MESSAGE FROM THE CHAIRMAN:
SCOTT T. REEVES, MD, MBA

Over the next several months we will be reviewing our department strategic plan. This month Dr. Guldan will be discussing education.

**Strategic Plan – Education**

**Vision:** To be educational leaders and innovators in anesthesiology and perioperative medicine.

**Mission:** To provide students, residents, fellows, anesthesiologists, and the medical community with outstanding education in anesthesiology and perioperative medicine in order to foster the development of excellent clinicians and educators.

**Goals and Objectives:**

**Faculty**
- Develop Perioperative Medical Management Program with education in perioperative medicine and critical care
- Develop MOCA and other possible CME offerings to facilitate faculty development

**Residents/Fellows**
- Develop an automated competency-based assessment system in line with ACGME Milestones Project
- Improve ultrasound training in the perioperative setting and ICU
- Improve education in perioperative medical management
- Improve opportunities for research and education about research methodology
- Develop a “Residents as Teachers” program

**Medical Students**
- Improve and expand curriculum to aid in delivery of medical student education in all rotations. (ICU, OR, and Pain Clinic)
- Improve assessment of education for all medical student anesthesiology rotations (ICU, OR, and Pain Clinic)
- Improve marketing and visibility of medical student rotations and anesthesia research opportunities
- Continued quality improvement of the medical student Anesthesia Interest Group (AIG)

It is our vision to be leaders in education and create innovative practices in Anesthesiology and Perioperative Medicine. Our department has been at the forefront of simulation education and research, culminating in our designation as an approved MOCA center by the ABA. We are continuing down this exciting path, immersing our residents and students in high fidelity simulation to train them for high acuity/low frequency events through our ACRM courses (Anesthesia Crisis Resource Management). We have just acquired a simulator that will allow us to incorporate both TEE and TTE images and pathology into our simulations.
This is a powerful new tool that will aid in training our residents and faculty in basic TEE image acquisition and interpretation, while adding to our ability to recreate complex cardiac simulations.

Our residents now take part in high fidelity OB simulation and a practical blood loss assessment course. This spring we will begin a cardiac anesthesia simulation course for residents to prepare them for critical events before their advanced CA2 cardiac rotation.

We have greatly expanded both resident and faculty involvement in pain management and perioperative medicine. It is truly the future of our specialty to be providing comprehensive high quality care to complex patients from admission to discharge to improve their outcomes. Our resident led ART Pain and Perioperative Medicine service was the first arm of this important new direction for our department. We now provide 24/7 coverage of difficult airways, codes, acute/chronic pain coverage, and preoperative consults at the Ashley River Tower hospital. Next leading off the data from our departments research in goal directed therapy and the reinvigorated preoperative clinic, we will begin taking a greater role in the preop and postop care of our challenging orthopedic patients as well as ENT flap patients. Armed with the data of improved patient outcomes and shorter ICU and ultimately hospital stays, we hope to leverage this success into a full-fledged perioperative medicine service.

The ACGME’s Next Accreditation System (NAS) is scheduled to begin this July for Anesthesiology programs nationally. This is the culmination of the ACGME milestone project that intends to evaluate residents in all specialties on a continuum of competencies from novice to expert throughout their training in each of the core competencies. These “milestones” in their training will then be reported to the ACGME. We are far ahead of the game as we have already changed all rotation evaluations to an ACGME milestone compatible format. We will also be implementing procedural competency evaluations that will provide direct feedback to residents. As we transition to the EPIC EMR system, we have the ability to automate resident performance evaluation and provide valuable real time feedback. One could, for instance, view their postop N/V rate, epidural or regional block success rates, PACU pain scores, antibiotic timing/type, etc. This will be the basis for many quality improvement projects for both residents and faculty in the future, ultimately helping achieve much better patient care and ensuring the best education of our residents.

The department has greatly expanded our research efforts, hiring two full time assistants to support an academically active faculty. We currently have 51 individual projects that are either approved or pending IRB approval. This gives us the opportunity to get both residents and medical students involved in our departmental research. Through our involvement with the FAER program and our internal Reves and Brown scholarships, we have up to four outstanding medical students participate in our department’s research projects each summer.

Through the “Residents as Teachers” program our residents have been actively teaching basics of anesthesia, pharmacology and physiology in the College of Medicine. In addition, residents are paired with visiting medical students to ensure they complete the visiting curriculum as well as aid in their evaluation. The medical student rotations have been developed to give a complete overview of our department with rotations in the Pain Clinic, the ICU and the OR. In addition to clinical learning, medical students attend all departmental lectures, including a weekly medical student lecture series and simulation course. In the simulation course they experience ACLS, ACRM, and pharmacology simulations.

We have had many changes over the past year, but our department has achieved much through the hard work of all those that call it home, and I am truly excited to see what accomplishments we achieve together next.

