MESSAGE FROM THE CHAIRMAN

As many of you know, basketball reigns supreme in my household. My younger children have been playing since the age of three. Carolyn (age 16) is a varsity player for Wando and has a banner in Mt. Pleasant’s city hall showing her playing at age 4. After an incredible run at Cairo Middle School, Townsend (age 14) hopes to make the Wando team this year. Contrary to when I was growing up, it is a yearlong sport with training, conditioning, school ball and travel leagues.

You can only image the excitement that occurred when it was announced that the Charlotte Bobcats where coming to town to play the Cleveland Cavaliers. The two biggest superstars in the sport would be present in Labron James and Shaquille O’Neil. Cathy and I did our part by purchasing tickets and off we went to the North Charleston coliseum. Labron James in particular put on a show.

As I sat watching the game, I drifted off to thinking about the department. We have come a long way in the past four years. Our sub-specialization has allowed us to develop faculty superstars in the areas of transplantation, regional, pediatrics and adult and pediatric cardiothoracic anesthesia just to name a few. Our CRNAs are also becoming more specialized. However, even with the development of sub-specialization, we still practice a team sport. Cleveland rode the back of Labron to the NBA finals this year only to be swept. Why? Because one against five does not work.

The department is very fortunate to be able to put an extremely competent team of faculty, CRNAs and residents in the operating rooms at ART, RT, and UH each day. Our increase “superstar” capacity gives us more expertise each day but our whole team approach (just like in basketball) allows us to complete a challenging schedule (win the game). I want to thank you all for the compassionate team care you give our patients day in and out.

The Charlotte Bobcats must depend on the team in order to be competitive.
John E. Mahaffey, MD Lecturer
Department of Anesthesia & Perioperative Medicine

“Patient Safety & Quality...Embedding it into our culture”
Monday, November 23, 4:00pm

“Healthcare Reform and How it Affects You”
Grand Rounds Tuesday, November 24, 6:30am

Joanne Conroy, MD
Chief Health Care Officer
Association of American Medical Colleges (AAMC)

Monday, November 23, Clinical Science Building, Room 429
Tuesday, November 24, College of Health Professions (CHP) Room 204 A

MUSC Health
ANESTHESIA & PERIOPERATIVE MEDICINE
DR. SUSAN HARVEY NAMED ASSOCIATE EXECUTIVE MEDICAL DIRECTOR FOR PERIOPERATIVE SERVICES

Dear MUSC Medical Staff:

I would like to formally announce Dr. Susan Harvey’s promotion to Associate Executive Medical Director for Perioperative Services. This position is effective immediately and in this role, Dr. Harvey will have daily oversight of the operating rooms and perioperative areas. She is also responsible for monitoring quality/safety and resource utilization in these areas in addition to leading IMPROVE teams. She will work with other hospital leaders in these areas to ensure the high standards of MUSC Excellence.

This is a new role at MUSC Medical Center moving the medical directorship of the ORs to a more visible position and to work closer with senior leaders in managing the ORs and perioperative areas.

Dr. Harvey received her M.D. from MUSC and completed her residency at MUSC as well. She is an Associate Professor in the Department of Anesthesiology and Perioperative Medicine. She has served in numerous leadership roles at MUSC, including Vice Chair of Clinical Affairs of the department and treasurer of UMA. She recently completed the prestigious AAMC’s Executive Leadership in Academic Medicine fellowship.

Please join me in welcoming Dr. Harvey to this new role. She is superbly qualified and I look forward to working with her.

Sincerely,

Patrick J. Cawley, MD, Executive Medical Director

MEET THE NEW RESIDENCY PROGRAM COORDINATOR

Please help us in welcoming Leslie Flower as the new Residency Coordinator!

Leslie Fowler, M.Ed.

As a native Charlestonian, I appreciate the rich history and culture of the Holy City where I was born. It’s hard for me to think of living anywhere else. After completing high school, I attended Clemson University and graduated with a degree in Secondary Education with an emphasis in Psychology and Sociology. I came back to the city I love to teach middle school for the Charleston County School District. In 2005, I went back to school and earned a master’s degree in education, which led me to working with gifted and talented learners.

