MESSAGE FROM THE CHAIRMAN
-SCOTT REEVES, MD, MBA

February is always an interesting month in sports. Who will be the next super bowl champs? Who will be selected early in the NFL draft? Being a Clemson fan, I hope CJ Spiller goes early in the first round.

More importantly, how well did the department do this year in our effort to recruit top talent? I am pleased to say that we did exceptionally well. Our recruits include the following new faculty for the 2010-2011 academic year and their respective residency and fellowship training sites.

Jake Freely, MD
Residency: Rush University
Pediatric Fellowship: Northwestern

Ryan Guselman, MD
Residency: Case Western Reserve

Kelly Grogan, MD
Residency: John Hopkins
CT and Critical Care Fellowships: John Hopkins plus 6 years experience

Eric Nelson, MD
Residency: Rush University
CT Fellowship: Medical University of South Carolina

Christopher Skorke, MD
Residency: Rush University

Frank Stewart, MD
Residency: George Washington University
Pediatric Fellowship: Children’s National Medical Center plus 19 years experience

Dorothea Rosenberger, MD, PhD
Residency: University of Heidelberg
Fellowship: University Hospital of Zurich

David Stoll, MD
Residency: Medical University of South Carolina

Ilka Theruvath, MD
Residency: Medical University of South Carolina
Pediatric Fellowship: Children’s Hospital of Philadelphia

Sylvia Wilson, MD
Residency: University of North Carolina
Regional fellowship: University of Pittsburg

Jarred Younger, PhD
Residency: University of Tennessee
Postdoctoral Fellowship: Stanford

I know you will all welcome them as they begin to arrive starting this month.
UPDATE FROM THE CRNAs AT UNIVERSITY HOSPITAL

The New Year started out bittersweet for our department. Terry Satterfield left us on January 4th, followed too quickly by Nathan Kuper on January 17th. Both left for family reasons. Nathan wanted his son to be closer to his grandparents, and I completely understand that, but it doesn’t stop us all from missing him. On the sweet side, we have gained five new CRNAs. Alyssa Cleveland started back in October, 2009. She came to us from Dallas, Texas. Beth Jennings started January 4th. She graduated from the MUSC anesthesia program and worked over at East Cooper for 10 years until she came to her senses. Mike Sloan and Leslie Sykes are two of the new graduates who started January 19th, having just recently passed anesthesia boards. Congratulations to both! Last, but not least, Tim Grannell started on January 19th. He graduated from this program last year and worked at Trident until he came to his senses.

We are also very happy about the three new anesthesia techs coming on board. Larry, Ken, Rick, Marshall, Cara, Ralph, James and John have done a GREAT job in spite of being short staffed, but they’re ready for some help. Katie Boan, Kelly Bramhall and Zach Lamb have completed orientation and should be in the clinical area by now. Please welcome them all to the department.

I know we haven’t written much for Sleepy Times in the last couple of months, but it’s because we’ve been busy. Rita Meyers and her husband Jeff adopted a baby boy, William Walker, last month. The CRNAs threw him a party and made sure he had a great Christmas, and that his new mom had all the equipment she needed to take care of him. The CRNAs also chose to help two families from Families Helping Families. With Kim Adams in charge and lots of generosity, we provided about 10 family members with a pretty nice Christmas.

Congratulations to Laurie Uebelhoer’s son, Gentry. He graduated from boot camp January 29th and joined the proud ranks of the U.S. Marine Corps.

Congratulations to all the CRNAs in the Anesthesia Department for always doing a great job. I hope you all had a great National Nurse Anesthetist Week January 24-30.

It’s a girl!

Please help the Department of Anesthesia welcome its newest family members.

Daughter of Marc and Kristen Hassid

**Evie Claire Hassid**

1/19/2010

8lbs,7oz

Daughter of Alan and Traci Finley

**Caroline Avery Finley**

1/23/2010

7lbs,5oz
RESIDENTS FALL SHORT AGAIN

Mt. Pleasant, South Carolina, January 18, 2010

The third annual resident vs. faculty bowling challenge occurred this year at Twin Rivers Lanes. Contrary to 2009, the residents pulled out all stops by assuring that their aces Missy Reed and Jerrell Brown would be available. Unfortunately for the faculty, Cal Alpert was away tanning in Jamaica. The rules were simple; the highest scorer in the first game from the faculty or residents would capture the crown for the team. Warm ups were not allowed. Recognition would also be given for low scores. In this regard, the residents again stacked the deck by having Anna Greta Taylor and Gabe Hillegass amazingly not available. Despite the simplicity of the process, Jay Motley (not surprising) had questions about the rules following his second game.

