



SLEEPY TIMES



VOLUME 9, ISSUE 11 NOVEMBER 2015

Inside this issue:

-FAER Student Research Presentations at ASA	1-2
-Agency for Healthcare Research & Quality P30 Grant	3
-Meet New Faculty Member	3
-Congrats to Dr. Nelson for Becoming CCDS Certified	4
-Congrats on Chronic Pain Fellowships	4
-Congrats to Dr. Glentzer for Resident Excellence Award	5
-Congrats to Dr. Hilton on Being Elected to MUSC Faculty Senate and 2nd Vice President of SCSA	5
-Emergency Manual and Pediatric Critical Events Checklist Reminder	6
-Epic Documentation Update	7
-Underrepresented Student in Medicine Scholarship Thank You	8
-Lumbar Drain Management Protocol	9-12
-MUSC Health Board of Directors	12
-Recollections	13-15
-Grand Rounds	16
-I Hung the Moon	17

MESSAGE FROM THE CHAIRMAN:

-SCOTT T. REEVES, MD, MBA



This year's Annual Meeting of American Society of Anesthesiologists was held from October 24-27 in San Diego, California. It was a very successful meeting with multiple faculty presenting. For the past several years, MUSC's faculty have become increasingly sought after as lecturers and workshop leaders. Below is a summary of our contributions which does not even include the numerous committees on which we serve. Congratulations to all for another successful meeting.

The department also had the opportunity to sponsor two of our own students, Kayla and Kellie Bingham at this year's ASA and FAER leadership symposium.

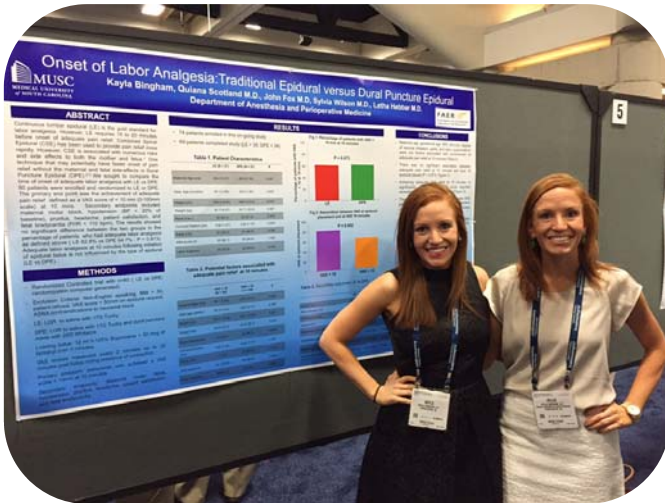
Saturday, October 24	Sunday, October 25	Monday, October 26	Tuesday, October 27
9:00 AM - 4:10 PM Finley – Hands-on Workshop (802) Basic TEE Workshop Workshop Station 7, 8, 9, 10: Normal & Pathologic LV (walls & EF) [Upper 30A-30B]	9:00 AM - 12:00 PM Abernathy – Hands-on Workshop (813) – Intermediate Transesophageal Echocardiography; <i>Echo Outside of the Cardiac OR</i> ; Finley (spkr) – <i>When the Area and Gradients Don't Agree</i> [Upper 30A-30B] Hand/Tobin – Hands-on Workshop (823A) – Perioperative ACLS Simulation [Hall B1]	11:00 AM - 12:00 PM Heinke – Clinical Forum (CF10) – Anti-Coagulated Patient for a Regional Procedure; <i>The TAVR Patient on Clopidogrel/Aspirin</i> [Upper 8]	9:00 AM - 12:00 PM Wilson – Hands-on Workshop (834B) - Peripheral Nerve Block: Ultrasound, Simulation & Stimulation [Hall B1]
9:00 AM - 12:00 PM Hand/Tobin – Hands-on Workshop (810A) – ACLS Simulation Echocardiography Guidelines [Hall B1]	1:10 - 4:10 PM Hand/Tobin/Field - Hands-on Workshop (823B) – Perioperative ACLS Simulation [Hall B1]	1:10 - 4:10 PM Wilson – Hands-on Workshop (834A) – Peripheral Nerve Block: Ultrasound, Simulation & Stimulation [Hall B1] Nelson – Hands-on Workshop (832) – Pacemakers & ICDs in Perioperative Care [Upper 30C-E] Field – Hands-on Workshop (836) Critical Care Ultrasonography for Perioperative Physician [Hall B1]	1:00 - 4:00 PM Wilson – Hands-on Workshop (834B) - Peripheral Nerve Block: Ultrasound, Simulation & Stimulation [Hall B1]
1:10 - 4:10 PM Hand/Tobin – Hands-on Workshop (823A) – Perioperative ACLS Simulation [Hall B1]	2:00-5:00 PM (3:30 PM Oral presentation) Kayla & Kellie Bingham (Summer Research Students) - FAER MSARF Symposium & Oral Presentations – [Hall B1]		3:15 - 5:15 PM Nelson – 120 Minute Refresher Course Lecture (432) – Ventricular Assist Devices in Patients Undergoing Non-cardiac Surgery [Upper 6A]
4:00 - 5:30 PM Finley – 90 Minute Panel (PN115) – Anticoagulation & Coagulation in Cardiac Surgery; <i>Heparin & Heparin Alternatives</i> [Upper 2] Nelson – 90 Minute Panel (PN115) – Anticoagulation & Coagulation in Cardiac Surgery; <i>Heparin Sensitivity & the ACT: Where Are We Now?</i> [Upper 2]			
	7:00 PM MUSC Dinner – Fogo DE Chao 668 6 th Ave – 619 338-0500		