However, after eleven years of teaching, I felt a pull to be in medical education, especially after my mother was diagnosed with stage four breast cancer. I saw her not only struggle with the disease, but with a system that sometimes forgot she was a person not a diagnosis. Being a part of a teaching hospital affords me the opportunity to help improve the system.

I live in Mount Pleasant with my husband Dean, a police officer, my two children, Stone-age 4½ and Sterling- age 2½. Ettore, our dog, and Calhoun, our cat, are our boys too. Our children keep us active and we think of them as little gifts. When we have time, we enjoy boating, fishing, and watching ACC football.

For the past 15 months I have worked in the MUSC College of Medicine Dean’s office primarily helping coordinate a course for first year medical students. Interestingly, first year students aren’t much different than my middle schoolers! I am truly looking forward to my new position as Residency Coordinator and I can’t wait to learn more about how residents are trained, and count myself lucky to be joining a top-notch department.
ASA UPDATE

This year’s annual ASA meeting was held in New Orleans from October 17-21, 2009. The department hosted abstracts presented by medical students, residents, and faculty this year. A special section discussing our FAER presentations is in this edition. Multiple faculty also spoke during the meeting. It is all of our desire to see our involvement grow.

The departmental hosted a MUSC get together at Mulates. Fried alligator and frog legs were some of the interesting things that were sampled. Larry Field had the hardiest meal.

Matt McEvoy, MD
FAER Research

The Medical Student Anesthesia Research Fellowship (MSARF) program provides support to medical students for 8-12 weeks of anesthesia related research experience and is an element of FAER’s commitment to attract scientific talent to academic anesthesiology. The symposium provides an opportunity for MSARF participants to present research findings from their MSARF experience. Our department was fortunate to host 3 students this year, more than anyone else in the country.

Jenna Walters

My FAER research project focused on evaluating the impact of cognitive aids on resident and medical student ACLS guideline adherence during simulation of high stakes perioperative events. Over the course of this project, I realized the importance of utilizing simulation to improve patient safety. Each resident and medical student had an opportunity to learn from their mistakes and practice their clinical skills in a safe environment without harming patients. Hopefully, the data we collected will help determine the most effective way to improve clinical performance and skill retention, especially in crisis situations. I enjoyed being part of a project that helped MUSC residents and students become more confident in the quality of care they provide patients. In the process of working with Dr. McEvoy, I also learned the appropriate ACLS guidelines for unstable patients and code scenarios, which will be invaluable as I approach my intern year. I presented a portion of the initial study data at the 2009 ASA Conference FAER Research Symposium.

Andrew Voris

This summer I worked on several projects attempting to define the effects of Gabapentin and Transcranial Magnetic Stimulation on reducing opiate consumption in patients undergoing Laparoscopic Gastric Bypass Surgery. A related question we attempted to answer was whether we could correlate opiate dose with frequency of post-operative hypoxemic episodes. The first two projects were designed to investigate the mechanisms for decreasing the dosage of opiates in a population with known problems associated with obstructive sleep apnea and hypoxia while also providing equivalent or improved pain control. I presented the opiate dose/apneic episode study at the ASA conference in New Orleans at the FAER symposium. These projects were my first opportunity to do research in a clinical setting. Unlike past research I have conducted, these projects will help to answer clinically relevant questions that will directly affect health care in the gastric bypass patient. Also, as a part of the FAER grant, I was allowed to work in the OR with the anesthesia staff. I found all medical personnel willing to teach and explain. In working directly with patients, I was impressed with their enthusiasm to be part of a research study that aims to help other patients undergoing the same procedure. As a result of my FAER research experience, I hope to stay involved in clinical research throughout my medical career.