The residents started out strong under the prowess of Peter Goodnight, Becky Payne and Missy Reed. Missy Reed (shown to the left) with the early lead. She came equipped with her own ball and shoes. The faculty were leaning towards recruiting team McEvoy (shown below) to their cause while awaiting a faculty champion to present himself. Would it be Larry Field (shown below to the right)?

Ryan Nobles (shown above) demonstrating the falling down gutter ball technique. After the fourth frame and several beers, a faculty leader, Tom Epperson, emerged. One might ask, where was last year’s champion, Scott Reeves? He was busy listening to smack talk from Jerrell Brown. “Dr. Reeves, the only reason I am here this year is to beat you!” This was not a nice thing to say when Jerrell was up by 15 pins and was wearing his “magic” white bowling shoes. So what happened?

Whatever the outcome the residents were best dressed and had the most unique form. Did Jerrell accomplish his goal? A 15 pin lead was not enough. In the end, Dr. Reeves won with a 145 to Dr. Brown’s 118 (Dr. Reeves and Jerell are shown below to the left). Tom took the win for the faculty with a score of 180 to Missy’s 165 (Tom and Missy are shown on the bottom right). It was a great evening, and the competition was fun. Better luck next year residents.

This year’s good sports were
Cesar and Tara.
JCAHO Update By Susan Harvey, MD

JCAHO Opportunities for Improvement
Susan Harvey, MD

Labeling of Medications
- All medications and other solutions on and off the sterile field in the perioperative and procedural areas are correctly labeled:
  - whenever the person preparing the medication or solution is not the person who will be administering it
  - unless immediately administered.

- Correct labeling includes:
  - Medication or Solution name
  - Strength
  - Quantity
  - Diluent and volume
  - Preparation date
  - Expiration date & time when not used within 24 hours, or if expiration time occurs in less than 24 hours.

Medical Record Entries & Verbal & Telephone Orders
- All Medical Record entries (orders & non orders) must include:
  - Date (month, day, year)
  - Time
  - Signature & pager number

- All verbal or telephone orders must be signed, dated, and timed within forty-eight (48) hours. (Only exception is seclusion & restraints order (these require 24 hrs)).

- Holding room standing orders must be signed, dated, and timed.

- “A different physician member of the team caring for the patient may co-sign the order”

- All practitioners should regularly review the order section of the chart or the order box in CPOE (if used) to ensure there are no outstanding orders to sign.

No Unacceptable Abbreviations
- “Unacceptable Abbreviations” are not allowed in either the physician orders section or any medication related documentation, including progress notes in the medical record.
- The “Unacceptable Abbreviations”: u, ug, qd, qod, lU, MS, MSO4, MgSO4.
- *Whole numbers do not have a trailing zero. (Incorrect - 4.0)
- *No abbreviated medications names (Incorrect - HCTZ) *Decimal points must have a leading zero. (Incorrect .4) (Correct 0.4)

100% Compliance with Hand Hygiene
- Hand hygiene is completed 100% of the time.

- This includes hand hygiene prior to and following all patient care with soap & water OR alcohol based hand sanitizers. Hand hygiene should be performed upon entry into the room, regardless of whether the patient or their environment will be touched. Hand hygiene dispensers are location in holding, at the entry to the sterile core, PACU, inside every OR next to door.

- Additionally this means that for any patient on contact isolation, any clinician entering patient room must completely gown and wear gloves. Pts on contact precautions in the holding area are identified by red “stop” sign in the cubicle. Don gowns and gloves for all these encounters. Identifying signs are also placed on the exterior OR access doors.

- If entire team does bedside rounds or enters room, the entire team must gown and glove.
Dear Friends and Colleagues:

As relief efforts continue in response to the devastating earthquake that struck in Haiti on January 12, we are reminded that the need for immediate and basic human service is unrelenting and persistent. The country faces a humanitarian disaster difficult to comprehend, and although the world is trying to respond as quickly as possible, more help is needed specifically in the form of monetary donations to save lives now and in the long-term.