**FAER STUDENT RESEARCH PRESENTATIONS AT ASA
BY: KAYLA BINGHAM AND KELLIE BINGHAM**

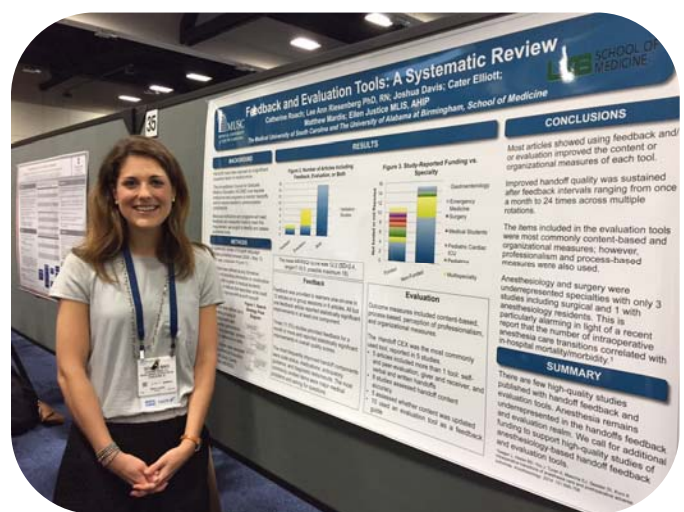
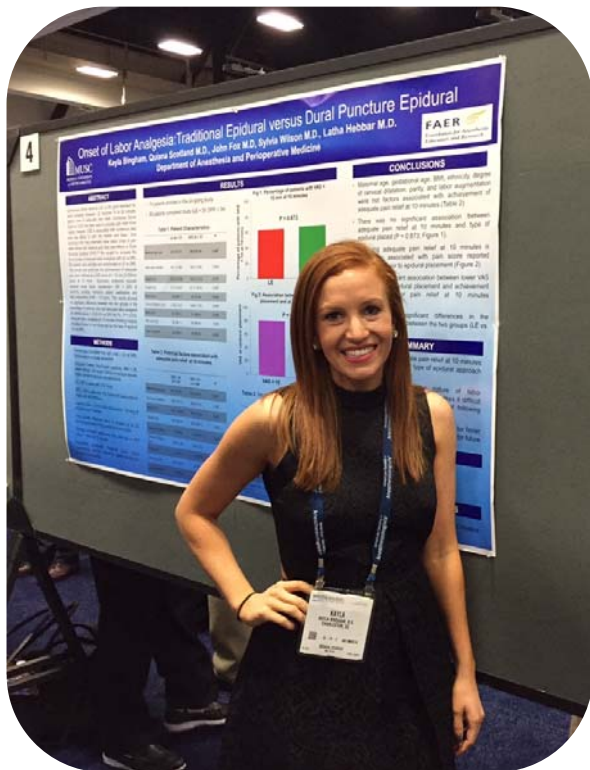
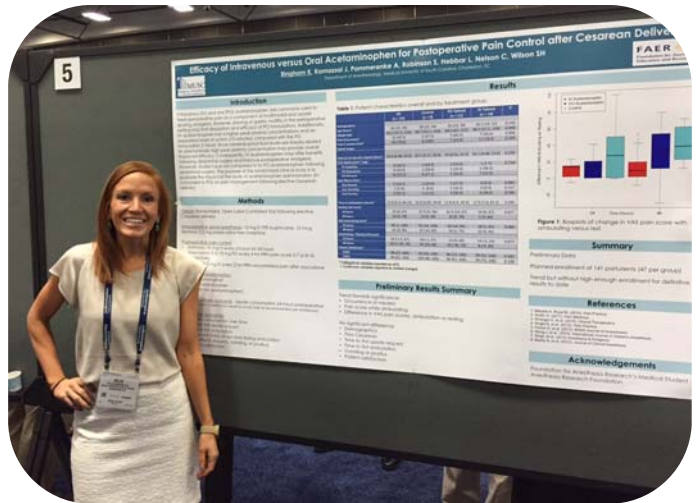
What a whirlwind experience the ASA Conference in San Diego, CA was for the two of us! Once we arrived, we attended the FAER Reception at the W Hotel's Rooftop Bar. Seeing a fire pit made of "wooden" chairs is not something we will soon forget! We were fortunate to meet attending physicians, residents, and medical students from around the country at the reception. Learning about their different experiences and journeys was very humbling. On Sunday, we had the privilege of presenting our research projects at the FAER Symposium. Dr. Sylvia Wilson went above and beyond, coming to our Poster session to wish us luck, give us moral support, and answer any questions that we had.

FAER STUDENT RESEARCH PRESENTATIONS AT ASA CONTINUED . . .

She also made sure we spoke with Dr. Paloma Toledo, who is on the FAER Board of Directors and the moderator for the FAER Symposium. Furthermore, Dr. Latha Hebbar took the time to send us words of encouragement before our presentation, even though she was not able to make it to the conference herself. We felt so overwhelmed by all the love and support the MUSC Department of Anesthesiology has shown us! It was such an honor to present at the ASA Conference this year, but our greatest privilege was being able to represent MUSC's Department of Anesthesiology. It was certainly an opportunity we will never forget!



