

Children's heart program ranked No. 7 in the US

Heart Network of SC climbs high

BY HELEN ADAMS

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The MUSC Children's Heart Network of South Carolina has broken into the top 10 in U.S. News & World Report's rankings of the Best Hospitals for Pediatric Cardiology and Heart Surgery. Eric Graham, chief of pediatric cardiology, calls the No. 7 ranking a wonderful acknowledgement of the program's commitment and dedication to the children of South Carolina.

"Hopefully, this will bring additional comfort and assurance to families who need our care. The comprehensive cardiac program at MUSC Children's Heart Center has consistently been named one of the top pediatric heart centers in the country by U.S. News & World Report and has consistently been the recipient of the three-star rating by the Society of Thoracic Surgeons' Congenital Heart Surgery Public Reporting. This recognizes us among the best centers in the world and in the top group of U.S. News-ranked elite centers."

The heart program earned "excellent" and "very high" marks in multiple categories, including:

- Children's survival rates after congenital heart surgery and Norwood/hybrid surgery.
- Ability to prevent infections throughout

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Photo by Sarah Pack

Dr. Heather Evans, left, who came to MUSC Health from Seattle's Harborview Medical Center last year, talks with Dr. Starr Friedman before an emergency surgery.

A surgeon with a flair for the traumatic

BY BRYCE DONOVAN

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For a split second, the room is totally still.

All eyes — and there are a lot of them: nurses, doctors, techs, an EMT standing just off to the side — are trained on Heather Evans, M.D. On the table in front of the seasoned trauma surgeon is a young man with a gunshot wound to the chest. His body is motionless. There is no breathing. No heartbeat. CPR does nothing. So she plays the only card she has left. She cuts him open and begins giving him compressions. Directly on the heart.

Her lips don't move, but the rhythmic motion of her shoulders seem to count out loud.

One. Two. Three. Four. Five. Six.

And she brings him back.

They're all moving again now. Talking. Shouting. A nurse calls for an IV bag. Monitors in the corner chirp their computerized cries for help.

Evans hollers to a resident to take her place — "Put your hands right here — where mine are," as they wheel him toward the elevator, away from the Emergency Department. A cluster of nurses and doctors cram in, encircling the patient as the doors close. "Push the 4! Push the 4!" The elevator complies, rapidly ascending to the surgical trauma OR.

It's 5:52 a.m., and Evans has been on her feet for 14 consecutive hours. There's been a car crash, a

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Testing and treatment are critical.

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Dentists do their part to stem tide.

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Neuroscience department starts glove recycling program

Staff Report

Initiated by Carmela Reichel, Ph.D., the MUSC Department of Neuroscience recently started a departmentwide glove recycling program through Terracycle — a specialty recycling company.

Since gloves are not recyclable through standard recycling programs, boxes purchased through Terracycle allow for the collection of



nitrile, vinyl and latex gloves, which are shipped back to the company and recycled.

This innovative initiative will divert a large stream of disposable lab waste from the landfill and demonstrates leadership in environmental stewardship.

Learn more about programs like this, and join the Reichel lab as an MUSC-certified green lab. For more information on the certification process or to schedule a presentation for your lab group, contact the Sustainability and Recycling Department at 843-792-4066.



Photo by Brennan Wesley

Cardiothoracic surgeon Dr. Minoo Kavarana is part of the large heart team at MUSC Children's Health. Here, he's with patient Samantha Hill.

RANKINGS *Continued from Page One*

- Ability to prevent infection throughout the hospital.
- Having surgeons who performed 100 or more congenital heart procedures a year.
- Offering advanced clinical services, advanced technologies, specialized clinics and full-time subspecialists.
- Showing a commitment to best practices and quality improvement.
- Using health information technology to improve patient safety and care.
- Offering support for families.
- Enlisting families in structuring care.