As professionals in the medical, health, academic, and research fields we are associated by the Medical University; and, we are connected by hope, compassion, and optimism in the future.

In response to this crisis, the Medical University of South Carolina has established the MUSC Haiti Relief Fund at the Coastal Community Foundation to aid in the relief efforts. Please join me in making a donation to the MUSC Haiti Relief Fund here.

You may designate that your donation is for the MUSC Haiti Relief Fund.

Another way to help is to make monetary donations directly to reputable organizations that are experienced in disaster relief and have a presence in the country. Please click here to see a list of many excellent agencies providing these services.

Thank you for your compassionate response to this international community crisis.

Respectfully,

Raymond S. Greenberg, MD, PhD
RESEARCH CORNER: GABE HILLEGASS, MD

Postoperative pain after total knee arthroplasty (TKA) can be severe. Adequate postoperative pain control is an important factor in determining immediate recovery and hospital length of stay (LOS). Regional anesthesia has been shown to be superior to systemic analgesics (NSAIDs and patient-controlled analgesia with opioids) for postoperative pain relief in TKA. Although epidural analgesia (EPA) in TKA has the benefit of decreased inflammation, surgical blood loss and incidence of DVT, it does carry the risk of epidural hematoma with anticoagulation and prevents early rehabilitation. Continuous femoral nerve blocks (CFNB) have also been shown to decrease surgical inflammation, but when compared to EPA they boast a shortened time to first ambulation, increased patient satisfaction, decreased time to discharge readiness and an improved safety profile.

Recent OB anesthesia literature has described improved efficacy with automated intermittent bolus (AIB) EPA compared to basal EPA infusions. Taboada et al. (2008) have recently shown a similar benefit of AIB continuous popliteal sciatic nerve blocks compared to a basal infusions in patients undergoing elective hallux valgus repair. To date there has not been a study comparing the AIB technique to a basal infusion technique with CFNB in TKA. There are over 130,000 TKAs performed each year. Should the AIB technique prove to be more beneficial (e.g. speed patient recovery and decrease hospital LOS), there would be the potential for tremendous healthcare savings in this diagnosis-related group.

Our objective is to determine the efficacy of using an automated intermittent bolus technique compared to a basal infusion technique for providing postoperative analgesia in continuous femoral nerve blocks for patients undergoing primary total knee arthroplasty. The primary outcome is postoperative analgesia, which will be assessed by determining the study participants’ perception of anterior knee pain using a visual analog scale (VAS) pain score and their patient controlled analgesia opioid requirements. Our secondary outcomes include the incidence of anterior knee pain requiring intervention (e.g. physician bolus), patient satisfaction scores, hospital length of stay and incidence of complications, side effects and technical problems with the continuous infusions. Our hypothesis states that an automated intermittent bolus technique for continuous femoral nerve block will provide better postoperative pain relief than a basal infusion technique.

To date we have enrolled and collected data on over 20 patients and the study is ongoing. We are currently compiling the data in order to perform an interim analysis. We appreciate the hard work of the regional anesthesia attendings, residents, CRNAs and research department staff. Without you this study would not be possible. Please stay tuned for a more formal presentation of the results when the study is complete. We plan to present our research at a national meeting in the upcoming year and to publish at least one manuscript in a major peer reviewed journal.

If you have not taken care of one of our study patients, yet, please briefly look over the protocol summary listed on the next page. There are certain limitations as to the medications that can be used intraoperatively. This summary sheet is posted on the regional anesthesia cart in the adult holding area as well. If you have any questions or concerns regarding the study, do not hesitate to contact one of the investigators or research staff.

Thanks,

Gabe Hillegass, MD
Resident Physician
Anesthesia & Perioperative Medicine
RESEARCH CORNER CONTINUED...

A Comparison of an Automated Intermittent Bolus Technique with Basal Infusion for Continuous Femoral Nerve Block in Total Knee Arthroplasty
Larry Field, MD; Gabe Hillegass, MD; Scott Stewart, MD

Study Design: This is a prospective, double-blind randomized control trial that will compare the efficacy of a NEW infusion technique, automated intermittent boluses (AIB), to our current practice of using basal infusions for postoperative pain control in primary total knee arthroplasty (TKA).