Jeremy Smalley

The FAER MSARF grant that I received in the Summer of 2009 provided for my involvement in Dr. McEvoy’s ACLS and ACRM simulation training and testing study. Helping with the development of research protocols and then participating in their implementation and refinement was challenging and educational. Following that process with data analysis and abstract writing was a rewarding way to experience the entire research process, and the FAER-funded trip to the ASA conference put our work in context as I saw a number of presentations on the clinical application of our findings. I also gained clinically relevant experience during the project. Observing and assisting in the resident simulation sessions provided valuable examples in decision-making and team management. Acting as a code team member brought familiarity and confidence with clinical skills including airway management, defibrillator and pacer use, monitors, and BLS. I look forward to continued involvement in simulation and clinical research. In light of this, I am taking a year off from medical school to work with Dr. McEvoy on this project funded by the FAER Research Education Grant.
ASA UPDATE CONTINUED... BY ROB BARTLETT, MD

New Orleans, The Big Easy, a place known for its food, fun, and the ASA 2009. Four residents including Gabe Hilleagliass, Jerell Brown, Bassam Kadry and myself made the journey from Charleston to New Orleans last week for the annual convention of the American Society of Anesthesiologists. Joining us were MUSC faculty, medical students, and a diverse group of anesthesiologists and CRNAs from around the nation and world.

After a serving of Belgian waffles with banana’s foster topping for breakfast we headed to the first day of the conference. Refreshers were on tap and we received several good lectures including one by Avery Chung titled, “Update on Mechanical Ventilation in the OR.” A seemingly easy topic disguised an excellent review of ARDS and how critically ill patients are challenging the limits of OR ventilators. The day was concluded by taking the short walk back to the B&B via Bourbon Street.

Day two began with a healthy dose of chicory coffee to clear the cobwebs created by some hurricanes and hand grenades. At the convention, Jerrell and I attended an ultrasound guided regional workshop for residents. Gabe split off to present his poster with Dr. Havidich at the challenging medical case session. The day was concluded by waking through the convention hall to accumulate free stuff and chat with the vendors. The most interesting booth was the demonstration of the Masimo “Rainbow” pulse oximeter. The amount of information provided by a simple non-invasive monitor would be beneficial in several of the MUSC OR’s, especially in OB where patients are awake, creating movement interference, and blood loss can be rapid, with inaccurate measurements.

Monday brought a helping of sweet potato stuffed French toast with a candied pecan topping. The conference continued, but the main event was a departmental dinner at Mulate’s Restaurant. The restaurant claimed to be “the Original Cajun Restaurant” of New Orleans. With that in mind we helped ourselves to alligator, crawfish, frog legs and barbecue shrimp. The Cajun band strummed a tune and several patrons danced, but no one from the MUSC group could muster the courage or rhythm necessary to keep up. By day four the conference was winding down and we were packing our bags. Nola was a great host for 2009. I’m looking forward to a report from San Diego in 2010.

JOSEPH S. REDDING, MD CRITICAL CARE LECTURE SERIES

Dr. Joseph Stafford Redding earned his MD degree from the University of Maryland in 1948, completed a residency in Internal Medicine, and residency in Anesthesiology at the University of North Carolina. He achieved academic recognition in Anesthesiology as an Associate Professor at Johns Hopkins University, Professor at the University of Maryland, Chief of Service at Baltimore City Hospital, and Professor and Fellow of the Graduate Faculty at the University of Nebraska.

He joined the faculty of the Medical University of South Carolina as Professor of Anesthesiology and Head of the Division of Respiratory – Critical Care in 1974. He remained here until his death in 1984. Joseph Redding was internationally known as a pioneer in critical care research which led to modern day concepts of cardiopulmonary resuscitation. He was a dedicated clinician, teacher and investigator who authored over 100 publications.

In honor of his accomplishments, the Joseph S. Redding, MD Critical Care Fund was established to support the department and the University in their missions of service in patient care, research and education. These funds provide support for guest lecturers with expertise in the area of critical care medicine.

Dr. Michael A. Gropper, MD/PhD Professor and Vice Chairman from the University of California, San Francisco gave the yearly Joseph S. Redding Critical Care Lectures on October 5 and 6. His talks were entitled, Improving the Care of Critically Ill Patients” and “Current Risks and Benefits of Blood Transfusions.” This multidiscipline event was well attended by our department along with the pulmonary medicine and surgical critical care services. His excellent lectures can be found on our Grand Round series web site: www.musc.edu/anesthesia/education/grand_rounds

Critical Care Leaders Left to Right: Larry Field (Director, DDICU), Horst Rieke, Michael Gropper, Alice Boylan (Director, Medical Critical Care Services Line, and Samir Fakhry (Director, Surgical Critical Care Service Line)
In this issue of Sleepy Times, Bifrontal Epidural Prefrontal Cortical Stimulation (EpCS) is described. Below is the press release associated with a priority publication of our pioneering results in Biological Psychiatry. Faculty assistance is being solicited for future studies in this area.