MUSC FAER Students, Kayla and Kellie Bingham



MUSC Student Catherine Roach Who was Assigned a Project at UAB

CONGRATULATIONS TO DR. ERIC NELSON FOR BECOMING A CERTIFIED CARDIAC DEVICE SPECIALIST

Dr. Nelson passed the International Board of Heart Rhythm Examiners Certification Examination for Competency in Cardiac Rhythm Device Therapy. He is one of nine anesthesiologists in the country with this designation.

Eric identified the need for anesthesiologists to learn the required skills to care for perioperative patients with implantable pacemakers, defibrillators, and implanted cardiac devices. He worked hard to gain the knowledge and skills necessary to do this work. His journey can be a great lesson to us all that not all knowledge is gained in residency.

Congratulations Eric. Keep up the great work.



CONGRATULATIONS ON CHRONIC PAIN FELLOWSHIPS ANNOUNCED

I am happy to report that three of our residents received notification in October that they have matched into highly competitive Chronic Pain fellowship programs. Please join me in congratulating Drs. Roden, Herndon, and Black.

Dr. Roden – University of North Carolina

Drs. Herndon and Black - Wake Forest

This is a testimony to the educational program offered at MUSC and our chronic pain faculty, Drs. Rick Smith and Ryan Nobles.



CONGRATULATIONS TO DR. MARK GLENTZER FOR RECEIVING THE RESIDENT EXCELLENCE AWARD



CONGRATULATIONS TO DR. EBONY HILTON ON BEING ELECTED TO THE MUSC FACULTY SENATE AND AS 2ND VICE PRESIDENT OF THE SOUTH CAROLINA SOCIETY OF ANESTHESIOLOGISTS

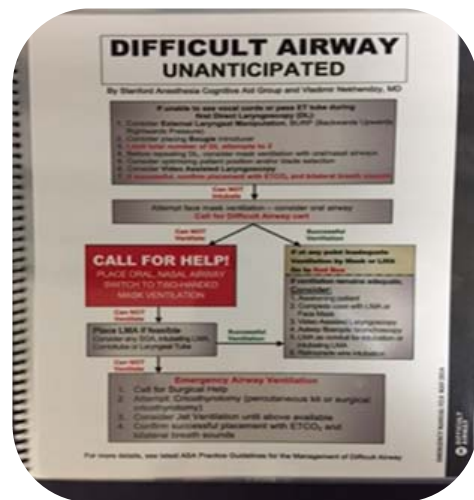
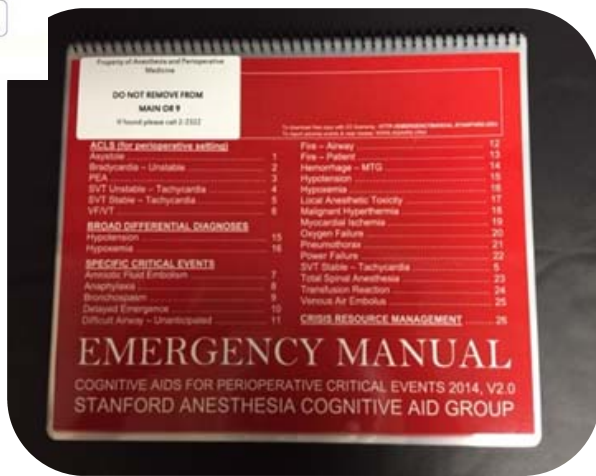


DID YOU KNOW WE HAD EMERGENCY RESOURCES?

EMERGENCY MANUAL COGNITIVE AIDS FOR PERIOPERATIVE CRITICAL EVENTS BY: DR. LAURA ROBERTS



An emergency manual is located in every operating room at UH, ART, and RT sites and some NORA locations on the anesthesia workstations. These manuals contain checklists for 25 most common perioperative emergencies and are designed to be a reference and guide for care during a crisis event. Additionally, these manuals can be used to facilitate teaching perioperative crisis management to other staff, residents and students. Please remember this resource and take advantage of this readily-available information! If you have any questions about these manuals please contact Laura Roberts, MD.



PEDIATRIC CRITICAL EVENTS CHECKLIST BY: DR. MICHELLE ROVNER



The Pediatric Critical Events checklists contains intraop emergencies and their treatment plans. They are outlined very well in this booklet and may be utilized in the event of an emergency.

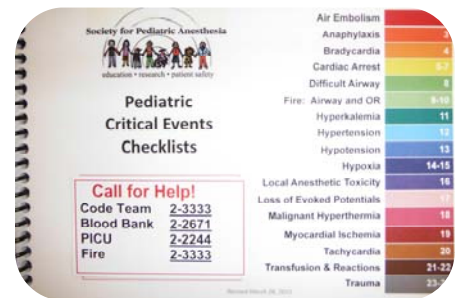
The Pediatric Critical Events Checklists are in the following locations:

Main OR locations: 2, 4, 5, 9, 11, 16, 17, 18, 19, 20.

Outside OR locations: MRI, Peds Cath labs, IR room 5, Peds GI rooms, Neuro angio, the periphery spare ventilator, radiation overflow room (room of requirement), radiation oncology

The booklets are attached to the right side of the anesthesia machines. If you have other locations where you feel they should be kept, please let me know. Please let me know if you have any questions or concerns.

