DEPARTMENT OF ANESTHESIA AND PERIOPERATIVE MEDICINE

SLEEPY TIMES

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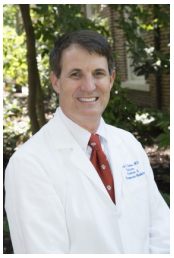
Inside This Issue:

MESSAGE FROM THE CHAIRMAN: LOCAL SCHOOL PARADIGM FOR LIVING

-SCOTT T. REEVES, MD, MBA



Recently, I was sitting in East Cooper Baptist Church listening to my pastor, Buster Brown, give his sermon. He started out by quoting the Palmetto Christian Academy, Lower School Paradigm:

1. See all people as special.
2. Do more than is expected.
3. Have a good attitude.

It reminded me of a very popular book from a decade or so ago by Robert Fulghum, *All I Really Need to Know I Learned in Kindergarten.* In his book, he listed multiple golden rules:

1. Share everything.
2. Play fair.
3. Don't hit people.
4. Put things back where you found them.
5. Clean up your own mess.
6. Don't take things that aren't yours.
7. Say you're SORRY when you HURT somebody.
8. Wash your hands before you eat.
9. Flush.
10. Warm cookies and cold milk are good for you.
11. Live a balanced life - learn some and drink some and draw some and paint some and sing and dance and play and work every day some.
12. Take a nap every afternoon.
13. When you go out into the world, watch out for traffic, hold hands, and stick together.
14. Be aware of wonder. Remember the little seed in the Styrofoam cup: The roots go down and the plant goes up and nobody really knows how or why, but we are all like that.
15. Goldfish and hamsters and white mice and even the little seed in the Styrofoam cup - they all die. So do we.
16. You may never have proof of your importance but you are more important than you think. There are always those who couldn't do without you. The rub is that you don't always know who.
17. It doesn't matter what you say you believe - it only matters what you do.

So as we begin another academic year, I hope we can keep this simple advice handy because we really did learn everything we need to know to interact appropriately with each other in kindergarten.

CONGRATULATIONS TO MICHEL SABBAGH, MD AND RYAN GUNSELMAN, MD

Dr. Michel Sabbagh will be promoted to Associate Professor in January 2019! Mike completed medical school at MUSC, moved on to Chicago for residency, and completed a fellowship in pediatric anesthesia at Children's National Medical Center in Washington, DC. Mike joined the Department of Anesthesia & Perioperative Medicine at MUSC in 2012 and completed an MBA at USC's Darla Moore School of Business this past spring. He and his wife, Rachael, have three children that keep them busy outside of the hospital, Vincent (6), Lilliane (5), and Beatrice (3). He is the Medical Director of Pediatric Anesthesia and the Pediatric Procedure Area. Mike has also been working on the transition into the new Shawn Jenkins Children's Hospital and Pearl Tourville Women's Pavilion.

Dr. Ryan Gunselman is the new Division Director for Regional Anesthesia! Ryan is originally from where every other SC transplant hails: Ohio. After growing up in the Cleveland area, he went on to complete his undergrad studies at Ohio State University and then medical school at University of Cincinnati. Following graduation, he completed an intern year of surgery at The Cleveland Clinic. Ryan completed his anesthesia residency at Case Western Reserve University (MetroHealth), where he also served as chief resident. Since joining MUSC in 2010, Ryan has been an active member of the Regional Anesthesia and Acute Pain Team. In addition to his clinical duties, Ryan has been integrally involved in resident education as Associate Residency Program Director and Chair of the Education Committee for the past 5 years. During this time, he has also served as Doctor of the Day for the main hospital. Ryan is looking forward to continuing to expand the Regional service as the demands for regional anesthesia continue to grow throughout the institution. In his free time, Ryan enjoys spending time with his fiancé, Khris, and their three dogs (Daisy, Lily, and Bentley), hanging out with his parents who reside here in Charleston, and working on cars.