Inclusion Criteria: Any consenting patient aged 18 to 80 years old, ASA physical status 1-3 who is undergoing elective, unilateral primary TKA.

Exclusion Criteria:
- Patient refusal
- Pregnancy
- Diabetic neuropathy or any other neurologic or neuromuscular disease
- Rheumatoid arthritis
- Current coagulopathy
- Skin infection at needle insertion site for femoral or sciatic blocks
- Systemic infection
- Allergy to local anesthetics or hydromorphone
- Renal or hepatic impairment
- Unsuccessful femoral or sciatic block or femoral catheter placement
- Femoral catheter dislodgement after placement
- Inability to understand visual analog pain scales
- Inability to use a patient-controlled analgesia pump

Preoperative Management:
- Informed consent will be obtained during the preoperative visit by one of our study coordinators or prior to surgery in the perioperative holding area by a Regional Acute Pain Service (RAPS) physician or study coordinator.
- The femoral nerve block and catheter placement will be performed under ultrasound guidance with a stimulating needle (20 mL 0.5% ropivacaine). The sciatic block will be placed under ultrasound guidance with a stimulating needle (20 mL 0.5% ropivacaine).
- Premedication will include a maximum of 5 mg of midazolam and 100 micrograms of fentanyl.
- Submit the following infusion order to the OR pharmacy: 0.2% ropivacaine at 10.1 mL/hr.

Intraoperative Management:
- General anesthesia will be performed with either endotracheal intubation or laryngeal mask airway.
- Induction drugs are limited to lidocaine, fentanyl and propofol plus a neuromuscular blocker if needed.
- Maintenance of anesthesia is limited to only sevoflurane and fentanyl boluses as needed. No long-acting opioids or other supplemental analgesics are to be administered!
- Communicate with the orthopaedic surgery resident and attending that the patient is a study subject and that no intra-articular injections of local anesthetics or opioids are to be administered.

Postoperative Management:
- The PACU nurse will receive a randomization envelope from a study coordinator and program the infusion pump accordingly (Group 1 – infusion rate 10.1 mL/hr or Group 2 – AIB 5 mL q 30 min with a basal infusion of 0.1 mL/hr). A hydromorphone PCA will also be started in PACU and continued until catheter removal (POD #2).
- Visual analog pain scores and patient satisfaction scores will be assessed at set intervals by a study coordinator.
- If paged to evaluate an ineffective block, you may disconnect the catheter from the pump to administer rescue boluses of local anesthetic. Reconnect the catheter and continue the infusion at its previous settings. You may not alter the infusion contents, rate or technique at any time. Do not inform the patient of their study group!
- If an adverse event is suspected secondary to the femoral catheter infusion you may discontinue the infusion.
- Document all physician interventions appropriately in the patient's chart.
Resident Perspective By Will Hand, MD

January always brings changes; in the form of optimistic, but often unrealistic, new year’s resolutions. Everyone comes up with big ideas of one thing they need to improve in their lives, and January 1st becomes the start date for Life 2.0. Often the 5AM gym visits taper off in two weeks and chocolate ice cream somehow finds its way back to our late night snack plate. The residents are no different, but January brings change to us for different reasons. Unlike common annual declarations to change a part of our lives, we don’t always get to choose our resolutions.

Thinking back to my intern year, January 1st 2008 was the day I saw the light—starting anesthesia full time was just 6 months away! If I had survived 6 months already, I knew the second half year could be conquered as well… I’m sure our current interns are breathing the same sigh of relief right now.

As a CA-1, January is the transition month for many of us, as we move from anxious “monitor-watchers” to more capable anesthesia providers. As I look around at our current CA-1s, they’re having a similar experience as their confidence and competence continue to increase.

This year my experience is unique, again, as I’m completing my subspecialty rotations. Theoretically, I’m expected to have a comprehensive knowledge of anesthesia practice… it is an eye-opening reality-check to know I’m supposed to handle any case a surgeon posts. I’m also looking at the half-way point of residency in the rear view mirror; before long my classmates will have to start “real life.”