The No. 7 ranking is up from No. 11 last year. Graham said caring for children with heart problems takes the expertise of specialists across the state. "Today, more than 30 pediatric cardiologists throughout South Carolina and two pediatric cardiac surgeons in Charleston provide that coordinated care. Cardiology groups are based in four locations — Charleston, Columbia, Greenville and Florence — with outreach clinics in a variety of other statewide cities."

Graham said all surgical and catheterization procedures in the state take place in the Children's Heart Center at MUSC Children's Hospital. "This system allows for the highest level of care by the specialized teams at MUSC while still assuring that most of the patient's care is delivered closer to

home. This coordinated team approach is unique to our state, and we are proud to work so closely with our statewide colleagues to provide it."

U.S. News & World Report's 2019-2020 rankings contain other good news for MUSC Children's Health.

- MUSC Children's Hospital is the only such institution in South Carolina to be ranked as one of America's Best Children's Hospitals.
- The nephrology, or kidney, program ranks No. 25 nationally.
- Gastroenterology and GI surgery ranks No. 38.
- Cancer and orthopedics programs both rank No. 40 in their categories.

Respect in the Workplace Training scheduled July 17

Workplace relationships can be challenging and are ineffective when employees feel offended, forgotten, dismissed or demeaned. A Respect in the Workplace Training for MUSC employees is scheduled from 11 a.m. to 1 p.m., Wednesday, July 17 in Harborview Office Tower Rm. 910. Employees can enroll via MyQuest.

The goal of this class is to raise awareness and support activities that remind employees how to create an environment where respect is vital for growth and used to achieve transformation that demonstrates high productivity, quality and superior experience in service.

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RSVP simcenter@musc.edu

Lunch will be provided for registered participants

MUSC CATALYST news

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Lurking killer can be cured, but only if people get tested

Some 2.4 million people in U.S. living with hepatitis C

BY LESLIE CANTU

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Hepatitis C virus can cause cirrhosis of the liver or liver cancer and is the most common reason for liver transplantation in the U.S., according to the Centers for Disease Control and Prevention.

The bad news? There are an estimated 2.4 million people living with hepatitis C virus in the United States, and many don't even know it.

The good news? It can usually be cured when patients can access treatment, said Eric Meissner, M.D., Ph.D., an assistant professor in MUSC's Division of Infectious Diseases, one of several areas within MUSC Health that treat the hepatitis C virus infection.

Meissner said that there are great medicines available today, and treating the virus can be as simple as taking a pill for eight to 12 weeks. The trick is finding the

people who are infected and linking them to care. Baby boomers and people who have used drugs intravenously are two main groups that should be tested.

"Screening for hepatitis C virus in our blood supply didn't begin until 1992, so anyone that had potential exposure to someone else's blood — if you had a transfusion or some other medical encounter — is at risk of having acquired the infection decades ago," he said.

The virus can live quietly in the body for decades before problems become apparent. During that time, many people show no symptoms.

"There are an estimated 65,000 people in the state that have this infection, many of whom are unaware they are infected," Meissner said.

Meissner said people with health insurance are almost always covered for the hepatitis C treatment. Accessing services can be more difficult for the



Photo by Sarah Pack

Dr. Eric Meissner talks with physician assistant Betsy Hopkins at the infectious diseases clinic in Rutledge Tower.

uninsured due to the cost of the doctor's visit and bloodwork, but with help from pharmacists and pharmaceutical support programs, they can often access medication at no cost.

Anyone interested in being tested should talk to his or her primary care doctor. For treatment, the Division of Infectious Diseases can be reached at 843-792-9200.

Investment officer appointed to lead MUSC Foundation

Staff Report

John Barter, chairman of the Board of Directors for the MUSC Foundation, announced the appointment of Stuart G. Ames as CEO of the MUSC Foundation, effective June 24. The charitable foundation exists to support the tripartite MUSC mission of education, research and patient care. The MUSC Foundation fully leverages its assets to invest, manage and disburse private resources in ways that help provide a margin of excellence for the university and the health system. Foundation funds support priority needs and university initiatives that might otherwise be unfunded.