Thank you very much.
Michelle Rovner, MD

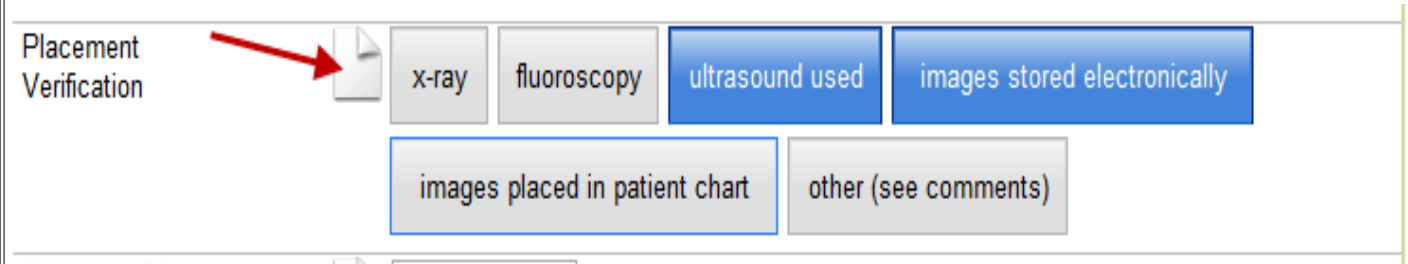


EPIC DOCUMENTATION UPDATE

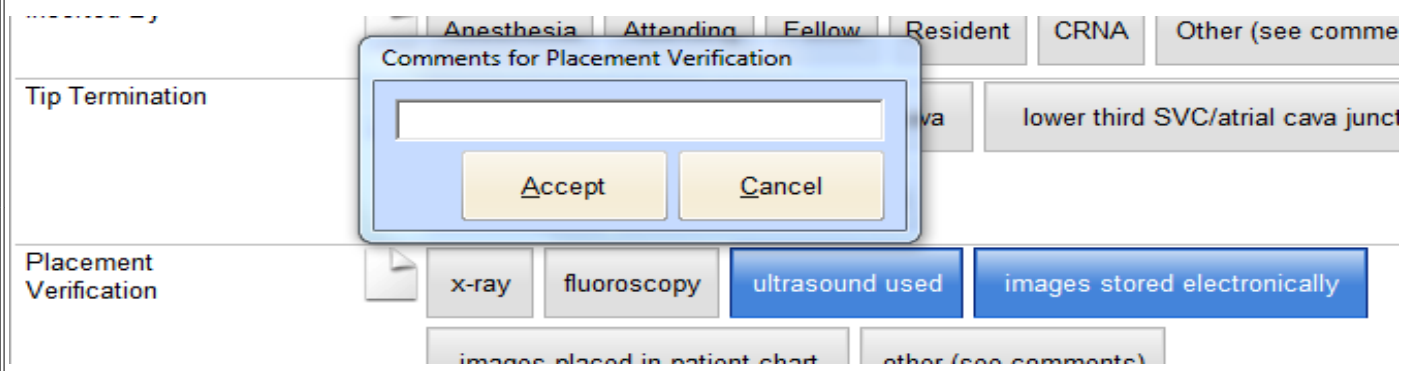
Anesthesia Providers,

We recently identified an issue with ultrasound guidance documentation for line placement when it is documented on the LDA (lines, drains, airways). A description of the visualization process must be documented to support billing, and that is not available via LDA documentation. Per our Epic team, the procedure note that includes all required options for ultrasound guidance that will transmit to the LDA will be available in a few months. Until then, we have decided on a work around to ensure revenue is not lost for this service.

When documenting ultrasound guidance for line placement on the LDA, please be sure to click on “ultrasound used” and “images stored electronically” (if they are). To document the description of the visualization process, click on the icon that looks like a piece of paper below.



When you click the icon, a comment box will appear (see below), and this is where you will need to document a description of the visualization process. As an example, in PICIS we used the following language: *Real-time ultrasound used to identify specified target vein and its nearby artery prior to cannulation. Subsequent images confirmed placement of guidewire within the target vein prior to catheter placement.*



**UNDERREPRESENTED STUDENT IN MEDICINE SCHOLARSHIP
THANK YOU BY: WILLY GAMA**

August 26, 2015

Dr. Scott Reeves
167 Ashley Avenue, Suite 301
Charleston, SC 29425-9120

Dear Dr. Reeves,

I am writing to thank you for your generous scholarship. I was happy to learn that I was selected as the recipient of the Underrepresented in Medicine Scholarship. I am impressed with MUSC's commitment to diversity. As a Latino medical student, it was an honor to be selected and to be given the opportunity to expand my medical education to a new atmosphere.

Being awarded this scholarship helped ease the monetary burden of my medical education and made an already great month at MUSC even better.

According to the latest government census only 15% of Latino adults in the United States have attained a bachelor's degree. I imagine that the number of advanced degrees and medical doctorates are even lower. Scholarships like this one make a direct impact in the lives of groups of people who are underrepresented in medicine, and I admire MUSC's and your department's efforts towards promoting diversity.