RESEARCH CORNER

Dr. Britell

REVIEW ARTICLE

Tactical Neurocritical Care

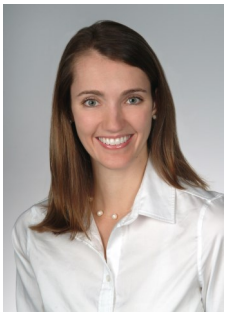
Julio A. Chalela[1*] and Patrick E. Britell[2]

Abstract

Neurocritical care is usually practiced in the comfort of an intensive care unit within a tertiary care medical center. Physicians deployed to the frontline with the US military or allied military are required to use their critical care skills and their neurocritical skills in austere environments with limited resources. Due to these factors, tactical critical care and tactical neurocritical care differ significantly from traditional critical care. Operational constraints, the tactical environment, and resource availability dictate that tactical neurocritical care be practiced within a well-defined, mission-constrained framework. Although limited interventions can be performed in austere conditions, they can significantly impact patient outcome. This review focuses on the US Army approach to the patient requiring tactical neurocritical care specifically point of injury care and care during transportation to a higher level of care.

Keywords: Tactical critical care, Prolonged field care, Military trauma, Austere care

CLEMSON DEFINE SUMMER PROGRAM
BY CATHERINE TOBIN, MD



This summer, MUSC hosted Clemson Bioengineering Students as part of the 2018 Summer Clemson DEFINE Program (**De**sign **F**undamentals **i**n **N**eeds-finding **E**xperience). Thirteen highly motivated junior and senior college students rotated in different departments for a 6-week comprehensive program to identify areas of need for a medical device or system of improvement by shadowing physicians. They worked with a number of different physicians including anesthesiologists, pediatric cardiologists, radiologists, and neurosurgeons. This program was funded by NIH and The VentureWell Program Grant.

The work they did this summer will serve as a platform for innovation during their senior year. The senior bioengineering students will work on inventing and creating solutions on a design team while back at Clemson.

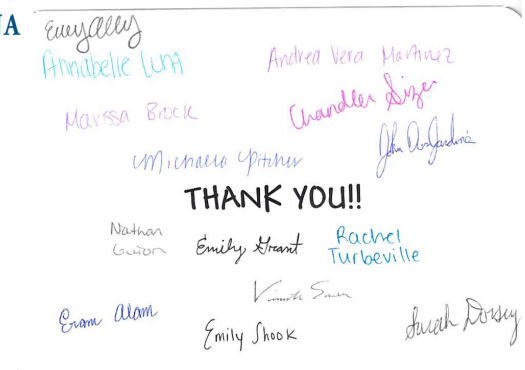
We had two students, Sarah Dorsey and Marissa Brock, with our department for two weeks. They shadowed me, Drs. Scott Reeves, Lauren Moore, Chris Heine, and Amanda Redding. One of the first things they noticed when working with me was how loud it was in the pre-op holding area at 6:55am. The patient could not hear me and I could not hear the patient. They started researching sound reduction curtains and other things to reduce the noise. They also noted how difficult it is to place a Tegaderm film over an IV after placement and wondered if designing it differently would help. They realized we have a hard time keeping patients warm while having procedures; although we have IV fluid warmers and forced air warming blankets, they are bulky and make the clinicians hot. The students observed that the warming blankets don't regulate heat based on flow rate, and they distribute heat to the rest of the room rather than only the patient. They would like to design a mechanism that evenly distributes heat to the patient and does not also make the room hot.

We enjoyed having these innovative students at MUSC with us. It was also wonderful to have collaboration with Clemson. Innovation is the future of medicine.

CLEMSON UNIVERSITY

MUSC
MEDICAL UNIVERSITY of SOUTH CAROLINA

partnering with clinical collaborators to discover opportunities for innovation in healthcare



"NOTHING BY MOUTH" FEATURED IN SUMMER 2018 PROGRESS NOTES BY KIMBERLY MCGHEE, FEATURING LAURA ROBERTS, MD

Enhanced recovery after surgery protocols challenge the traditional tenets of surgical care, using evidence-based recommendations to reduce complications and speed recovery

Nothing by mouth. Administration of generous IV fluids. Opioids for pain. Bed rest.

