May was a challenging month for our department with the sudden unexpected death of Dr. Hans Sonntag just weeks before his scheduled retirement. Many of us were able to attend his memorial service which highlighted the many accomplishments of this remarkable man. In the pages that follow, Horst Rieke has written a very nice eulogy for us.

On a more positive note, the Anesthesiology residency received the highest possible accreditation cycle renewal of 5 years by the Accreditation Council for Graduate Medical Education (ACGME). We will not be up for another site visit until April 1, 2016. WOW! Our global health elective in Tanzania was also approved. I want to personally thank the whole department for achieving this outcome. We should especially thank our excellent program director, Matt McEvoy, residency coordinator, Leslie Fowler, and associate program director, GJ Guldan, for all their hard work in realizing this great accomplishment. It is a testament to the progress we are achieving in truly making MUSC known as a place where excellent education occurs.

In addition, MUSC was well represented at the Society of Cardiovascular Anesthesiologists (SCA) meeting in Savannah. It was great seeing the many presentations given by our fellows and faculty. We also came very close to winning ECHO jeopardy this year, but despite this we achieved our goal of dethroning the Duke team.
IN MEMORY OF PROFESSOR HANS SONNTAG, MD
BY: HORST RIEKE, MD

On the 7th of May 2011 Professor Hans Sonntag, MD passed away after suffering a severe heart attack. With deep grief we look at the life and great achievements of an outstanding physician, scientist, colleague, and friend.

Professor Sonntag was born February 2, 1936 in Nordhausen, Germany to a family practice physician and his wife. He was the youngest of 5 children, and he came into the world at a time when World War II was underway. When he was 9 years old his family home was leveled by Allied bombs and the family narrowly escaped by hiding in a hole dug on their property for a planned swimming pool. Having lost everything material, the family struggled through the war and the subsequent division of Germany into East and West. Nordhausen was in the East. Hans’s father apparently decided it would be best for him to leave the East German environment and go West, so in 1957 he escaped with little more than the clothes on his back to West Berlin. From that point on he was on his own, struggling to support and educate himself at the same time. Because the baccalaureate certificate from East Germany was not accepted in the West, Hans had to repeat his pre-medical education at Stuttgart in order to be accepted to medical school.

In 1957 he entered Medical School at Georg-August University in Göttingen, a University that would become his professional home, in a city that became his personal home. Hans’s residency training was in both anesthesia and critical care medicine, and he also completed the equivalent of a PhD in Physiology. His training was interrupted by a two year break spent in an outpost hospital in Annaba in Algeria.

Back in Germany Hans became a board certified anesthesiologist in 1970. Upon completion of his training his academic anesthesia career really took off, and he ultimately became one of the best known and most respected anesthesiologists in Europe. He became Professor of Anesthesiology with a habilitation treatise on coronary perfusion and myocardial metabolism of the human heart under the influence of various anesthetics in 1973, for which he received the Karl-Thomas award of the German Society of Anesthesiology and Critical Care Medicine in 1974.

Professor Sonntag headed the Division of Cardiovascular & Thoracic Anesthesia at University Hospital Goettingen from 1973 to 2001. His responsibilities also included the critical care units, pre-hospital ambulance, and emergency medical services, which are the responsibility of anesthesiologists in Germany. In the late 1960’s, he reorganized the infrastructure of the critical care units at the University Hospital Goettingen and reequipped them with modern ventilators and monitors, which included establishing a critical care dedicated blood gas and electrolyte laboratory.
He successfully led the charge to bring a medical rescue helicopter to Goettingen, which was a matter of tremendous efforts in dealing with the government of Lower Saxony as well as with numerous other administrative institutions beyond emergency medicine.

Hans was a devoted mentor during his 28 years on the Goettingen faculty. He advised more than 15 postdoctoral fellows through both thesis and additional postdoctoral lecturing qualifications, and another 44 through defense of a postdoctoral thesis. His curriculum vitae lists more than 80 peer reviewed scientific publications.

Professor Sonntag became a true authority for international cardiothoracic anesthesiology, particularly with respect to anesthesia-related myocardial perfusion, oxygen balance and metabolism. He performed numerous honor functions in academic boards and organizations. Professor Sonntag was Chairman of the Cardiovascular Working Group for the German Society of Anesthesiologists, and an early organizer, long-time board member and Chairman of the European Association of Cardiothoracic Anesthesiologists from 1992 to 1995. When the European Union formed, he was a key organizer of the new European Board Exam, and served as an Examiner for that Board. He received numerous honors and awards, including Fellowship in the Royal College of Anesthetists. The recognitions that perhaps meant the most to him were the honorary memberships and awards he received from the Russian, Hungarian and Polish Societies of Anesthesiologists, particularly the Golden Cross of Merit, which he personally received by the President of the Republic of Poland.