New brain stimulation treatment may offer hope for those with treatment resistant depression: Researchers at Medical University of South Carolina (MUSC) pioneer bilateral epidural prefrontal cortical stimulation

October 13, 2009 Charleston, S.C.--A new neurosurgical procedure may prove helpful for patients with treatment-resistant depression. Bilateral epidural prefrontal cortical stimulation (EpCS) was found generally safe and provided significant improvement of depressive symptoms in a small group of patients, according to lead researcher Ziad Nahas, M.D. at the Medical University of South Carolina. The data are reported in the on-line issue of Biological Psychiatry.

Treatment-resistant depression is a recurrent psychiatric illness and a leading cause of premature mortality due to suicide and associated medical conditions. In the U.S., more than 3.2 million patients are diagnosed with treatment-resistant depression. Typically, patients have tried several medications and treatments without success or improvement.

EpCS targets electrical stimulation to the anterior frontal poles and the lateral prefrontal cortex. “We focused on these two regions because they are part of a larger brain networks critical in regulating mood. Both play complementary roles integrating emotional and cognitive experiences and offer a distinct opportunity for targeted antidepressant treatments” said Dr. Nahas, an associate professor of Psychiatry, Physiology and Neuroscience and Director of the Mood Disorders Program at MUSC. “Cortical stimulation has several advantages provided that it shows efficacy in treating depression. It is reversible, non-destructive and potentially safer than other forms of invasive brain stimulation since the stimulating paddles don’t come in direct contact with the brain.” His team included MUSC neurosurgeon Istvan Takacs, MD and MUSC anesthesiologist Scott Reeves, MD.

Five patients were implanted with EpCS over the anterior frontal poles and the lateral prefrontal cortex bilaterally. Four separate paddle leads were then connected to two small generators surgically implanted in the upper chest area of the patient. The researchers individualized the treatment parameters for each patient to maximize the long-term antidepressant effects. They relied in part on input from the patients themselves who signaled positive mood changes when first stimulated. In general, their devices were set to periodically deliver electrical charges at intensities below the seizure threshold. The devices were never active at night. Only patients who failed to respond to several antidepressant treatments— including medications, psychotherapy, transcranial magnetic stimulation, vagus nerve stimulation or electroconvulsive therapy, were included in the study.

Patients were closely followed after the surgical implant and evaluated regularly using standard clinical ratings. After seven months, the average improvement was 54.9 percent based on the Hamilton Rating Scale for Depression and 60.1 percent on the Inventory of Depressive Symptoms Self Report. Three of the patients reached remission. One patient experienced a scalp infection that required removing the implants over the left hemisphere.

“These preliminary results are encouraging but not definitive,” said Dr. Nahas. “Now that we have a proof of concept, we should aim at studying bilateral EpCS in larger placebo-controlled studies.”

“The more sophisticated functions are on the surface of the brain” said Takacs. "We are trying to change the climate within the prefrontal cortex so it could exert more adaptive governance of deeper brain regions.” he said.

The study was funded by the National Alliance of Research in Schizophrenia and Affective Disorders (NARSAD), the brain and behavior research fund.

Kathleen Ellis
Director of National Communications
Medical University of South Carolina
During the final stages of World War I in the winter of 1918, a deadly human influenza A virus (H1N1) emerged that caused the most devastating pandemic in recorded world history. The “Spanish Flu” pandemic of 1918-1919 claimed more than 50 million lives worldwide, disproportionately killing those between the ages of 20 and 40 years. Since the emergence of the 1918 influenza A (H1N1), the original virus and its progeny have continued to evolve through mutation and reassortment into new viruses that have been responsible for pandemics, epidemics, and epizootics that punctuated the 20th century.