These age-old guides for the care of surgical patients were based on the best intentions for the patients' well-being but not, as it turns out, on good evidence. Instead, they put patients at greater jeopardy, making complications more likely and delaying recovery. Enhanced recovery after surgery (ERAS) initiatives strive to improve outcomes by replacing time-worn but ill-supported practices in the care of patients before, during and after surgery with ones grounded in evidence. Their ultimate goal is to reduce patients' stress response to surgery, which can cause biological changes, such as catabolism and insulin resistance, that delay and complicate recovery. Minimizing surgical trauma and maintaining good physiological functioning in the patient can help guard against such stress. Studies have shown that ERAS initiatives can reduce hospital length of stay by 30 percent and general complications by 40 percent or more.[1]

"Patients who are kept without food or even water are stressed and almost in a starvation mode when they come into surgery. Because of that, they would get a lot of extra fluid when they arrived at the OR," explains ERAS nurse navigator, **Geri Johnston, M.S.N.** "We were keeping people without anything and then giving them too much all at once—that can cause fluid imbalance and slow down recovery."

In addition to ensuring that patients are properly nourished and hydrated before surgery by avoidance of fasting and use of liquid carbohydrate supplements, common ERAS elements are a preference for minimally invasive surgery and regional anesthesia and early resumption of food, drink and activity, as early as the day of surgery. Use of nasogastric tubes, drains and catheters is minimized to promote the return to normal eating and greater mobility. Pain is carefully controlled, but opioid use is discouraged because it can compromise bowel function and prolong recovery and because of its potential for addiction.

Illustration by Emma Vought

Johnston was hired as the ERAS nurse navigator in April 2016 after promising results were achieved by an ERAS initiative for pancreatic surgery, one of the first in the country, led by MUSC Health gastrointestinal surgeon **Katherine A. Morgan, M.D.** Length of stay was cut by two days and the cost of surgery by more than $4,000 in the first year of the initiative.[2] Johnston's mission was to facilitate the rollout of initiatives in other surgical specialties, including colorectal surgery, orthopaedic surgery (joint replacement), gynecologic surgery and cardiac surgery. In its first year of implementation, the colorectal surgery protocol, under the leadership of surgeon Virgilio George, M.D., and anesthesiologist **Laura L. Roberts, M.D.**, shaved three days off patients' length of stay and dramatically reduced the percentage of patients receiving opioid medications for pain control (from 75 to 10 percent; unpublished results). Protocols and order sets are also in place for gynecologic oncology and are expected by the end of the year in all of gynecology, orthopaedic surgery and cardiac surgery.

"NOTHING BY MOUTH" FEATURED IN SUMMER 2018 PROGRESS NOTES CONTINUED...

The care provided by any team is constrained by the decisions made earlier in the care pathway and in turn has consequences for the later care of the patient. ERAS initiatives work in part because they strive to implement evidence-based recommendations across the continuum of care. Specialty-specific protocols help to guide treatment, education materials are developed for patients, and order sets are programmed into the electronic health record to standardize care.

Although these initiatives are typically championed by the surgeon and anesthesiologist, they are crafted and implemented by multidisciplinary teams representing all of the units providing the patient's care. Participation of bedside caregivers is particularly important for the success of ERAS, because they implement the initiatives and can help patients understand how the changes help speed recovery.

"Everyone has to work as a team and understand the protocol and how patients are going to get better sooner, or it's not going to work," says Johnston.

Another key ingredient to a successful ERAS initiative is sustainability. Frequent audits of outcomes can reveal lack of adherence to ERAS protocols and motivate continuous process improvement. Protocols too will evolve as the evidence changes, meaning that the team must be prepared to adapt.

But the payoff for patients is undeniable.

"There is a lot of evidence showing that this is an improved way to take care of patients. This is how we are going to go forward with patients having surgery," says Johnston.

References

1. Greco et al. World Journal of Surgery 2014 38:1531-1541.

2. Morgan KA, et al. J Am Coll Surg. 2016 Apr;222(4):658-664.

DEPARTMENT MEMBERS COOK FOR RONALD MCDONALD HOUSE

From left: Zachary Jeanes, Chris Heine, Alex Wharton, Savanna Howe, Kirsten Dahl, and Ryan Mims.