After his retirement in Germany in 2001, Professor Sonntag started working in Halle, Germany, as well as in the USA where he finally joined the Department of Anesthesia and Perioperative Medicine at MUSC as an attending anesthesiologist, professor and scientific consultant.

Besides being a physician and scientist, Hans was very successful in many activities beyond medicine. Being a private pilot, he owned and built an Italian Sequoia Falco F.8L leading to his title of “The Creator of the First Homebuilt Falco” in Germany.

He was also a dedicated competitive swimmer and was respected/feared for his skills in water polo. As a scuba diver his specialty was under-water photography as well as bringing up ancient Greek amphorae from the bottom of the Mediterranean Sea. Later, once established in Charleston, his favorite activity was cooking and preparing culinary delights for dinner with his friends.

Hans Sonntag was very unique in his way to see the world with his eyes and to communicate his perception of the universe according to his individual and personal philosophical convictions. Everyone who ever took the risk to run into an argument with him, immediately learned that he was not only capable and competent to precisely analyze people and what’s behind their declared standpoints, but also that he had a heart of gold - always listening carefully and willing to help everyone who was in trouble, no matter what kind of trouble. He was highly efficient in supporting and helping, and he did it with that special smile of his, and this we will always remember!
This year’s annual meeting was a huge success. Our department led off with Jake Abernathy speaking on Sunday in an Intermediate TEE workshop lecturing on MVR, What the Echocardiographer needs to know. Later Caroline McKillop presented in a special fellows conference entitled, Words of Wisdom: Experts’ Advice for managing complex cases. Her case was entitled, Management of a symptomatic patient with high transvalvular gradient across a prosthetic aortic valve.

Two former deans and close friends, Drs. Jerry Reves and Joel Kaplan imparted their collective wisdom during their presentation: Where Will You Be in 10 Years? Alan Finley presented his research as a poster, Low tissue factor and hemodilution enhance protamine’s ability to inhibit clot formation. Ilka Theruvath presented her’s on Differential cytokine and matrix metalloproteinase profiles following ventricular septal defect or tetrology of Fallot repair. Scott Stewart presented his titled Anomalous Pulmonary Venous Return: Scimitar Vein.

On Monday at the business meeting, Scott Reeves ended his tenure as Secretary Treasurer of the society and was elected President Elect. The meeting ended with TEAM MUSC (Abernathy, Finley, Reeves) attempt to win Echo Jeopardy against two time defending champion Duke University and another new team from Emory/Vanderbilt/Dartmouth. Despite a very difficult question set, this year’s contest was the highest scoring in the 5 year history of the event. MUSC led at each early transition point but came up 1 point short of victory in the end and lost to the Emory combined team. Defending two time champion Duke came in last. Better luck next year!

Alan Finley concluded the meeting on Wednesday during the TEE Workshop and Exam review with his lecture, The nuts and bolts of diastology.
Well, almost all of the boxes have been unpacked (except for the dozen or so that are still in my garage due to insufficient space). Liz Favre, B.S./Technician II, and Huamei He, Ph.D./Senior Staff Scientist, have done an outstanding job getting most of the critical equipment set up and operational. Many thanks also go to our new laboratory neighbor, Dr. Kyu-Ho Lee, for his help and space accommodations, and to Donna Hoffman, Brenda Dorman, Glenna Ross, and Beth Gladden for helping with the myriad ordering, regulatory, and administrative tasks that come with setting up a new lab.

The overall theme of the lab is to improve our understanding of the biology of cellular stress. Major projects include 1) mechanisms of pressure/volume overload injury to infant right ventricular myocardium, with the focus upon mitochondrial - and epigenetic - related signaling pathways; 2) developing cardiac stem cell therapies to reverse ventricular failure in patients with congenital heart disease; and 3) defining cell stress-induced pathways and signaling networks leading to and arising from “permanent” alterations in gene expression caused by cellular stress; here, we hope to use C. elegans as a model organism (and will be the only C. elegans facility on the MUSC campus). We will continue to collaborate with several investigators inside and outside of this institution on all of these projects. Local collaborators include Frank Spinale, Michael Zile, Rupak Mukherjee, Catalin Baicu, Donald Menick, Scott Argraves, Kelly Argraves, Kyo-Ho Lee, Eric Graham, Sinai Zyblewski, Phil Saul, Minoo Kavarana, Scott Bradley, and Andy Atz; those from other institutions include Piero Anversa, Jan Kajstura, Annarosa Leri, John Kheir, and Alan Packard (Harvard Medical School); Kevin Strange (Mt. Desert Island Biological Laboratory); Uwe Christians and Jeffrey Gallinkin (University of Colorado Denver);