Sincerely,

GJ Guldan, MD
In the recent past, the role of transesophageal echocardiography (TEE) in the perioperative setting has been increasingly recognized and is not limited to patients undergoing cardiac surgery. As anesthesiologists, we frequently care for patients with cardiac disease undergoing non-cardiac surgery and occasionally have unexplained hemodynamic instability in these patients. TEE can play a vital role in managing these patients. Recognizing this, the American Society of Echocardiography and the Society of Cardiovascular Anesthesiologists have released a consensus statement supporting the significant role that TEE plays in managing the hemodynamically unstable patient. Additionally, the American Society of Anesthesiologists (ASA) House of Delegates mandated the development of a program focused on education and training in basic echocardiography skills.

A thorough understanding of both cardiac anatomy and physiology is required to optimize the utility of TEE. To prepare our department to utilize TEE, the cardiac anesthesiology division hosted a TEE conference with the purpose of introducing basic echocardiography principles. Lectures focused on topics including image acquisition, ventricular function and valve interrogation. The day seemed to be well received by those faculty and residents who attended.

Moving forward, we hope to establish a pathway for interested faculty and residents to pursue certification in basic echocardiography. For those interested, weekly lectures are given to cardiac anesthesiology fellows that cover various topics pertinent to echocardiography. These include reviews of prior echocardiography examinations, which are required for basic TEE certification. More information can be found about the basic TEE certification process at www.echoboard.org.
NC/SC Annual Meeting; Anesthesiology 2013, Back to Basics: Patient Care, Teaching & Research was held from September 6-8, 2013 at the Grove Park Inn in Asheville, North Carolina. It was an excellent opportunity for Dr. Guldan and me to get to know our CA1 class better. This year there was a specific resident track with residents from MUSC, Duke, Wake Forest and UNC participating. Topics included: Pearls: I Wish I Would Have Learned This in Residency, The Changing Marketplace in Anesthesiology, How the Medical Board Determines Appropriate Credentials for Licensure, and Fitness to Practice Medicine and Health Care Reform as a few examples. We all appreciate those that covered while the CA1s participated in this educational opportunity.

Back Row, Left to Right: Drs. Powelson, McLawhorn, Brewbaker, Pillow, Herndon, Moretti, Carter, Fox, Kottkamp, Black. Front Row: Drs. Roden and Kightlinger

Above, From Left to Right: Drs. Fox, Moretti, Carter, Pillow, Kightlinger, Brewbaker, Powelson, and McLawhorn

Left, Back Row: Drs. Kightlinger, Pillow, Fox, Powelson

Front Row: Drs. Carter, McLawhorn and Moretti
**PHYSICIAN OF THE MONTH: DR. MATTHEW ZACHARY**

“Dr. Zachary has been instrumental in caring for our acute and general surgery patients at night. He makes decision and actually listens to the nurses and our recommendations. For being a new intern, he is smart as they get....sometimes smarter than the residents! He is prompt and genuinely is concerned for patients, families, and the nursing staff. He has been so kind and is an independent thinker. He is also very knowledgeable of his patients and also general treatments for this population of DIFFICULT patients. He is a breath of fresh air and we are excited when he is on call because he will "get it DONE"!! He exemplifies all qualities that MUSC doctors should have as far as attitude and willingness to help. We are gonna miss him after he leaves us!!! The next interns have HUGE shoes to fill!”

Dr. Matthew Zachary was very surprised when presented with award.

Left to Right: Dawn Leberknight, Drs. Owen, Keena, Zachary, Condrey, Lawson, McKinnon, and Leslie Fowler

Dr. Matthew Zachary accepting The Physician of the Month award.

Dr. Matthew Zachary
“LOVE AND MEDICINE: MUSC STUDENTS BOUND BY PASSION FOR GLOBAL HEALTH,”
PAST ANESTHESIA RESEARCH ASSISTANT: LUKE DONG,
MUSC GLOBAL HEALTH, HTTP://GLOBALHEALTH.MUSC.EDU/

For MUSC medical students Sara Winn and Luke Dong, grocery shopping was not only therapeutic, but the origin of their love. Between traveling the world for medical fieldwork and spending time studying in the library, all roads led back to H&L Asian Market, where these two students began making casual food runs as friends. “The first time I texted Luke and we really hung out on our own, I asked him if he wanted something from the grocery store,” said Sara. “He ended up joining me on our first trip to the store together.”

Sara is a fourth year medical student who has established roots in the student community, first serving as vice-president and subsequently, president of the College of Medicine Student Council. She also volunteered for MUSC Service Learners International’s (SLI), a student run organization that promotes global health trips. Sara chaired the Curriculum and Public Health committees for SLI.