In early April 9, 2009, public health officials in Mexico City, identified an outbreak of late season influenza characterized as “swine flu.” Eight days later, the Centers for Disease Control and Prevention (CDC) confirmed two cases of swine influenza in children in Southern California, a strain subtyped as A/California/7/2009(H1N1) pdm. Viral isolates in those cases differed from H1N1 isolates in 2008, having undergone significant changes in the both neuraminidase and haemagglutinin protein spikes which contain the antigenic variable regions of the virus. The new viral strain, designated 2009 H1N1 influenza, is a novel strain of influenza A of the H1N1 subtype, and is a triple reassortment of swine, avian, and human influenza viruses. The 2009 novel H1N1 virus (S-OIV, i.e. swine-origin influenza virus) is a fourth generation descendant of the 1918 influenza that exploded across the globe 91 years ago.

The first “pandemic” declaration of the 21st century was issued by the World Health Organization on June 11, 2009, through its Global Alert and Response Network. On October 25, 2009, President Obama declared the “swine flu” a national health care emergency as more than 20,000 people having been hospitalized and over 1,000 people succumbing to the disease. CDC key indicators for the week of October 11-17 (week 41) showed continuation of the increase in influenza activity with 46 states reporting widespread influenza, hospitalization rates higher than expected and climbing, and influenza-like illness above the national baseline in all 10 regions. All subtyped influenza A viruses were H1N1, rather than seasonal flu. From August 30-October 17, 2009, there have been 2,416 pneumonia and influenza syndrome-based deaths. Eleven pediatric influenza-associated deaths were reported during week 41. Since April 2009, there have been 95 confirmed pediatric 2009 H1N1 deaths, 53 of which occurred since August 30, 2009. There have been 14 reported U.S. cases of oseltamivir resistant 2009 influenza A (H1N1) since April, however, all of these cases retained their sensitivity to zanamivir.

On September 15, 2009, four influenza vaccine manufacturers received FDA approval for monovalent influenza vaccines for the prevention of 2009 influenza A (H1N1). The vaccine is available in both the live, attenuated (LAIV) nasally-administered (FluMist) formulation, and the inactivated, injectable formulations containing the strain identified in the two California children (A/California/7/2009(H1N1) pdm). The recommendations for administration of the 2009 H1N1 monovalent vaccine by age group and associated precautions are the same as for the seasonal influenza vaccine. LAIV should not be used to vaccinate children less than 2 years of age, adults >49 years, pregnant women, persons with underlying medical conditions at a higher risk for influenza complications, or children aged <5 years old with one or more episodes of wheezing in the past year. Children between the ages of 6 months and 9 years receiving the vaccine should receive 2 doses, with the doses separated by approximately 28 days; persons ≥10 years of age should receive 1 dose. The approved age groups for use of inactivated influenza A (H1N1) monovalent influenza vaccines differ by manufacturer; Novartis: persons ≥4 years, CSL Limited: persons ≥18 yrs, Sanofi Pasteur, Inc.: persons ≥6 months. For healthy adults, full immunity to H1N1 is achieved about two weeks after vaccinated, while in children, full immunity is not achieved for about 4 weeks.
H1N1 UPDATE CONTINUED...

Public health concerns for vaccine safety resonate through the media and watch-dog groups on the internet. Many view with skepticism the rapid development of the vaccine and approval by the Food and Drug Administration (FDA). Preliminary data suggest that the 2009 influenza A H1N1 vaccine has an immunogenicity and safety profile similar to that of the seasonal influenza vaccine, which has been without serious side effects for the past 55 years. Both the H1N1 and seasonal influenza vaccines are formulated using the same process by which a newly identified viral strain and a standard laboratory strain are injected into embryonated chicken’s eggs, eventually yielding a hybrid strain. The hybrid strain contains the inner components of the laboratory strain and the outer components of the pandemic strain. Thousands of eggs are injected with the hybrid vaccine virus and the virus is allowed to multiply. The egg white containing the virus is harvested and the virus is then separated and partially killed. After dilution and reagent tested, the vaccine is placed in vials or syringes, tested for sterility, and safety tested in animals. The development of each new vaccine takes approximately 5-6 months. Delivery of the current H1N1 vaccine has been delayed because the 2009 H1N1 strain does not replicate well in eggs. Vaccine manufacturer’s initially anticipated delivery of 150 million doses of the vaccine in mid-October, but were only able to deliver 11 million doses as of last week.