The group prepared dinner on August 22, 2018 for the Ronald McDonald House, which included Chicken Bog (Savanna Howe's grandmother's recipe), green bean casserole (Zachary Jeanes' grandmother's recipe), salad, and dessert.

WOMEN SCHOLARS INITIATIVE

INAUGURAL WOMEN SCHOLARS INITIATIVE RESIDENT/FELLOW WORKSHOP

STRENGTH • POWER • COURAGE

WONDER WOMEN IN MEDICINE

FRIDAY, SEPTEMBER 21 MAIN HOSP. 282 12:00 - 4:00 PM

LUNCH PROVIDED FOR THE FIRST 50 REGISTERED: HTTPS://IS.GD/SEPT21

Women in Leadership- Where Are They?

Diann Krywko, MD, Professor, Emergency Medicine

An evidence based talk outlining the current state of women in leadership and the importance of women in leadership roles. We will discuss: why women typically shy away, why they shouldn't, and the tools to help them 'lean in'.

Opportunity Justice

David Gutmen, MD, Assistant Professor, Anesthesia and Perioperative Medicine

The interplay between the professional environment and gender norms. The reflection on common situations and how they are perceived differently between men and women.

The Imposter Syndrome

Lidia Yamada, MD, Assistant Professor, Neurology

You're not alone. Even successful people believe they are frauds. This talk will focus on how to overcome that feeling and realize your worth.

The Battle for Mentorship

Stephanie Whitener, MD, Assistant Professor, Anesthesia and Perioperative Medicine

How to find, keep and become a mentor

Difficult Conversations

Leigh Vaughan, MD, Assistant Professor, Medicine & Palliative Care

We will explore how to prepare for and navigate a difficult conversation, how to control your emotions, and how to ask for what you want a the conversation gets hard.

Sorry Not Sorry, The Art of Unapologetic Communication

Andrea Abbott, MD, MSCR, Assistant Professor, Surgery

Do you find yourself apologizing or asking forgiveness even when it isn't necessary? Learn to identify if this is you and how to communicate while maintaining authority and respect without apologizing for it but still conveying kindness and understanding

Work Life Balance

Barbara Head, MD, Associate Professor, Obstetrics and Gynecology

ARROWS
Advancement, Recruitment and Retention of Women in Science

Women Scholars Initiative
Advancement, Recruitment, Retention

BOTH MEN & WOMEN RESIDENTS & FELLOWS ENCOURAGED TO ATTEND

ANESTHESIA'S OWN SAFETY HERO

MUSC Health
Medical University of South Carolina

Safely Speaking™
MUSC Health's Daily Safety Tip

Max Phillips, physician and budding electrical engineer

10 August 2018

Safety Hero

Dr. Max Phillips, a resident in anesthesia, recently worked a 24 hour in-house call shift covering Labor and Delivery (L & D). He had a rough start to his day; as his jeep was flooded with an early morning flash flood. He had to abandon his vehicle and walk to work; still, he made it on time. Despite this stress, he provided optimal and safe care to his patients on L & D. During a cesarean delivery that same evening, the Line Isolation Monitor started alarming in the L & D operating room. Line isolation systems protect persons from electrocution by turning a normal "grounded system" (that exists outside the operating room) which only needs a single fault to cause electrocution into a "protected" system in which two faults are needed to deliver a shock. Instead of muting the alarm and proceeding with the case, Dr. Phillips insisted on tracking the source of the fault. The plug to the OR table was found to be charred and burnt. A second fault to the system would have resulted in electrocution of the patient. Thanks, Dr. Phillips for your vigilance and commitment to patient and care team member safety!

Submitted by Dr. Latha Hebbar

DENTAL INJURY GUIDELINES

DEPARTMENT OF ANESTHESIA AND PERIOPERATIVE MEDICINE

GUIDELINES FOR MANAGEMENT OF PERIANESTHETIC DENTAL INJURY

Peri-anesthetic dental injury (PDI) is the most common cause for litigation against anesthesiologists. Pre-existing dental pathology or the presence of prostheses makes damage more likely but sound teeth may also be affected. A dental history and oral examination are important prior to anesthesia both for risk stratification and documentation of dental pathology.