Sara was one of six people awarded a global health trainee travel grant from the MUSC Center for Global Health which enabled her to travel to Haiti this past summer for fieldwork. “The major barriers to doing global medical work are travel expenses and other related costs,” said Sara. “I’m hoping that the global health trainee grants encourage more students to pursue trips to work or do research abroad.” You can see more of Sara’s past global health and other adventures on her blog sites Cambodia Sara and Hangzhou Sara.

Luke, also a fourth year medical student, founded SLI after recognizing a need for MUSC students’ exposure to global health experiences. It was through this effort that Sara and Luke spent most of their time together, hashing out plans to raise funds and coordinate logistics for their medical mission trips, most recently to Thomonde, Haiti this past July through a partnership with Project Medishare. “We chose Haiti as a common site because it is the country of greatest need in our hemisphere,” chimed Luke.

They have dedicated their extracurricular time at MUSC to global medical work by constructing a sustainable model to grow SLI. “Part of the idea is to empower students to put trips together and to understand the places they are going,” said Luke. “We’d like to make sure students are contributing to long-term improvement, rather than short-term personal gain.”

Sara and Luke have worked alongside each other for three years, toiling through medical courses and outlining intricate details of trips abroad for medical missions. They now have the task of planning what will be their most memorable trip: to the altar for their wedding in February. Shortly after, the two will then match for residency and graduate from MUSC in May. “It’s fun; we have so many symbolic turning points and the opportunity to share those experiences with each other,” said Sara.

The couple plan to pursue global health work in the future when the opportunity arises and after they’ve settled into their respective careers. Sara is pursuing an internal medicine and pediatrics residency while Luke plans on a residency in an anesthesia program, specifically critical care, with the hopes that through this specialty he will be able to continue working around the globe. “I think this will guide me as I go forward,” explained Luke. “I understand the need for more critical care physicians globally.”

Although Sara and Luke spend the lion’s share of their time moving their careers forward, family comes first—people, essentially, are top priority. They understand the importance of interfamilial relationships at home and how it impacts medical care decisions. Through this, they’ve adopted the same philosophy for the patients they’ve treated here in the United States and abroad.

To view the story and pictures please Click Here.
UNIVERSITY SERVICE AWARDS

Dr. Scott Reves

Dr. Susan Harvey

Dr. Grayce Davis

Jennifer Caldwell, CRNA

Jean Day, CRNA

Not Pictured: Kathleen Comley, CRNA and Lynn McInerny, CRNA
RESEARCH CORNER:

CONGRATULATIONS TO DR. SCOTT REEVES AND DR. ALAN FINLEY FOR PARTICIPATION IN THE ASE/SCA GUIDELINE DOCUMENT ON BASIC PERIOPERATIVE ECHOCARDIOGRAPHY

Recently, Drs. Scott Reeves and Alan Finley participated in the joint ASE/SCA guideline document on establishing a Basic Perioperative Echocardiography Examination. It was published in the *Journal of the American Society of Echocardiography (JASE)* and was the feature article in September’s edition of *Anesthesia Analgesia*. Dr. Reeves participated in a podcast describing the importance of the article which can be found at:

http://www.openanesthesia.org/OpenAnesthesia.org;MultimediaPlayer#tab=Article_of_the_Month
The ASE/SCA Comprehensive Examination Document

In addition to establishing a Basic Perioperative Echocardiography Examination guideline document, the ASE/SCA Comprehensive examination document published in 1999 underwent an extensive revision and was published in JASE in September. Dr. Reeves was fortunate to be a contributor.

ASE Guidelines and Standards

Guidelines for Performing a Comprehensive Transesophageal Echocardiographic Examination: Recommendations from the American Society of Echocardiography and the Society of Cardiovascular Anesthesiologists

Rebecca T. Hahn, MD, FASE, Chair, Theodore Abraham, MD, FASE, Mark S. Adams, RDMS, FASE, Charles J. Bruce, MD, FASE, Kathryn E. Glas, MD, MBA, FASE, Roberto M. Lang, MD, FASE, Scott T. Reeves, MD, MBA, FASE, Jack S. Shanewise, MD, FASE, Samuel C. Siu, MD, FASE, William Stewart, MD, FASE, and Michael H. Picard, MD, FASE, New York, New York; Baltimore, Maryland; Boston, Massachusetts; Rochester, Minnesota; Atlanta, Georgia; Chicago, Illinois; Charleston, South Carolina; London, Ontario, Canada; Cleveland, Ohio

(J Am Soc Echocardiogr 2013;26:921-64.)