Once more, I would like to thank you,



Willy Gama
Indiana University School of Medicine, MS-IV
402 N Meridian St.
Apt 507
Indianapolis, IN 46204

LUMBAR DRAIN MANAGEMENT PROTOCOL

BY: ALAN FINLEY, MD



Background

Lumbar drains are indicated during open and Endovascular Thoracoabdominal Aortic Aneurysm repairs and some complex fenestrated Endovascular Abdominal Aortic repairs to decrease the risk of spinal cord injury. The theory is to optimize spinal cord perfusion pressure (SCPP) and thus optimize blood flow to the thoracic spine. Calculation of SCPP is:

SCPP = Mean Arterial Pressure – CSF pressure or CVP (whichever is higher)

Risk Factors for Spinal Cord Injury during TEVAR

- Extensive Coverage of thoracic aorta by stent
- History of occlusion of the Hypogastric Arteries or the Left Subclavian Artery
- Severe atherosclerotic disease of the descending aorta
- History of AAA repair
- Emergent Procedure
- Prolonged Hypotension

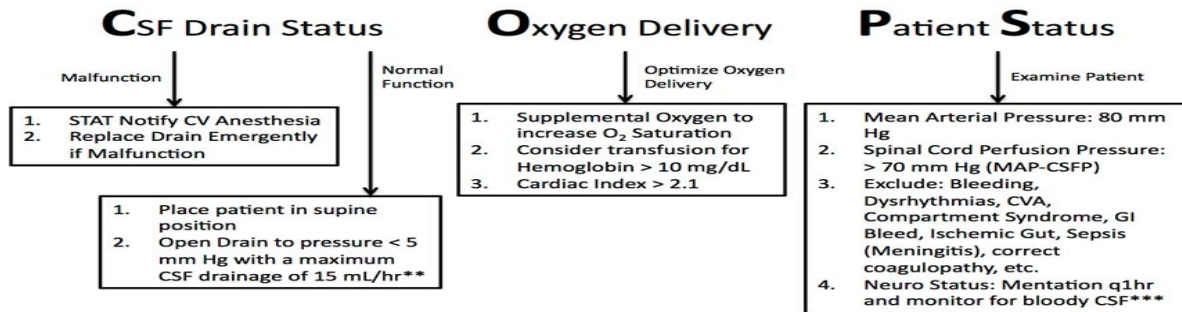
Drainage Protocol

1. Maintain mean arterial pressure per physician order
2. Prophylactic Drainage Protocol
 - Set Lumbar drain to drain for CSF pressure > 10 mm Hg to a maximum of 10 mL/hr or 40 mL over 4 hrs
 - If 10 mL of CSF is drained in less than 1 hour, clamp the drain until the beginning of the subsequent hour
 - While drain is clamped, patient's Head of Bed may be elevated.
3. Neurologic Deficit Drainage Protocol
 - Open Drain to pressure < 5 mm Hg to a maximum of 15 mL/hr or 60 mL over 4 hrs
 - If 15 mL of CSF is drained in less than 1 hour, clamp the drain until the beginning of the subsequent hour
 - If CSF pressure remains > 5 mm Hg despite 15 ml/hr of CSF drainage, discuss adjusting the absolute drain age amount with both attending Surgeon and Intensivist
 - Follow COPS protocol (See Figure)
 - Place copy of COPS protocol at patient's bedside

LUMBAR DRAIN MANAGEMENT PROTOCOL CONTINUED . . .

BY: ALAN FINLEY, MD

COPS Protocol for Delayed Neurologic Deficit*



* Modified Tarlov: 0=no movement, 1=movement without gravity, 2=movement against gravity, 3=Stand with Assistance, 4=walk with assistance, 5=no deficit

** Adjustments of absolute drainage only made in consultation with both attending Surgeon and Intensivist

*** Bloody CSF or blood-tinged CSF: Clamp drain and notify physician, Correct Coagulopathies if present, Any new Neuro changes should prompt obtaining a STAT CT Scan to exclude intracerebral hemorrhage

Nursing Care

- Maintain strict aseptic technique when dealing with the lumbar drain
- Accessing the sterile system should only be performed with a physician order
- Monitor the patients neurologic status every hour, which at a minimum should include:
 - Level of Consciousness and cranial nerves
 - Sensory exam
 - Peripheral motor strength (bend knees and lift legs off bed)
 - Presence of headache
 - NOTE: MD should be immediately notified if any change in neuro status occurs
- Level transducer at phlebostatic axis, accurate measurements are obtained in the supine position
- Monitor CSF Pressure q1 hour
 - Do NOT use a pressure bag for transducing to avoid the risk of flushing normal saline into the CSF
- Assess lumbar drain insertion site twice daily
- To avoid excess drainage during patient repositioning, clamp drain first, reposition the patient, re-level the drain, then unclamp to drain
- During drainage, patient must be in the supine position or with only a slightly elevated head, Patient may be allowed to get OOB to chair, but the drain must be clamped during this period to avoid excess CSF drainage
- When leaving the unit, the lumbar drain should be clamped to avoid excess CSF Drainage
- If new evidence of blood in the CSF is present, clamp drain and notify physician

LUMBAR DRAIN MANAGEMENT PROTOCOL CONTINUED . . .**BY: ALAN FINLEY, MD****Troubleshooting**

1. No or decreased CSF drainage

- Maintain patient in a neutral position, avoid hyperflexion of back and rotation of hips as these positions may impede drain outflow
- Do not flush drain
- To test for patency, the lumbar drain can be temporarily lowered to assess if CSF can be drained
- If no CSF drainage is noted despite the above measures, notify the physician