"The depth and breadth of investment skills and expertise that Stuart brings to this position are impressive," Barter said. "He has built a solid career and outstanding reputation in the financial community. We know our organization will benefit greatly from his leadership."

Ames has held positions of increasing responsibility



Barter

and accountability over his 26-year career in investment management and finance. For the past 12 years, while with King Pine Investments and Commonfund, he worked exclusively with nonprofit institutions, including universities, colleges and health care foundations, serving as their outsourced chief investment officer. Ames assisted nonprofits with all aspects of management for their endowments and other portfolios, with clients ranging from \$40 million to \$700 million in assets.

Previously, he served as the chief investment officer for Global Hedge Strategies, a joint venture that managed customized portfolios of hedge funds for clients of the Citi Private Bank. Before that, Ames was a director at SEI Investments, where he supervised all aspects of strategy and product development for the alternative investments group. He began his career at Morgan Stanley as a credit analyst.

Ames holds a Bachelor of Arts degree in economics from Brigham Young University and a Master of Business Administration degree with a concentration in finance from the Wharton School of the University of Pennsylvania. He is married to Monique Irish Ames and they have three children.

Ames is assuming responsibilities held for 18 years by Thomas P. Anderson, a former South Carolina

president of Bank of America, who became the CEO of the MUSC Foundation in July 2001. Anderson has retired after a successful career in support of MUSC.

"Our university and health system benefit enormously from the presence and support of the MUSC Foundation as well as from the thoughtful, experienced and proactive leadership provided by its board of directors," said MUSC President David J. Cole, M.D., FACS. "We are grateful for all that Tom Anderson has contributed, knowing that he has established a solid base that Stuart Ames will continue to leverage and build into the future."

During its May meeting, Charles W. Schulze, chairman of the MUSC Board of Trustees, read a resolution in appreciation of Anderson's many contributions. "Tom has been a great asset to this organization as it reached new heights because of his knowledge, leadership and vision. During his tenure as CEO, the MUSC Foundation has increasingly supported and enhanced the mission of MUSC," Schulze said. "Total assets have increased more than fourfold, from \$160.5 million in 2001 to \$623.8 million in 2018, along with net asset growth from \$117.4 million to \$442.7 million. MUSC commends and thanks Tom for his service to this institution, the Lowcountry and state."

Pharmacy resident starts clinic to teach patients to inject specialty meds

Resident launches an injectable medication pilot program

BY LESLIE CANTU
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Learning how to inject a prescription medication can be a daunting task for patients. A pilot trial in the MUSC Health Specialty Pharmacy seeks to train people to give themselves the injections, saving them from extra trips to the doctor's office and ensuring they're getting the medicine they need.

Whitney Simerlein, Pharm.D., a community-based pharmacy resident, received a grant from the American Pharmacists Association Foundation to test the idea. She said the program started in January and has seen a few dozen patients so far.

Simerlein got the idea from one of the people overseeing her residency, Kristin Beeker, Pharm.D., a clinical pharmacy specialist. Beeker realized that many of her clinic patients were uncomfortable injecting themselves. It just wasn't something most of them had ever done before, Beeker said.

"Our typical education is over the phone, and you can imagine if you've never given yourself an injection and you're learning over the phone, it's kind of intimidating," she said.

Simerlein's trial focused on people who need prescriptions from the specialty pharmacy, which handles drugs that are very expensive, meant for complex conditions and may require specific storage conditions. The patients are referred from the rheumatology, cardiology, dermatology, gastroenterology and neurology areas, she said.

Because these drugs are so expensive, it takes extra work to get them approved by insurance providers, said David Cruse, Pharm.D., and manager of the Specialty Pharmacy and Pharmacotherapy Clinics.

"If we can give them a little extra support, the likelihood of them continuing their therapy and getting better from a symptomatic perspective was going to increase."

David Cruse, PharmD.