I have one more January to look forward to, and as I talk with our current CA-3s, the transition out of residency comes with a mix of anxiety and excitement; they are polishing their knowledge base, focusing on efficiency, and looking at their case with a “big-picture” perspective. Securing post-residency jobs and planning for relocation occupy their minds, not to mention their free time.

I’m sure each of us made some sort of resolution this past New Year’s Day, but the changes January brings for many residents goes beyond subtle lifestyle changes. That being said, I’m out of time for now, I’m late for the gym! Happy New Year!

CRNA Certification Success!

The Anesthesia for Nurses Division graduating class of 2009 has reported a 100% passing rate on the national certification exam! Congratulations to the following:

Austin Brown  
Kelly Cantwell  
Nathan Dail  
Allison Davis  
Matthew Dickerson  
Leia Elias  
Brandi Ford  
Sally Griffith  
Heather Hipp  
Kim Hitchcock  
Marcia Iszard  
Brantley Jackson  
Lindsay Jones  
Dacy Mackenzie  
Ally Maze  
Jennifer Morgese  
Liz Norton  
Carol Pethel  
Mike Sloan  
Robert Smallwood  
Brooke Stowell  
Leslie Sykes  
Brent White  
Margaret Winnicki
WEBSITE UPDATE: www.musc.edu/anesthesia

Over the past several months, Ashley Bode has been busy improving the look and functionality of our web page. We now have a collage of photos with part of our mission statement greeting those who enter our web domain.

In addition, our web site is full of useful information for the whole department.
**Website Update Continued...**

The Clinical Sections and Protocol area features our orientation manuals, disaster plans and important protocols. The Communication and Events site features department news, upcoming events as well as a location to view past accomplishments.

Important faculty and research committee minutes can be found in the faculty secure site.

Take a minute to review all that is available on our site. In an upcoming edition of *Sleepy Times*, we will highlight the significant changes and upgrades occurring in the Education Sections.
Future Events

2/1- “All Residents” Guest Lecture
Randy Steadman (UCLA)

2/2- Current Topics in Anesthesia for Liver Transplantation (Grand Rounds)
Randy Steadman (UCLA)

2/3- ART Teaching Conference: Critical Care of the CT Patient, Larry Field

2/8- Anesthesia for Patients with Liver Disease
Catherine Tobin

2/9- M&M, Susan Harvey

2/10- Journal Club: Transplant
Tom Epperson

2/15- Perioperative Management of the Post Heart Transplant Patient for Non Cardiac Surgery
Tamas Szabo

2/16- Pancreatic Islet Cell Transplantation (Grand Rounds), Morgan/Rieke

2/17- ART Teaching Conference: Echo Review
Jake Abernathy

2/22- CA2/3 Key Word Review
GJ Guldan

2/23- Meeting with Residents, Program Director

2/24- ART Teaching Conference: Journal Review
GJ Guldan

I Hung The Moon!

The department members below have been recognized by our patients and their peers. This month’s drawing winner is Gabe Hillegass. Gabe will receive a gift certificate to Shine Tavern.

Pat Tobin - The ultimate team player!
Rita Meyers - Always being willing to help with difficult patient care issues.
Gabe Hillegass - Staying late to do a case and being a great team player!
Kim Warren - Helping drag the chairs to the conference room for a meeting.
Caroline McKillop - Outstanding job on call. She went above and beyond and did pre-ops for all cases, even the CRNAs. She set up ORs for cases even if she wasn’t doing the case! She was also very supportive to me emotionally and helped with my work load when I was sick.
Michelle Rosecrans - Always willing to lend a hand. Thanks for helping me with a PICIS problem. It was greatly appreciated!

*It’s important that we recognize our fellow colleagues when they are going above and beyond the call of duty. “I Hung the Moon” cards can be found on the 3rd and 5th floors in the Department of Anesthesia administrative areas.

SAVE THE DATES:
- This Year’s Resident Graduation will be Friday, June 4, 2010
- 2010 Holiday Party: Friday, December 3, 2010 at the Charleston Yacht Club!

Note: You can see pictures from the 2009 Holiday party by going to www.musc.edu/anesthesia

We Would Love to Hear From You!

If you have ideas or would like to contribute to Sleepy Times, the deadline for the March edition will be February 22, 2010.

This Month’s Contributors:
Scott Reeves, Wendy Ewing, Susan Harvey, Gabe Hillegass, and Will Hand