The lab will also be supporting several other translational/clinical projects to varying degrees, including: 1) use of novel microdialysis methods to measure tissue activities of plasmin, kallikrein, and thrombin in infants undergoing cardiopulmonary bypass (investigators include Drs. Ilka Theruvath, Minoo Kavarana, and Scott Bradley and Korey Rentz); 2) a preliminary exploration of ROTEM monitoring of coagulation during infant cardiopulmonary bypass (investigators include Drs. Minoo Kavarana, Ilka Theruvath, Scott Walton, Scott Bradley, Alan Finley, Korey Rentz, and Charles Greenberg; 3) Organ-specific miRNA, inflammatory, and proteomic biomarkers of CPB-associated injury in infants (Ilka Theruvath, Eric Graham, Scott Walton, Scott Argraves, Minoo Kavarana, Scott Bradley, Doe Jenkins, Andy Atz, Frank Spinale, Rup Mukherjee); 4) Neuroinflammation and protein misfolding as mechanisms of postoperative cognitive dysfunction in the elderly (Doro Rosenberger, Heather Boger, Doe Jenkins).

As Vice Chair for Research, my major goal over the next few weeks is to establish the annual seed money and time “budgets” for the Department. Once this is done, we will be able to set up a peer review committee whose job will be to define departmental research priorities and evaluate and make funding recommendations for faculty research projects; this group will also lead the research discussion at the upcoming departmental retreat. The intent of establishing the review committee is to make the process transparent, fair, and productive. Come fall, we will be starting up a regular monthly research conference that will include project presentations as well as speakers on various topics such as MUSC campus research resources (e.g. the South Carolina Clinical and Translational Research Institute), study design, etc. I encourage your comments, thoughts, and suggestions as we work together to evolve this process. Please also let me know if you are interested in serving on the peer review committee.
ASA LEGISLATIVE CONGRESS: A RESIDENT’S PERSPECTIVE
BY: YOUNG CHOI, MD

In early May, the annual ASA Legislative Conference convened in Washington, DC with the goal of educating attendees about the issues at the forefront of healthcare and what impact those issues will have on the field of anesthesia. Several members of the Department of Anesthesia including Dr. Fred Guidry, Dr. Tara Queener, Brenda Dorman, and myself along with members of the South Carolina Society of Anesthesiologists were present for this three day event. Two days were focused on pending and current legislation, methods to improve advocacy among fellow anesthesiologists, and preparation for visits to Capitol Hill to meet legislators from our own state. While several topics were discussed, the ballooning national debt was a subject that remained inescapable.

Our debt crisis is looming at the forefront of every political, social, and economic aspect of life in our country. Already, our own practice of anesthesia has been heavily influenced by current and anticipated budget constraints. The concerns that we face in our own microcosm are being mirrored at the national level as well. The impact this will have on our practice of anesthesiology remains uncertain. There is, however, overwhelming, bipartisan consensus in Washington, DC that change is inevitable.

In months to come, Congress will move forward to temporize and hopefully correct our increasing debt. We have no choice but to face the reality that our worsening financial status must be reversed. While we should not be distracted from our duties to continue to provide excellent care to our patients, we are also in a position to be ignored in the coming debates. Now is the time, especially if never before, to become politically active. If we do not become involved in the process, then we lose the opportunity to make a difference. Regardless of our individual positions on these issues, we as healthcare providers cannot afford to jeopardize our patients and our careers by watching idly in the coming months as new legislation is created.
As long as she can remember, Joanne Conroy has been a risk taker. But the biggest roll of the dice of her career may have come in 2008, when she resigned as a hospital president to become chief healthcare officer for the Association of American Medical Colleges (AAMC).

Three years later, it’s evident the risk paid off – she’s been honored as one of the top influencers in healthcare.

“I love running a hospital, walking the halls at 2 in the morning,” she says of the 700-bed Morristown Memorial Hospital, part of Atlantic Health, where she served. “Every single day, there are great miracles that happen. But I realized that I could only affect care in a very small area, and even then I could be hamstrung by external forces. I could stay there, or I could actually go where I could be part of change on a national level.”

At the AAMC, she leads CEOs, CMOs and others in discussing readiness for reform and other pressing policy issues.

“At our spring meeting, we had 100 deans and 100 CEOs in the same room talking about two big issues – financial sustainability, and quality and patient safety,” she says. “We spent time drilling it down into educational components we could use to achieve those goals. I had one CEO tell me, ‘The deans and I agree on far more than I thought we would.’ ”

But Conroy and the AAMC have not been afraid to tackle controversial issues head-on as well. Last year, the association concluded its work on conflicts of interest by focusing on clinical care in a 46-page study, “In the Interest of Patients.” It had previously addressed conflicts of interest in medical education and research.