2. Excessive CSF drainage (> 15 mL in 1 hr or > 40 mL in 4 hrs)

- Ensure drain leveled at the appropriate level
- Closely monitor neurologic status
- If excessive drainage occurs, notify the physician

3. Break in sterile system

- Consider system contaminated
- Turn off stopcock closest to patient and
- If continued CSF drainage is indicated, a new lumbar drain will need to be placed

Complications

1. Excessive Headache

- CSF drainage can result in a spinal headache, which is typically positional (worse in the sitting position)

2. Cerebellar Herniation

- Associated with rapid CSF drainage
- Signs/Sx – decrease in level of consciousness, irritability, confusion, paresis, posturing, changes in pupil size or reactivity
- Suspicion for impending cerebellar herniation should prompt immediate clamping of drain and notification of physician

3. Intracranial hemorrhage (ICH)

- Signs/Sx – new appearance of blood in CSF (note blood may be present immediately after placement)
- Suspicion for ICH should prompt immediate clamping drain, physician notification and a stat CT Scan

4. Epidural hematoma

- Associated with administration of anticoagulant medications and coagulopathies at the time of lumbar drain insertion and removal
- Subcutaneous heparin will be used for DVT prophylaxis, all other anticoagulants should be held while the lumbar drain is in place
- Antiplatelets????

LUMBAR DRAIN MANAGEMENT PROTOCOL CONTINUED . . .

BY: ALAN FINLEY, MD

5. Meningitis

- Signs/Sx – fever $>38^{\circ}$, redness, swelling or drainage at insertion site
- Signs of meningeal irritation include stiff neck, headache, nausea, vomiting, photophobia, decreased level of consciousness
- Suspicion of meningitis should prompt the administration of antibiotics, drawing CSF cultures, and removal of lumbar drain

6. Catheter Fracture

- Avoid bending or kinking of catheter
- Do not secure tubing to the bed
- See above for management of a break in the sterile system

Removal of Lumbar Drain

1. All Lumbar Drains are to be removed by a member of the anesthesia team
2. DVT prophylaxis should be held prior to removal of drain
3. Consider correcting coagulopathies if present
4. When removing, the patient should be placed in the lateral decubitus position and flex the lumbar spine to facilitate drain removal. If the drain is not removed easily, reposition the patient. Pulling harder increases the risk of catheter fracture.

MUSC HEALTH BOARD OF DIRECTORS

The MUSC Health Board of Directors met for the first time on October 7, 2015. It was largely an organizational meeting with approval of the articles of incorporation, bylaws, conflict of interest and industry relations policy, and application for non-profit status. The officers were elected: **Dr. Donald Johnson** - Chairman, **Mark Sweatman** - Secretary, **Dr. Scott Reeves** - At Large Director of the Executive Committee. The CEO was formally selected - **Dr. Patrick Cawley**. The committee structure was determined with the following committees: Executive, Finance, Audit/Compliance, and Clinical Integration. The members of the committees will be a combination of Board of Director members and MUSC-P / MUHA leaders. These will be determined in the next several weeks. The board also approved the development of the MUSC Health Alliance, which will be an accountable care organization for MUSC Health.



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

We continue our monthly series of Recollections learning about endotracheal tubes in anesthesia and spinal anesthesia.

ENDOTRACHEAL TUBES – ENDOTRACHEAL ANESTHESIA

Endotracheal tubes were scarce in Charleston until after Dr. John Brown arrived here as the first anesthesiologist on September 1, 1949. In his recollections of his early days in Charleston, he stated that upon his arrival he found only two adult endotracheal tubes in the hospital, neither of them having cuffs. He soon remedied that situation.

To the best of my knowledge, the first endotracheal anesthesia in the city was begun after Dr. Edward F. Parker returned from a surgical residency at Vanderbilt University and taught a nurse anesthetist, Ora Derrick (Johnson), the technique of insertion of endotracheal tubes. For almost a decade after that, endotracheal anesthesia was scarce here in Charleston.

To the best of my knowledge, woven nylon tubes were the first ones available here. These tubes had no cuffs, and tended to become soft after cleaning numerous times or when they reached body temperature while in the patient's airway. This led to kinking of the tube or its being compressed to reduce the size of the airway. Many accidents occurred due to this problem. The endotracheal tube adaptor was usually used on the outside of the tube instead of inserted into the lumen because the tube would not stretch properly and the connector would reduce the size of the lumen considerably. These tubes had a tendency to fray at the tip and this would often act as a flutter valve, the valve closing upon inhalation and opening on exhalation. It was not always easily diagnosed and could cause airway obstruction. Because the tubes had no cuff, a packing was put into the pharynx to prevent leaking back around the airway and losing the anesthetic agent as well as the oxygen opening on exhalation.

Soon, latex rubber cuffs were available for endotracheal tubes but there could be significant problems with the cuffs. When the nylon tube became moist within the trachea, a cuff had a tendency to slip and sometimes would occlude the end of the endotracheal tube. Other times the cuff would almost occlude the lumen of the tube because it was exerting more inward pressure than the walls of the nylon tube could withstand and the tube lumen was therefore significantly reduced.