The most commonly injured teeth are the maxillary incisors. Mandibular incisors are more likely to be injured during airway manipulation other than intubation (i.e. oral airway or LMA insertion) or during urgent intubation.

A. Identifying patients at risk for Peri-anesthetic dental injury

1. Poor dentition—large decay or restoration and advanced periodontitis are at the greatest risk for PDI
2. Dental Implants
3. Difficult intubation
4. Age—patients aged 50-70 years are at the greatest risk for PDI
5. Shedding deciduous tooth
6. Class II jaw relationship (protruding upper anterior teeth and an apparent retrusive / retro-positioned mandible)
7. Anterior crowding
8. Emergency intubation

B. Preoperative Evaluation and Documentation

1. Identification of risk factors preoperatively should be carefully documented in the medical record. Pre-existing dental pathology should be **identified and discussed with the patient.** Discussion should be documented in medical record.
2. Complete the age appropriate dental chart in the anesthesia record. Identification of risk may also allow protective measures to be taken prior to airway manipulation.

C. Clinical Pathway for Peri-anesthetic Dental Injury

1. When an injury has occurred, the patient should be evaluated for extent of injury and findings documented in the electronic medical record either by selecting the "dental incident" button or in the Post-Operative Note.
   a. If traumatic extraction or extensive tooth mobility occurs, the Oral and Maxillofacial Surgery (OMFS) resident should be paged as indicated for evaluation and recommendation. It is extremely important to involve the oral surgeon as soon as possible to minimize permanent damage. OMFS generally performs the initial evaluation and can make recommendations for further

DENTAL INJURY GUIDELINES CONTINUED…

treatment when required. Efforts will be made to address patient concerns and to verify documentation of pre-existing dental disease for medico-legal reasons.

b. In the event of a chipped tooth, OMFS need not be notified.

2. Assure the patient that you will review the medical records and you or someone will be in touch with them.

D. Quality Assurance and Risk Management

1. All PDIs must be documented in the electronic medical record and the Patient Safety Intelligence (PSI) system available online. In addition, the Department Administrator, Brenda Dorman, should be notified immediately at (2-1606).
2. Risk Management will review the medical record, request additional information from the anesthesia providers as needed, and contact the patient to communicate findings.

JOIN US FOR THE 2018 AMERICAN HEART ASSOCIATION HEART WALK!

American Heart Association. life is why

Healthy For Good™ Heart Walk.

2018 AHA Lowcountry Heart Walk
The Anesthesia Sleepwalkers are back!

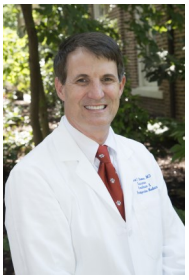
Please join us on September 29, 2018. Activities begin at 8am & the walk starts at 9am at the Riverfront Park in North Charleston!

1 or 3 mile route options - leashed dogs & strollers are welcome. Fun activities and heart health education for the entire family!

We have several options available for donations; every dollar counts! Stop by Sarah's office SEI 302 or Jackie's office SEI 315 to buy a Heart for $1 or a bracelet for $10.

Please contact the department's co-captains, Jackie Fisher at 2-7503 or Sarah Hameedi at 2-0424, with any questions. Click here to visit our webpage and join the team!

WAKE UP SAFE
BY SCOTT REEVES, MD WITH AMANDA REDDING, MD



Recently, we received our quarterly report from Wake-Up Safe, led by Amanda Redding for our department. **The demographics for this large multicenter pediatric data base that now includes over 3.5 million anesthetics is as follows:**