“Let’s say a physician has invented a device,” Conroy says. “He or she receives royalties from sales of the device. What’s the infrastructure so that the physician and the academic medical center where the doctor works do not profit when this device is prescribed for patients there? How is that disclosed to patients? The Mayo Clinic, for example, has a strong policy in this area.”

As she considers her honor at being named one of the Top 25 Women in Healthcare, Conroy says one key attribute for up-and-coming female executives is to “lead through influence,” a quality that just about defines her current position. But she also says that being “very skilled at building teams” can be a career catalyst as well. That’s something she’s done since the birth of her career at the Medical University of South Carolina, where the school recently established the Joanne M. Conroy, M.D. Endowed Chair for Education and Leadership Development. It was and is a testament to a career of firsts – Conroy was the first woman clinical chair (Department of Anesthesia), the first female president of the state society of anesthesiologists.

When she started as a resident at MUSC, the written anesthesia board exam pass rate was only 50 percent. When Conroy became chief resident, she was determined to make a difference. “I made my colleagues meet every Sunday for 3 hours to prepare for the written board exams. We had a 100 percent pass rate for written and orals from then on for at least 7 years.”

And the leaders she trained are now running the place.

“That,” Conroy says, “is the only real reward and acknowledgment I need to keep going.”
Eighteen new honorees joined the ranks as Modern Healthcare unveiled the fourth installment of its Top 25 Women in Healthcare awards sponsored by Furst Group.

The winners are: Audrey Andrews, Maureen Bisognano, Gail Boudreaux, Angela Braly, Sandra Bruce, Linda Burnes Bolton, Debra Cafaro, Joanne Conroy, Karen Davis, Gail Donovan, Tracy Gaudet, Karen Ignagni, Sally Jeffcoat, Sister Carol Keenan, Linda Leckman, Joan Magruder, Pamela McNutt, Margaret O’Kane, Debra Osteen, Deborah Proctor, Lois Quam, Patricia Rice, Nancy Schlichting, Kathleen Sebelius, and Mary Wakefield.

Returning honorees are Braly, Davis, Ignagni, Keenan, O’Kane, Sebelius and Wakefield. Davis and Ignagni have made the Top 25 on all four occasions: 2005, 2007, 2009 and 2011.

In their intro, Bob Clarke and Sherrie Barch wrote: “If you look back over the history of healthcare in the U.S., one fact is impossible to ignore: Most of the pioneers were female.”

We congratulate this year’s class of honorees, who are steering a course through territories that are just as uncharted as those the early trailblazers faced. The articles can be found here. (Note: Registration is required.)

**ANNOUNCEMENTS**

The State of the Department Address will be held on

**Tuesday, July 12, 2011 at 6:30 am**

Three of our Research Assistants have recently been accepted to Medical & Nursing Schools. Congratulations to all of them!

**Lawren Anderson**:
Accepted to University of South Carolina School of Medicine

**Kevin Ryan**:
Accepted to Medical University of South Carolina School of Medicine

**Joshua May**:
Accepted to Medical University of South Carolina School of Nursing
WHAT THE SUDAC VISITING PROFESSOR PROGRAM MEANT TO ME
BY: CARLEE CLARK, MD

A month ago I had the opportunity to travel to Gainesville, Florida to participate in the University of Florida’s Department of Anesthesiology Grand Rounds series. My trip was a result of the Southern University Departments of Anesthesiology Chairs (SUDAC) junior faculty development initiative. Giving and preparing presentations is always a little stressful, but even more so when you will be speaking to a roomful of unknown academic anesthesiologists. My topic was Perioperative Volume Assessment, which sounds quite broad, but what I discussed was how our assessment of fluid status and fluid administration algorithm is changing. This was a little risky because I didn’t know what their practice entailed, but what I found was surprising and reassuring.

They are in the same boat as we are . . . trying to figure out what it is we should be doing with perioperative fluid assessment and administration. I was met with a friendly and attentive crowd. I was asked a few really good questions, and then I spent the rest of the day meeting and talking with various faculty members from their department. I met with Dr. Kayser Enneking, the chair of the department, and we discussed the use of technology in medicine and anesthesia. Afterwards, I noticed her administrative assistant was putting all of her weekly appointments into her iPad. At the end of the day I had made new contacts and possible research collaborators on perioperative Acute Kidney Injury, discussed the benefits/negatives of open versus closed intensive care units with one of their fellows, visited their simulator lab to see how they do things and also learned a little bit about deep sea fishing. Overall, it was great experience. We are sort of isolated within our own department, and it is always beneficial to see how other departments are educating their residents, delivering anesthesia, and trying to improve their practice.
They just didn’t know. No one had taught them. Now a group of women have a chance to learn the basics. The basics most of us do not even think about because we simply take them for granted. The basics of how to keep our bodies clean, how to read words, signs, books, instructions…how to write our name, a note, a letter…how to protect ourselves from malaria, tuberculosis, HIV, uncaring men, also how to believe in something outside of ourselves, a higher power.