Endotracheal tube connectors and anesthesia machine fittings were not standard, and there were at least two and possibly three different sizes connectors which were not interchangeable. This would certainly cause problems when the patient was anesthetized, intubated, and connection could not be made properly to the anesthesia machine. It was some years before connectors became standardized. When red rubber endotracheal tubes became available, they were considerably better and safer than the nylon tubes. It was not long before one could get these red rubber tubes with built on latex rubber cuffs. Endotracheal tubes of various types of plastic soon became available and are in use also today. As resident in 1954-56, we learned to use endotracheal tubes fairly well, usually intubating the patient using the muscle relaxant curare or using only depth of anesthesia to obtund reflexes. (I had the advantage of learning all of this from Dr. John Brown while I worked on anesthesia with him as a medical student.) In those early years, it was not unusual for a nurse anesthetist not to intubate a patient for operations on the kidney or in the lateral position. Using fairly deep ether anesthesia and an oral airway, this is not a bad position to have a good control of the patient's airway. I have anesthetized more than a few patients in the lateral position without the use of an endotracheal tube.

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

Another method of endotracheal anesthesia was to induce the patient with open drop vinethene and ether, intubate the patient and use the regular open drop anesthesia mask over the patient's face while the patient, usually a child, breathed through the endotracheal tube.

Most of the ear, eye, nose and throat physicians were adamantly opposed to using endotracheal tubes on their patients, and this was something that was slow to be changed. When we felt an endotracheal tube essential, the patient was intubated and the surgeon mumbled and complained. Tonsillectomies and adenoidectomies were rarely done with the use of endotracheal anesthesia, and after the residence years, we did literally hundreds of T& A's with intravenous pentothal, a small amount of curare, and insufflation of nitrous oxide-oxygen.

There was one episode that I can recall which reinforced the idea of one ENT specialist that he never wanted one of his patients to have endotracheal anesthesia. An anesthesiologist was anesthetizing a pre-teenage girl for a procedure which I cannot recall, and the child's temperature began rising and was out of control. The child was sponged with alcohol and then taken in the arms of the anesthesiologist to the scrub sink where cool water was run over her entire body. These methods of cooling were of no value and the child died within a short period of time. Death was undoubtedly a case which we know now as "malignant hyperthermia." Postoperative fever had been recognized and referred to in Dr. Arthur E. Guedel's book, "Inhalation Anesthesia," published in 1937. All of the cases with which Dr. Guedel was familiar had received open drop ether. To see "that poor child being washed in the sink and that tube hanging out of its mouth" was enough to cause that particular ENT specialist to remain uncomfortable for many years afterwards when he saw a child with an endotracheal tube. This case certainly did nothing to advance the use of endotracheal anesthesia in Charleston.

During my student and early residency training, insertion of an endotracheal tube was an extremely difficult task for most of the nurse anesthetists with whom I was acquainted at the time. It was not unusual for patients to die during induction or not long after induction during some relatively minor procedure, most probably due to unrecognized or inadequately treated respiratory obstruction. One anesthetist of my acquaintance almost always had difficulty in using an endotracheal tube, so any measure that could be taken to avoid its use was the usual course followed. This lady was "elderly," who acted as if she had been dealt a raw deal in life, although she was a dear person. She hated with a passion to be called at night to anesthetize a drunken patient who had been in a brawl and had been shot, stabbed, cut, or otherwise molested with some deadly weapon. When she was called at night she came in her nicely starched uniform and was always the epitome of the well-dressed nurse. Late one Saturday night when she was called, I was in the hospital and I came to the operating room to see if I could help her with anything. Maybe, I did, maybe, I didn't. She was grumbling and grouchy all of the time while preparing for the case and as soon as she was ready she gave the patient a "loading dose" (possibly "overloading" dose) of evipal and syncurine, a barbiturate and relaxant mixed in the same syringe. She then went to the head of the table, looked into the patient's mouth with the laryngoscope, inserted the endotracheal tube with the greatest ease, half grunted and half sighed and plopped down on her anesthesia stool. "There, you drunk son-of-a bitch," she said. She was most pleased with her endotracheal tube performance and the patient had an excellent airway and a very good anesthesia throughout the remainder of the case. So much for endotracheal tubes and endotracheal anesthesia in the "good old days" when anesthesia was bad.

In the 1990's it appears that practically all of the "allied health professionals" want to become masters of inserting endotracheal tubes into patients. As it has always been, this is not a task which is easily mastered, and it is never mastered well by some.

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

SPINAL ANESTHESIA

The date of use of the first spinal anesthesia in South Carolina is unknown to me, but I have a copy of a report from the S.C. State Medical Journal dated December, 1923. In Charleston, this anesthesia was used extensively by Dr. William H. Prioleau during the years of WW II in the early 1940's.

Drugs utilized were novocaine, which was obtained as the crystal preparation, and pontocaine (tetracaine). These drugs could not be sterilized by heat because they would decompose and could not be utilized for anesthesia. The ampules were soaked in a "Bard-Parker" solution, which was formaldehyde solution. This was a caustic solution and had to be cleaned completely from the ampules before they could be utilized. A big hazard of this solution was the fact that a pontocaine ampule could have a very small crack in the glass and a tiny bit of the formaldehyde seep into the ampule.