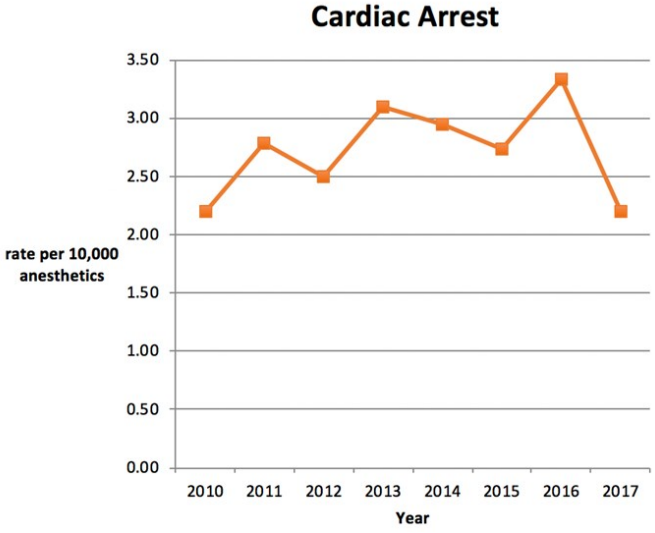
Total number of anesthetics	3,626,479		
Gender	Male	2,057,067	57%
	Female	1,569,295	43%
			0%
Age	0-1 month	57857	2%
	1-2 months	39875	1%
	2-3 months	35144	1%
	3-6 months	105599	3%
	6-12 months	236186	7%
	1-3 years	893469	25%
	4-8 years	1004801	28%
	9-12 years	517185	14%
	13-17 years	603198	17%
	18-20 years	132438	4%
ASA Status	1	912080	25%
	2	1531997	42%
	3	996764	28%
	4	154839	4%
	5	6238	0%
Emergency Status	Yes	218566	6%
	No	3407838	94%

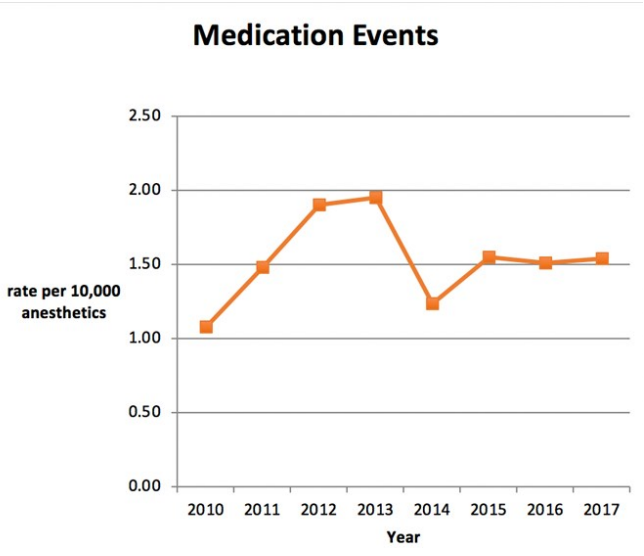
WAKE UP SAFE CONTINUED...

The serious adverse event rates listed below are expressed as a rate per 100,000 anesthetics. The rates are low but improvement is possible.

Event	Number	Rate per 10,000 Anesthetics
Serious Adverse Events, anesthesia primary cause	25	0.07
Serious Adverse Events, anesthesia secondary cause	70	0.19
Deaths in OR or within 24 hours, anesthesia primary cause	2	0.01
Deaths in OR or within 24 hours, anesthesia primary cause, and ASA of 1 or 2	0	0
Deaths in OR or within 24 hours, anesthesia secondary cause	35	0.1
Deaths in OR or within 24 hours, anesthesia secondary cause, and ASA of 1 or 2	3	0.01
Cardiac arrest anesthesia, anesthesia primary cause	214	0.59
Cardiac arrest anesthesia, anesthesia secondary cause	219	0.6

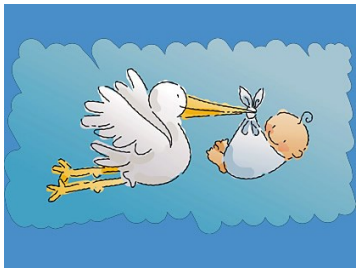
Some specific graphic markers include:





NEW BABIES IN THE DEPARTMENT

Please congratulate Dr. Pat Britell and family as they welcome Maximilian Tait! He was born on 7/24/2018, weighing in at 9 lbs, 3 oz.



Dr. Clark Sealy and family welcomed lovely Vivian! She was born on 8/7/18, weighing in at 7 lbs, 6 oz and 20 inches long. Vivian shares her father's birthday! Congratulations!