Twenty-one year old Agnesta Nashon came to Bugando Hospital to wait for help from what can be a devastating condition. A condition that can change your family because you can get kicked out, change your friends because no one wants you around, change your dreams because you can’t work.

While Agnesta waits for surgery to repair her pain filled body, her mind and spirit are undergoing a different sort of repair. She is working hard everyday to learn the letters “a” “b” “c” and every other letter of the alphabet. As she pushes her work toward the teacher, her hopeful eyes delight as each correct answer gets a red check mark.

These special women have learned the letters ‘V’ ‘V’ ‘F’ the most difficult way. Vesico vaginal fistula is why they are here. VVF is most often brought on by obstructed child birth, when the bladder is damaged causing a constant leaking of urine. A cesarean section could have prevented it. Surgery is now their only chance of correcting it.

Many of these mostly young women are part of Betty Nyanda’s tribe. Some women are refugees. Others have driven a day to have the chance to get better at Bugando. Though the surgery may be weeks away, they’re not waiting to improve. On any given day, for several hours, there may be up to 40 of these women gathered around the table on the 4th floor to learn from Betty Nyanda. Betty, ward education coordinator, juggles the responsibilities of her 8 primary and 4 secondary schools to come teach these women at Bugando for several hours Monday through Friday. The daughter of a teacher, Betty knows she is fortunate to have gotten an education.

Betty says she likes teaching these ladies at Bugando. “The women from poor families didn’t know a good education would give them a good future. Many of their parents didn’t send them to school and they have missed so many things.”

Thirty year old Josephine Otieno has been waiting one month for the life changing surgery. “The classes really help”, she says, “I love it!” Though she is in a lot of pain, the classes on reading, writing and crochet help ease the wait.

Now you know how to spell “H” “O” “P” “E”.

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Currently in the United States over 15 million units of red cells are transfused, which is a dramatic 40% increase since 1994 when only 10.5 million units were used. The reason for this dramatic increase in blood use is certainly multifactorial and may be driven by changes in therapy and the increased availability of medical/surgical procedures in which blood use can be significant (e.g. liver transplantation) and, perhaps, the aging of the population. However, it is also true that as the risk of HIV transmission through blood transfusion has become decidedly rare (1 case since 2001), there has been a tendency on the part of both physicians and patients to view transfusion with less concern. But is this wise?

The risk associated with transfusion-transmitted infections is now quite small. The estimated risk of HIV or Hepatitis C transmission is now extremely low (approximately 1 / 2,000,000 transfusions) due in large part to improvements in infectious disease testing of donors. But in a recent article in the journal Transfusion, entitled, “Blood Still Kills,” the authors make the point that many of the “other,” non-infectious risks of transfusion are still present and that some of these risks could be further reduced. The article notes that Transfusion–Related Acute Lung Injury (TRALI), Transfusion-Associated Sepsis (TAS), and Hemolytic Transfusion Reactions (HTR) now represent the 3 most common causes of transfusion-associated mortality in the United States today. Indeed these 3 complications account for over 84% of all fatalities ascribed to transfusion. TRALI is reported to occur as frequently as 1 : 5000 transfusions but is most commonly associated with plasma or platelet transfusions. TAS seems to occur at a current frequency of 1 : 75,000 transfusions, but is more common with platelet transfusions. The number of HTRs is difficult to estimate, but is felt to occur in approximately 1 : 33,000 transfusions. In spite of the fact that none of these adverse transfusion outcomes are common, it is worth noting that 12-22 patients will die of HTR this year largely due to error, 13-30 patients may die of TRALI and far larger numbers will have serious, but non-fatal, complications as a result of TRALI, TAS or HTR.

While the relative rarity of these adverse outcomes of transfusion does give us some “comfort” that transfusion is a relatively safe (but not risk-free) hospital procedure, there is increasing evidence that even patients who experience no overt transfusion reaction may have poorer long-term outcomes than those who are not transfused. In other words, is the transfusion itself a “risk factor” for the patient?