It would take very small amounts of this solution to cauterize any nerves root which it touched. Even though the patient was a few years before my experience in anesthesiology, I am aware of one patient who had either alcohol or formaldehyde solution injected during spinal anesthesia and he was paralyzed and remained a paraplegic. I became aware of the case when a patient of mine, father of a colleague, a prominent lawyer (GLBR, Sr.) developed carcinoma of the prostate and I was prepared to administer spinal anesthesia to him for biopsy and then later operation. When he told me this tale, it gave me second thoughts, but after long discussion with him, we went ahead with the spinal anesthesia as planned. (He told me that he was prepared in every way he thought to defend physician, but when they rolled the paraplegic patient into the courtroom in a wheelchair, he hurriedly worked on settling the case as well as possible for both parties. He said that it was obvious when the patient came in and the jury saw him, this lawyer's case was lost on the spot). Although I have seen arachnoiditis several times over the years, I have never seen a patient paralyzed from spinal anesthesia.

Spinal needles were autoclaved or soaked in either alcohol or formaldehyde and treated just as other needles were treated. There were sharpened by the central service personnel when they became dull. No. 18 gauge and 20 gauge needles were the ones utilized, with the 18 gauge being utilized for spinal anesthesia only if the lumbar puncture was difficult while using a 20 gauge needle.

Spinal headaches were rare, but when they did occur, they were usually treated with mild analgesics and bed rest. If the headache persisted, it would be treated with an injection of saline into the epidural space and this would stop the headache almost immediately.

No. 18 gauge needles were often used in the venereal disease clinic, obtaining samples of spinal fluid for examination for tests for syphilis. The patient sat in a chair backwards, with his arms over the back of the chair and the lumbar puncture was made while he was in that position. I am sure that headache did occur, but I was never aware of one in a patient in that clinic.

From the beginning of use of spinal anesthesia, the hazards which cause paralysis have been either infection (causing arachnoiditis) or injection of the "wrong" drug or solution into the sub-arachnoid space.

GRAND ROUNDS FOR THE MONTH OF NOVEMBER

**“Management of Rib Fractures Pain:
Why, When, How & Whom ”
November 3, 2015
Richa Wardhan, MD
Regional Fellowship Director, Anesthesia
Yale School of Medicine**



**“Department of Research Symposium/Presentations”
November 10, 2015
Ryan Gunselman, MD and Will Hand, MD
Assistant Professors
Medical University of South Carolina**

**“LVAD Management in the Perioperative Period”
November 24, 2015
Stephanie Whitener, MD
Assistant Professor
Medical University of South Carolina**





DEPARTMENT OF ANESTHESIA AND
PERIOPERATIVE MEDICINE

Medical University of South Carolina

Email: kinmic@musc.edu

Phone: 843-792-7503

Fax: 843-792-9314

CHECK OUT OUR WEBSITE AT:

[HTTP://WWW.MUSC.EDU/ANESTHESIA](http://www.musc.edu/anesthesia)

Future Events/Lectures

Intern Lecture Series

5/Nov—Acute Oliguria, Dr. Sabbagh

19/Nov—Management of CVA, Dr. Wester

CA 1 Lecture Series

4/Nov—Peripheral Nerve Blocks and

Anesthesia for Orthopedic Surgery, Dr. Wilson

11/Nov—Spinal, Epidural, and Caudal Blocks,

Dr. Gunselman

25/Nov—Happy Thanksgiving! No Lecture!

CA 2/3 Lecture Series

2/Nov—Paravertebral Blocks, All Residents,

Dr. Wardhan (Yale)

9/Nov—Career Planning, All Residents, Dr.

Sabbagh

23/Nov—Cardiopulmonary Resuscitation in

the Perioperative Period (Barash Ch. 58),

Dr. Rieke

Grand Rounds

3/Nov—Management of Rib Fractures Pain:

Why, When, How, & Whom, Dr. Wardhan

(Yale)

10/Nov—Departmental Research

Symposium/Presentations, Drs. Gunselman/

Hand

17/Nov—Subspecialty Meetings

24/Nov—LVAD Management in the

Perioperative Period, Dr. S. Whitener



I HUNG THE MOON

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

Thanks so much!!

Keara Cox and Shelley Richardson, CRNAs; Rob Ingram and Lisa Crusenberry, Anesthesia Techs— Thank you for pitching in on a difficult trauma case! Excellent work!

Grayce Davis, MD— Valiant assistance during a very taxing trauma case.

Molly Sekar, Anesthesia Tech— Helping environmental services with room turnovers at RT so they could enjoy their lunch. It was not unnoticed! Thanks!

Kevin Massey and Larry Banks, Anesthesia Techs— Coming in on short notice to pick up a last minute shift. Thank you so much!

Hercules Brown, Anesthesia Tech— Thanks for your time and effort in cleaning and organizing our work room!

Lucy Cofran, Anesthesia Tech— Looking for all the heart and vascular cassettes on Friday. They contain a vial that must be changed weekly and we got them all this week!

Treffle Beaupre, Anesthesia Tech— Picking up extra shifts to help the team out!

Ali Greer, Anesthesia Tech— For always checking dates when returning drugs to the pharmacy. Also, cleans all drugs out of pyxis to return to pharmacy each day! Thanks!



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

November 2015

Standard of the Month

**Speak up or intervene when
workplace bullying or
discrimination is observed.**

We Would Love to Hear From You!

If you have ideas or would like to contribute to *Sleepy Times*, the deadline for the December edition will be November 23, 2015.