Keywords: Transesophageal echocardiography, Comprehensive examination

Congrats to Faculty Excellence Awards Nominees

Dr. Larry Field

Dr. Mark Henry
WELCOME TO THE DEPARTMENT SRNAS

HEALTH PROFESSIONS - MASTERS- ANESTHESIA FOR NURSES - SECOND YEAR

Akaraskul, Melody
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Willoughby, Lucas
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Womack, Tassi
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Wright, Emily
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Federal initiatives have promulgated a fundamental shift toward outcomes-based reimbursement strategies aimed at rewarding less expensive, higher quality care. The transition to reimbursement based on value rather than quantity places hospitals under tremendous pressure to match resources with outcomes. Hospital leaders looking for ways to reduce an organization’s costs and improve its efficiencies are targeting effective supply chain performance as a central strategy for overall hospital sustainability. A 5 to 15 percent reduction in supply chain costs would equate to a 1 to 3 percent improvement in a hospital’s operating budget. The increasing demand for reduction in operating costs and greater efficiency will drive a new level of accountability in supply chain management.

Supply chain costs are the second largest expense for a hospital after personnel costs, representing as much as 40 percent of the total operating budget. Price Waterhouse Coopers found that Perioperative services accounts for approximately 61% of supply chain costs, 50% of which is spent in the operating room.

Inventory optimization is a key strategy for effective management of the supply chain. Effective inventory management reduces the need to tie up assets in working capital. The Pyxis® machines we use each day are much more than an automated supply cabinet, they are an important mechanism for Perioperative inventory management. Used appropriately, the benefit to the end-user is immediate access to inventory. Using the touch-to-take technology with every withdrawal provides technicians with usage information and identifies the need for replenishment, so anesthesia providers always have access to supplies. What is not obvious to the end-user is the integration of the Pyxis® platform with the PICIS electronic medical record and the Horizon Enterprise Materials Management. This integration facilitates supply inventory management, improves case costing and charge capture, increases billing accuracy, generates purchase orders, tracks vendor products, matches contract prices to vendor billing, and identifies improvement opportunities necessary for optimal supply chain performance. The OR Management group is using data from this integrated system to analyze cost per case per surgeon and provide surgeons with a comparative analysis of same procedure surgeon costs within surgical disciplines. Surgical sub-specialty groups are using this information to reduce inventory, seek out lower cost alternative products, and renegotiate contracts with vendors.

Anesthesia providers and OR nurses play a critical role in effective inventory optimization and supply chain management in Perioperative services. The opportunities for supply chain savings and generating meaningful data that will drive value in our area are enormous. Your part is simple—push the button for every withdrawal, every time. We audit your activity through the Pyxis® technology, which produces an activity report every morning for directors and managers to review. Congratulations to the following High-Performers in this week’s audit:

*All our Stellar Anesthesia Technicians!*  

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<th>CRNA’s</th>
<th>Resident’s</th>
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<td>Shelley Richardson, Laurie Uebelhoer, Leslie Sykes, Kim Saletan, Pat Tobin, Rita Meyers, Mike Wolfman, Mike Sloan, Theresa Morgan, Amy Leatherman, Adrianne West, and Angela Mund</td>
<td>Mark Henry, Bryan Covert, Robert Christopher, Parker Gaddy, Katherine Roden, Steven Aho, and Kassandra Gadlin</td>
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GRAND ROUNDS FOR THE MONTH OF OCTOBER

“Fluid Management in the Trauma Patient”  
October 1, 2013  
Bruce Crookes, MD, FACS  
Medical University of South Carolina  
Associate Professor in Surgery

“Rotem Update”  
October 8, 2013  
Alan Finley, MD  
Medical University of South Carolina  
Assistant Professor in Anesthesiology

“INR, a Myth?”  
October 22, 2013  
Adrian Rueben, MBBS, FRCP, FACG  
Medical University of South Carolina  
Professor in College of Medicine  
Gastroenterology and Hepatology

“Non-Opioid Adjunctive Pain Medications”  
October 29, 2013  
Wesley Doty, MD  
Medical University of South Carolina  
Assistant Professor in Anesthesiology
I HUNG THE MOON

Don’t forget to nominate your co-workers for ‘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!!

Greg Ivy, CRNA—Going above and beyond in being a great team supporter!

Paul Anderson, MD—Helping to get yellow charge ticket errors corrected.

Katie Bridges, MD—Coming back from ECT and being a rock star and giving breaks when needed when we were short people. Help is much appreciated.

Paige Thompson, CRNA—Taking a brief lunch break out of concern for everyone else.

Jenny Matos, MD; Robert Harvey, MD; and Brystol Henderson, MD—Helping set up and starting an emergency heart case.

Hannah Bell, MD—Your hard work paid off! Congrats on your fellowship to Columbia.

Holiday Party: December 7, 2013
Location: Carolina Yacht Club.

We Would Love to Hear From You!
If you have ideas or would like to contribute to Sleepy Times, the deadline for the November edition will be October 23, 2013.