Consumer groups have also questioned the vaccine’s safety based on previous unsubstantiated links with preservatives causing neuropsychological deficits in children, additives causing human adjuvant disease (HAD), and a previous H1N1 vaccine linked to an increased incidence of Guillain Barré (GBS) syndrome. The mercury-containing preservative, thimerosal, used in vaccines and immune globulin preparations, was once thought to be associated with neuropsychological deficits in children. Although recent studies (NEJM; Thompson, et al, volume 357:1281-1292, Sept. 2007) do not support an association between mercury exposure from thimerosal-containing vaccines and neuropsychological deficits, the Institute of Medicine has concluded that the available evidence is inadequate to accept or reject a causal relationship. The LAIV 2009 H1N1 influenza A vaccine and single dose injectable, attenuated vaccine does are thimerosal-free, however, the multi-dose vials do contain a small amount of the preservative.

Adjuvants, such as aluminum salts or gels, or more notably, squalene, have been added to previous vaccines to enhance immunogenicity, and often allow for smaller amounts of the inactivated virus or bacterial components (the parts of vaccines that prompt an immune response) to be used in the production of the vaccine. The inclusion of adjuvants (silicone, aluminum) in vaccines was hypothesized to be a possible link to illnesses described in Gulf War veterans, but there is no evidence supporting a relationship between aluminum salts or silicone adjuvants and the development of human adjuvant disease. Nevertheless, none of the approved influenza A 2009 (H1N1) monovalent vaccines or seasonal influenza vaccines contain adjuvants to enhance immunity.

Concerns have also been raised about the possible link between a previous H1N1 vaccine and Guillain Barré syndrome. In January 1976, a novel virus H1N1 (A/New Jersey/76) caused an outbreak of respiratory illness in Fort Dix, New Jersey, that led to a massive national immunization program resulting in 532 cases of GBS out of the 40 million civilians vaccinated. The possibility of association of GBS with the H1N1 vaccine, necessitated stopping the immunization effort. Investigators do not know exactly why that particular vaccine was associated with an increased risk for GBS; however, there’s been no evidence of an association between vaccination and GBS since 1976, despite close monitoring. One of the most common risk factors for developing GBS is infection with Campylobacter jejuni. It has been hypothesized that the H1N1 vaccine administered in 1976 may have contained contaminated moieties mimicking human gangliosides, which are considered to induce cross-reactive antibodies that lead to GBS. Patients with Guillain-Barré syndrome subsequent to Campylobacter jejuni enteritis frequently have IgG antibody to GM1 ganglioside. The CDC and the Advisory Committee on Immunization practices (ACIP) recommend the use of antiviral drugs, rather than vaccination for those that have previously had GBS associated with influenza vaccination.

Only vaccines and antiviral drugs are clearly efficacious in preventing infection or treating illness. Until enough vaccine is available, antivirals, particularly the neuraminidase inhibitors (oseltamivir, zanamivir), are the only available pharmaceutical interventions effective against the 2009 H1N1 pandemic influenza A strain. However, antiviral drugs can decrease or prevent immune protection from the live, attenuated vaccine (FluMist), when administered 48 hours before, through 2 weeks after vaccination. The inactivated, injectable vaccine immunogenicity is not affected by antiviral administration, and is the preferred formulation in those who have recently been treated with antivirals.
The circulating 2009 H1N1 is resistant to the adamantane anti-virals, amantadine and rimantadine, but sensitive to the neuraminidase inhibitors, oseltamivir and zanamivir. The neuraminidase inhibitors are in short supply, with some local area pharmacies currently resorting to compounding these drugs. When initiated within the first 24-30 hours, the antivirals can shorten the duration of influenza symptoms by one to three days, reduce the severity of illness, and decrease the risk of complications, including severe illness and death. In general, healthy persons with uncomplicated influenza do not need antiviral medications for treatment. The CDC recommends antivirals for all persons with suspected or confirmed influenza requiring hospitalization, symptoms of lower respiratory tract illness, clinical deterioration, children less than 2 yrs of age, adults 65 yrs or older, pregnant women, post-partum patients up to 2 weeks after delivery, persons with chronic medical illness or immunosuppressive conditions, and those under age 19 yrs who are on chronic aspirin therapy because of an increased risk of Reye syndrome.

