Post-op Sore Throat: Causes and Prevention" April 28, 2015 Katie Bridges, MD Clinical Instructor Medical University of South Carolina



DEPARTMENT OF ANESTHESIA AND PERIOPERATIVE MEDICINE

Medical University of South Carolina

Email: kinmic@musc.edu Phone: 843-792-7503 Fax: 843-792-9314

CHECK OUT OUR WEBSITE AT: http://www.musc.edu/anesthesia

Future Events/Lectures Intern Lecture Series

2/April—Anesthesia for Peds, Dr. Sabbagh 23/April—OB, Dr. Hebbar 30/April—Infectious Diseases, Dr. Rieke

CA 1 Lecture Series

1/April—Anesthesia for Cardiovascular Surgery, Dr. G. Whitener 8/April—Pediatric Anesthesia PBL, Dr. Redding

22/April—Anesthesia for the Trauma Patient, Dr. Skorke

29/April—Basic Statistics for the Boards, Dr. Hand

CA 2/3 Lecture Series

6/April—Monitored Anesthesia Care (Barash Ch. 31), Moodle, Dr. Freely 13/April—Post Dural Puncture Headache: The Worst Common Obstetric Anesthetic Complication, Dr. Bolden (Case Western) 20/April—Intravenous Anesthetics (Barash Ch. 18), Moodle, Dr. Wilson 27/April—Opioids (Barash Ch. 19), Moodle, Dr. Redding

Grand Rounds

7/April—Anesthesia Medically Challenging Case Conference, Dr. Covert 14/April—Obstructive Sleep Apnea: Perioperative Management, Dr. Bolden (Case Western)

21/April—Anesthesia Fellow Presentations, Drs. Britell, Harvey, and Teegarden 28/April—Post-op Sore Throat: Causes and Prevention, Dr. Bridges SLEEPY TIMES



I HUNG THE MOON

Don't forget to nominate your co-workers for going 'Beyond the Call of Duty'. I Hung The Moon slips are available at the 3rd floor front desk, and may be turned in to Kim Crisp.

Thanks so much!!

Chris Ravenell, Anesthesia Tech- Doing a fantastic job! Always willing to help and wanting to learn more! Great Job!



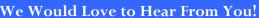
Resident Graduation: June 19, 2015, Founders Hall

Department Holiday Party: December 4, 2015, Carolina Yacht Club

April 2015

Standard of the Month

Dress appropriately for my position or while on the premises of MUSC including wearing my badge at lapel level.



If you have ideas or would like to contribute to *Sleepy Times*, the deadline for the May edition will be April 27, 2015.