One of the earlier, and most compelling reports, is a randomized control trial of ICU patients by Hebert et al (NEJM; 1999). This study compared red cell transfusion triggers of 7 g/dL versus 10 g/dL and found that these triggers were at least equivalent with respect to 30 day mortality, hospital length of stay, and ICU length of stay. However, for some patient groups (APACHE scores <20 or patients less than 55 years of age), the lower transfusion trigger actually resulted in slightly improved outcomes for the patient. Further, while 100% of patients in the liberal transfusion arm (transfusion trigger 10 g/dL), only 67% of the patients in the restrictive transfusion arm (transfusion trigger 7 g/dL) received a transfusion. If the patient outcomes of these two arms are at least equivalent, what benefit accrued to the additional patients who were transfused in the liberal arm? Perhaps even more significant are the scores of peer-reviewed reports that purport to show that transfusion itself—in the absence of overt reaction or disease transmission—increases hospital length of stay (LOS), ICU LOS, ventilator time, 30-day mortality or even post-operative infection rate and cancer recurrence rate.

It is certain that transfusion in the appropriate patient is both lifesaving and necessary. Indeed, many of the therapies now available would not be possible without transfusion. The quandary, of course, is which patient truly requires and can benefit from a transfusion and which patient does not require transfusion, and hence gains no real medical benefit but experiences all the risks of transfusion including the possible negative impact to patient outcome.

One of the significant challenges then, is determining when and which patient will benefit from transfusion. Traditionally, we have used “Practice Guidelines” developed by a number of professional organizations. For example, ASA has developed guidelines for red cell transfusion that indicate that transfusion is rarely needed in patients with hemoglobin levels greater than 10 g/dL; continued...
...transfusion is usually indicated when the hemoglobin falls to 6 g/dL. But those in patients with hemoglobin levels between 6 and 10, the clinician is left to other assessments of the patient’s need for oxygen-carrying capacity. Additionally, there are patient groups, those with severe cardiac disease, children with certain congenital heart defects, and some sickle cell patients where these guidelines provide little help. Similar issues arise when using published practice guidelines for use of FFP or platelets. It is a small wonder then that transfusion practice varies so dramatically from physician to physician and hospital to hospital.

Even though there is growing evidence that blood transfusion, while generally a “safe” procedure carries risk for the patient, there are other important reasons to carefully evaluate a patient’s need for transfusion. One of these is the very significant cost associated with transfusion for both the patient and the hospital. In a period of time when Medicare and other insurance reimbursements have been declining, the overall acquisition costs for blood components has increased 3.7% which is a combination of increased blood product fees and increased usage here at MUSC. However, if it is true that transfusion increases hospital LOS, ICU LOS, ventilator times, and infection rates, then increased acquisition fees for blood components may represent only a minority of the expense caused by transfusion.

The question of how we should monitor blood transfusion is a difficult one. MUSC is just beginning to evaluate individual transfusions (red cell, platelets, plasma) based on generally accepted transfusion triggers: red cell transfusion at hemoglobin > 8 g/dL; platelet transfusion for patients with platelet counts <10,000/µL, and plasma at PT, aPTT, or INR. Based on these “triggers,” how are we doing? For patients transfused outside the operating room, approximately 30% of red cell transfusions are given to patients who have hemoglobin levels greater than 8 g/dL. Importantly, it should be emphasized again that simple assessment of transfusion triggers provides only a limited amount of information on the “appropriateness” of a transfusion; many of these transfusions given to patients whose hemoglobin levels were greater than 8 g/dL were unquestionably necessary based on the unique clinical condition of the patient. Nevertheless, these data do raise a concern that some of these red cell transfusions were given to patients who did not need them and who did not benefit from them.

Assessing transfusion for patients in the operating room has presented greater challenges. Recently, the Department of Anesthesia and the Transfusion Service have begun a project to assess transfusions given to patients during surgical procedures. The PICIS medical record provides patient demographic data and valuable real-time clinical information preceding and following blood transfusion that will prove a useful tool in performing this assessment. This information has been collected in a data base that will allow examination of these variables in all patients receiving intraoperative transfusion. The project will initially study our transfusion practice pattern relative to hemoglobin concentration prior to transfusion. Later studies will examine other physiologic variables related to blood administration.
MEET THE NEW CA1s!
THIS YEAR WE HAVE 11 NEW CA1s!!

Hannah (Laura) Bell is from right outside of Boone, NC. She went to Erskine for her undergraduate and MUSC for medical school. Some of her interests include the outdoors, music, pizza, violin and piano, old movies and ultimate frisbee.

Robert Christopher has completed a residency in internal medicine in which he is also board certified and has been practicing at Trident for the past year. He will be joining the rising CA1s as he switches over to Anesthesiology.