Post-exposure chemoprophylaxis with neuraminidase inhibitors generally should be reserved for persons at a higher risk for influenza complication (see list above) and not be used for prevention of influenza in healthy individuals. Healthcare workers, first responders, and public health workers should practice mitigation strategies, including cough and hand hygiene, social distancing, and the use of personal protection equipment (e.g. gloves, eye protection, N-95 respirators), during influenza outbreaks. Healthcare workers with recognized, unprotected close contact exposure to patients with confirmed, probable, or suspected 2009 H1N1, may be considered for post-exposure chemoprophylaxis on an individual basis, particularly in unvaccinated persons. Careful, selective use of antiviral medications is paramount to forestalling the development of oseltamivir-resistant 2009 H1N1 viruses.

Rare, transient neuropsychiatric effects have been reported following the administration of both oseltamivir and zanamivir, but it is unclear as to whether the abnormal behaviors were side effects of the neuraminidase inhibitors, or associated with the influenza infection itself. Allergic reactions to both neuroaminidase inhibitors have been reported. Oseltamivir associated side effects include nausea, vomiting, and diarrhea. Zanamivir, an inhaled medication, has been associated with bronchospasm, particularly in patients with underlying pulmonary disease.

On October 23, 2009, in response to a request by the U.S. CDC., the FDA granted an emergency use authorization (EUA) for the investigational drug peramivir, an intravenous (IV) antiviral drug. Peramivir is only authorized for use in hospitalized adult and pediatric patients based on failed responsiveness to oral or inhaled antiviral therapy, enteral or inhaled drug delivery is not dependable or feasible, and when clinician judgment deems IV therapy the most appropriate delivery option in adults due to extenuating circumstances. The EUA for peramivir will end when the declaration of emergency is terminated or the EUA is revoked by the FDA.

The H1N1 pandemic virus has rapidly established itself and is now the dominant influenza strain in most parts of the world. The H1N1 pandemic will persist in the coming months as the virus continues to move through susceptible populations as the Northern hemisphere approaches the winter months, traditionally earmarked as “flu season” for seasonal influenza. Based on a recently published simple harmonic seasonal forcing model (Eurosurveillance 2009: Volume 14/Issue 41), the peak of the first wave of the H1N1 influenza pandemic will occur between weeks 39 and 43, with 8% of the population being affected (95% confidence). By the end of 2009, the model predicts that 63% of the US population will have been infected (95% confidence), however, the uncertainties in this model are difficult to quantify.

Few working in health care today have experienced the tragedy of pandemic influenza. As the 2009 H1N1 pandemic continues to spread cross the globe, health care professionals will play a pivotal role, not only in caring for those stricken with 2009 H1N1, but through incorporating mitigation strategies, including immunization, into personal practice, and actively participating in educating the public in prevention strategies. Vaccination is the single most powerful strategy we command that can slow the global propagation of the H1N1 virus, and early immunization for both seasonal and H1N1 influenza is recommended by the CDC, WHO, and the Strategic Advisory Group of Experts (SAGE) on immunization. MUSC and local DHEC are strongly promoting vaccination, and have available seasonal and H1N1 immunization opportunities that are widely advertised. MUSC broadcast alerts and messages from the MUHA Executive Medical Director’s office, offer times and dates from employees to participate in these programs. Local DHEC vaccination sites, dates and times is published in the Post and Courier, or the agency can be contacted directly for information.

Susan Harvey, M.D.
Associate Executive Medical Director
Vice-Chair of Clinical Affairs, Department of Anesthesia and Perioperative Medicine
References available upon request
# DHEC Swine Flu Vaccination Centers

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CONGRATULATIONS TO OUR NURSES!