Please congratulate Emily and Josh Burton as they welcome Joshua William (Will) Burton II to the family. He was born on 7/12/2018, weighing in at 9 lbs, 6 oz.

WELCOME TO THE DEPARTMENT

Laura Seeback is excited to join the department as the new Fellowship and Medical Student Program Coordinator. She has been a part of the MUSC family for the past two and a half years, previously working in the Department of Psychiatry and Behavioral Sciences' Office of Continuing Education, Community and Alumni Relations. Laura grew up in coastal central Florida and moved to Jacksonville, where she attended the University of North Florida and obtained a BFA in painting, drawing and photography. She worked in commercial real estate in North Florida with national and international retailers on large scale, multi-market expansions before relocating to Charleston and shifting gears career-wise. Laura and her fiancée, Paige, a pediatric nurse, have a troupe of rescue cats that keep them busy and entertained. When she's not working or traveling throughout the Southeast to visit family and friends, Laura enjoys reading, SUPing (stand up paddle boarding), painting and exploring South Carolina.

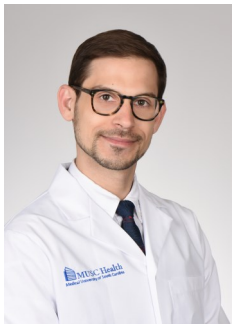
Grand Rounds for the Month of Septmeber

"Morbidity & Mortality Conference (OB)"
September 4, 2018
Kevin Draper, MD, Resident
Chris Wolla, MD, Resident
Dept. of Anesthesia & Perioperative Medicine
Medical University of South Carolina

"Maternal Sepsis"
September 11, 2018
Arvind Palanisamy, MD, Assistant Professor
Department of Anesthesiology
Washington University School of Medicine

"Topic TBA"
September 18, 2018
Rebecca Wineland, MD, Assistant Professor
Dept. of Obstetrics & Gynecology
Medical University of South Carolina

"Topic TBA"
September 25, 2018
Michael Marotta, MD, Assistant Professor
Dept. of Anesthesia & Perioperative Medicine
Medical University of South Carolina



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DEPARTMENT OF ANESTHESIA AND PERIOPERATIVE MEDICINE

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CHECK OUT OUR WEBSITE AT:
HTTP://WWW.MUSC.EDU/ANESTHESIA

Future Events/Lectures

Intern Lecture Series

September 6th—Ischemic & Valvular Heart Disease, Dr. Guldan, ART 3037

September 20th—Preserving Renal Function, Dr. Abro, SEI 314

CA 1 Lecture Series

September 5th—Local Anesthetics; Adjuncts to Anesthesia, Dr. Hebbar, CSB 429

September 11th—Neuromuscular Blocking Agents, Dr. Matos, CSB 429

September 18th—Anticholinergic Drugs; Cholinesterase Inhibitors, Dr. Stoll, CSB 429

September 26th—Peripheral Nerve Blocks; Anesthesia for Orthopedic Surgery, Dr. Bolin, CSB 429

CA 2/3 Lecture Series

September 3rd—Happy Labor Day—No Lecture

September 10th—Visiting Professor Lecture, All Residents, Dr. Palanisamy (Wash U), CSB 429

September 17th—What's New in OB Anesthesia, Dr. Hebbar, Moodle

September 24th—Management of High Risk Parturients & Anesthetic Implications, Dr. Roberts, Moodle

Grand Rounds

September 4th—Morbidity & Mortality Conference (OB), Drs. Draper and Wolla

September 11th—Visiting Professor Lecture, Dr. Palanisamy (Wash U)

September 18th—Topic TBA, Dr. Wineland

September 25th—Topic TBA, Dr. Marotta

I HUNG THE MOON

Please 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 Pompey. Thank you!

Lowcountry Heart Walk 2018
Saturday, September 29, 2018
Riverfront Park

Holiday Party 2018
Saturday, December 1, 2018
Carolina Yacht Club

Imagine 2020 Strategic Plan

We Would Love to Hear From You!

If you have ideas or would like to contribute to *Sleepy Times,* the deadline for the October edition will be September 21, 2018.