Parker Gaddy is from Winnsboro, SC. He graduated from Clemson and finished medical school at MUSC. He enjoys hunting, fishing, and all sports. His wife Elizabeth is a nurse here in the NICU and they are expecting their first child in November.

Robert Harvey is from Columbia, SC. He completed his undergraduate degree at Duke University and from there attended medical school here at MUSC. He enjoys spending as much time as possible on the beach.

Brystol Henderson is from Sumter, SC and attended USC (Carolina) for Med School. She loves to travel and has visited 4 out of the 7 continents! Her most recent trip was to California Wine country. She loves to cook and spend time at the beach.

Mark Henry grew up in sunny Trinidad & Tobago. His wife, Mbong, is a physical therapist here at MUSC in the ortho/trauma service line. When not working, Mark likes the sound of a good jazz quartet and a large plate of anything spicy.

Jennifer Matos was born in Allentown, PA, loves Puerto Rican, Cuban food and Dim Sum. She minored in theater and was a stage hand as an undergraduate; so it’s fitting that one of her favorite past times is watching Glee. She has been camping only once, but has climbed a mountain!

Quiana Scotland is from Georgia and did her undergraduate up north. After one too many winters with below zero temperatures, she headed back down South to attend medical school in Atlanta. She enjoys traveling and spending time with her niece and nephews.

Brandon Sutton was born in Louisville, KY. He completed his undergraduate degree from the University of Kentucky, where he also completed medical school. Some of his activities include the outdoors, fishing, and boating.

Jarret Todd was born and raised in Columbia, SC. He has played soccer his whole life including through college where he spent his first two years at Presbyterian College than transferred to the University of SC where he attended medical school. He also likes snowboarding and college football.

Kam Wong was born in Hong Kong, grew up in KY, has lived in VA and TN, and is now here in beautiful Charleston. His interests include: Asian food (he can make good recommendations), outdoors, board games and UK basketball!! He is excited about starting anesthesia and getting to know the department.
Cram for the Exam

Dr. GJ Guldan was recently chosen to participate in a Basic TEE examination board review workshop sponsored by the Society of Cardiovascular Anesthesiologists. It will be given the Friday before the ASA annual meeting. Congratulations!

The Basic Echo Boards Review Course

October 14, 2011 • Hilton Palmer House • Chicago, IL

Course Director
Feroze Mahmood, MD
Assistant Professor of Anesthesiology, Beth Israel Deaconess Medical Center
Boston, MA

Course Faculty
George J. Guldan, III, MD
Assistant Professor of Anesthesia & Perioperative Medicine
Medical University of South Carolina
Charleston, SC

Adam B. Lerner, MD
Assistant Professor of Anesthesiology
Beth Israel Deaconess Medical Center
Boston, MA

Robin Matyal, MD
Instructor in Anesthesia and Critical Care
Beth Israel Deaconess Medical Center
Sharon, MA

Peter J. Panzica, MD
Vice Chair of Clinical Anesthesia
Beth Israel Deaconess Medical Center
Boston, MA

Course Objectives
At the conclusion of this course, attendees will:
1) be better prepared to take the Basic Echo Board Examination; and
2) have received a comprehensive review of the basic principles of hemodynamics and image acquisition and interpretation.

Course Description
1) This course is designed to benefit anesthesiologists who plan on taking the Basic Echo Board Examination.
2) It will be conducted in a written board format via an interactive examination with an audience response system consisting of written and video-based questions followed by explanations and discussions.
3) There will be an interactive review of the basic principles of ultrasound physics, hemodynamic principles, image acquisition and anatomical interpretation.

Registration information will be available on the SCA website soon at www.scahq.org

This course is not endorsed or sponsored by the National Board of Echocardiography.
JERRY AND JENNY REVES ADVENTURE:  
THE GREAT LOOP

Last summer Jerry and Jenny did a trial motor boating adventure in preparation for this year’s attempt at completing the Great Loop. The map (right) shows the magnitude of the journey!

The whole department can track their progress on their web site (see picture below): www.sweetgrassadventures.com

They have been underway since early May.
Hurricane season officially begins in June. All forecast models are calling for this to be a very active hurricane season.

This year, the watch/warning system has extended the watch/warning notifications to 48 hours for watches and 36 hours for warning for both tropical storms and hurricanes. The intent was to increase the notification interval to allow additional time for preparations. These changes are being incorporated into our existing hurricane plan which can be found at our departmental web site under Clinical Sections and Protocols/Disaster Plan.

Please pay particular attention to the emergency staffing plans for each institution (UH and ART) found on the next page.

Make plans now for your family in case you are part of the emergency response team.