MUSC Health
MEDICAL UNIVERSITY of SOUTH CAROLINA

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MUSC Nurses’ listed in America’s Best Hospitals
ANNUAL U.S. NEWS & WORLD REPORT RANKINGS CITE BEST FOR NURSING CARE

Charleston, S.C. (October 28, 2009) — MUSC Hospital has been ranked as one of the top in nursing care in the U.S. News Media Group’s 2008 edition of America’s Best Hospitals, published online at www.usnews.com/articles/health/best-hospitals/2009/10/20/which-best-hospitals-have-great-and-not-so-great-nurses.

“As a hospitalist who sees patients at MUSC and as an administrator who works with MUSC nurses everyday, I already knew we have some of the best nurses in the country, but it is always great to see external validation,” said Patrick Cawley, M.D., MUSC executive medical director.

Patient satisfaction survey results for the year ending December 2008 showed which hospitals have “great and not so great nurses.” Hospitals were ranked by the highest percentages of patients who said their nurses were always courteous, listened carefully, and gave clear explanations.

“I am thrilled that our excellent nurses are being recognized,” said Marilyn Schaffner, PhD, administrator for clinical services and chief nursing executive. “This is a huge tribute to our gifted nurses who give of themselves every day providing compassionate, caring patient care throughout MUSC.”

MUSC was voted 78 percent by patients whose nurses were surveyed as always polite and communicative. The top ten percent of hospitals results ranged between 82 and 78 percent with the average of all reporting hospitals at 74 percent.

About MUSC
Founded in 1824 in Charleston, The Medical University of South Carolina is the oldest medical school in the South. Today, MUSC continues the tradition of excellence in education, research, and patient care. MUSC educates and trains more than 3,000 students and residents, and has nearly 11,000 employees, including approximately 2,000 faculty members. As the largest non-federal employer in Charleston, the university and its affiliates have collective annual budgets in excess of $1.6 billion. MUSC operates a 750-bed medical center, which includes a nationally recognized Children’s Hospital, the Ashley River Tower (cardiovascular, digestive disease, and surgical oncology), and a leading Institute of Psychiatry. For more information on academic information or clinical services, visit www.musc.edu. For more information on hospital patient services, visit www.muschealth.com.
I HUNG THE MOON!

The departmental members below have been recognized by our patients and their peers. This month’s drawing winner is Will Hand. He will receive a gift card to Hominy Grill!

Joe Whiteley- That most difficult case was an excellent effort by the Anesthesia attendings.

Kathleen Williams- For her contribution in helping me organize an Airway Workshop for the Anesthesia interest group. Your efforts are truly appreciated.

Larry Banks- Your efforts in our difficult case on 9/25 went above and beyond. Thank you for all you did and for being a “voice of reason.”

Tara Ahlberg- Her contribution in helping me organize an Airway Workshop for the Anesthesia Interest Group. Tara, your efforts are truly appreciated. Thank you.

Allison Miller- Your contribution during a very difficult case on 9/25. Your hard work did not go unnoticed.

Michele Ballister- Your hard work and focus on our very difficult case on 9/25. Thanks for being such a team player.

Kyle Comley- Thank you, thank you!

Kathy Comley- Your hard work and dedication on a very difficult case on 9/25. Your calm, steady presence was a big help.

Joe Whiteley- Your dedication and teamwork on a very difficult case. I am proud to have worked alongside you.

Terry Satterfield- Your skill and flexibility during a very difficult case on 9/25. You were truly a team player and played a major role in keeping us all going.

Will Hand- Your effort and commitment in a very difficult case on 9/25. As always, your performance was exemplary.

Shannon Lott- I am proud to have been part of the team on that "most difficult case." Your help was appreciated.

Amy Cassidy- I am proud to have been part of the team on that "most difficult case." Your calm, competent direction was appreciated.

Michelle Ballister- Thank you, thank you!

Valerie Bailey- Her outstanding personality filled with compassion and understanding, offering words of encouragement.

Monica Williams- Efficient and congenial assistance. Thank you.

*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.

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 20, 2009.

This Month’s Contributors:
Scott Reeves, Susan Harvey, Leslie Fowler, and Rob Bartlett