MUSC has made significant improvements in existing weather emergency policies and alert systems. One of these changes is the MUSC alert system, which offers faculty, staff and students the opportunity to sign-up to receive text message alerts via mobile devices, and desktop and email alerts regarding weather emergencies and other campus-related emergencies. Please note this system does not currently incorporate the Simon paging system. Those who are interested in receiving alerts in this manner, please register at www.musc.edu/muscalert.

Those interested in following weather information can also do so at http://weather.library.musc.edu/, which has satellite, bulletin and tracking information, or the MUSC Provost's weather site, http://weather.musc.edu/.

Those of you who are pet owners, may wish to consider your pet's immunization status, should you have to board your animal during a weather emergency. Shelters will not accept animals who have not been properly immunized. Immunizations must have been administered 5 or more days prior to requested boarding.

I will keep the department updated on revisions of our hurricane plan and weather warnings as they occur. Please make sure you read the plan and understand your responsibilities should an approaching system mandate implementation of our weather emergency plan.
HURRICANE PLAN

III. Department Weather Emergency Staffing:

- During weather emergencies, the Rutledge Tower ambulatory surgery facility will be closed to surgical procedures.
- The University Hospital Operating Room will be staffed by the following members of the Activation Team (designated, essential personnel):
  - **Faculty:** Two faculty scheduled to cover the date of the anticipated Weather Emergency (Step 3 above) will be assigned in house call.
    - If the scheduled in-house call attending is pediatric capable (peds, peds CT or peds liver) then the second in house attending will be the **Bold 1** faculty.
    - If the in house call attending is not peds capable then the second faculty in house person will be determined by the following order. The first available pediatric capable faculty will assume the in house duty.
      - **Bold 1**(peds, peds CT, peds liver faculty)
      - **Bold 2**(peds, peds CT, peds liver faculty)
      - Peds
  - **Residents:** The designated CA 3, CA 1, OB and liver upper level call residents scheduled for duty on that date.
  - **CRNAs:** The scheduled 24 hour call CRNA or the late CRNA when a 24 hour individual is not scheduled. A second 24 hour CRNA volunteer will be designated. The Chief CRNA will make this determination during the Step 1 (weather watch) planning stage.
  - **Anesthesia Technicians:** Two anesthesia technicians will remain in the hospital commencing with Step 3 conditions. These individuals will be named by the Anesthesia Technician supervisor from anesthesia tech “Team A” during the Step 3 planning phase.
- The Ashley River Tower Operating Room will be staffed by the following members of the Activation Team (designated, essential personnel):
  - **Faculty:** The cardiothoracic anesthesia attending scheduled to cover the date of the anticipated Weather Emergency (Step 3 above).
  - **Residents:** Upper level ART backup resident (can not also be assigned at the University Hospital).
  - **CT Fellow:** The on call CT fellow will stay in house. If no CT fellow is assigned on call, one of the fellows will be assigned as determined by the CT Fellowship Program Director.
  - **CRNAs:** The scheduled 24 hour call CRNA or the late CRNA when a 24 hour individual is not scheduled. The Chief CRNA will make this determination during Step 1 (weather watch) planning stage.
- After the “all clear” notification is made and “return to work” is mandated via the website or above telephone call line, the recovery team is expected to return to the hospital to relieve the Activation Team.
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 Rhonda or Kim. Thanks so much!!

Frank Stewart, Cory Furse, Kim Selatan, & Will Hand: Taking excellent care of Ansley—really going the extra mile! Thanks! (4/8/11)

Tammie Matusik: For making multiple trips to deliver documents to an ongoing meeting for Dr. Harvey allowing Karen James to finish other materials needed in meeting. (4/29/11)

Ali Cleveland: Thanks for consistently pitching in as a great team player. (5/12/11)

Sam Tripp: For pitching in as a team player. (5/12/11)

Larry Banks: Going the extra mile by coming over to ECT to bring drugs. (5/16/11)

Mike Sloan: For helping get an ICU case started late. So nice to have help and not having to ask for it. Great team player!

Bennett Cierny, MD: Stayed 3 1/2 hours after his shift to help in a complicated case. Showed true commitment to his patient, he is an awesome team player. Thanks!

Leslie Ancrum: Came in to help start an ICU case started after hours in the evening. It was a great help, way to be a team player!

Save The Dates:

- Resident Graduation, Friday, June 24, 2011, Charles Towne Landing
- State of the Department Address, Tuesday, July 12, 2011, 6:30am
- Faculty Retreat, Saturday, November 19, Thurmond/Gazes Research Building, Room 125
- Holiday Party, Friday, December 2, 2011, Cottage on the Creek ***NEW LOCATION!!