Patients can't simply walk from the doctor's office to the pharmacy and get the prescription filled right away. It can take a few days for the prescription to be approved, so patients who need help learning how to do the injections would need to schedule another visit and pay another co-pay to see a doctor or another provider. It's much easier for the patients to come see a pharmacist instead and get hands-on help.

Simerlein said some patients were able to learn in one visit and handle injections by themselves from then on, while others have felt more comfortable continuing to get help. "We want to enable patients to do it themselves, but if they can't, we want to help them."

Cruse said the pharmacy team takes very seriously its responsibility to ensure that patients are getting necessary medication. "We take it upon ourselves to make sure that we don't just make sure the drug ends up in the patient's hand, but that they're actually taking it. So this was a way for us to increase adherence," he said. "If we can give them a little extra support, the likelihood of them continuing their therapy and getting better from a symptomatic perspective was going to increase."



Photo by Sarah Pack

Whitney Simerlein demonstrates how she shows patients to properly inject their medications.



Simerlein said she's had people come from as far as Abbeville to get help. Her goal is to ensure they're properly injecting their medications.

Simerlein said she included flyers about the clinic with mailed prescriptions and got a good response. Some people said they'd been injecting themselves with their medication for a few months but weren't sure they were doing it correctly, so they wanted the reassurance of a hands-on clinic. One person came all the way from Abbeville, more than three hours away.

Step-by-step instruction is vital. Simerlein gave the example of one patient who was taking Victoza, a drug that is an injectable, though not one that must go through the specialty pharmacy. The patient thought he'd been injecting himself correctly each day. In fact, he hadn't been, because he hadn't been

removing the needle cap. The person who first demonstrated the injection hadn't removed the needle cap because it was just for practice, but the patient had continued on exactly like the demonstration.

Cruse said the clinic has been well-received by both patients and doctors. Simerlein's residency ends this month, but she hopes that the clinic will continue. She also sees new avenues for research in comparing how patients do with this approach as opposed to the standard of education over the phone or what other specialty pharmacies might be doing.

"I think there's a lot more that could be done with this in coming years," she said.

MEET PETER



Peter Dodge

Department; How long at MUSC

Department of Family Medicine; 16 years

How are you changing what's possible at MUSC

Precepting my gifted physician assistant students and job shadowers for the profession — that's been wonderful to me (I'm retiring as of July 1 — the ultimate Changing What's Possible!)

Family and pets

Wife, Mary E. Dodge, and two Yorkiepoos, Sydney Marie and Simon Nelson

What is your idea of a dream job

A pro hockey career that never materialized

Last book read

"How Sweet It Is," an autobiography by Bob Harris

Your idea of a dream vacation

Taking Mrs. Dodge to Baguio, a mountain resort in Northern Luzon, Philippines

Words of advice

To my students (in clinic): Be you. You are great!

Conversation Cafe
7.10.19

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Lisa K. Saladin, PT, Ph.D.
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RESIDENTIAL BROKERAGE

TRAUMA *Continued from Page One*

ladder fall, a drunk man who picked a fight with a plate-glass window. The only thing Evans hasn't seen during this shift is sleep.

Welcome to the dice roll of the on-call trauma surgeon: Sometimes it's oddly quiet. Sometimes it comes up snake eyes.

"This job is beyond crazy at times," she admitted later. "But days like this — when we get the opportunity to fix people, to save lives — these are what we live for."

WORKING HOURS

4:13 p.m. The day before.

Evans walks into her office on the fourth floor of the Clinical Sciences Building at MUSC. She talks on the phone to her boss as he brings her up to speed on cases that await her. She fiddles with the collar on her shirt as she stares out the window, listening.

"Mmm hmm," she says. A pause. A laugh. A frown. Evans makes faces that would put a mime to shame. Another "Mmm hmm."

She drops her shoulder bag on the chaise lounge — what is sometimes generously referred to as her "bed" on evenings when she does an on-call shift — and sighs deeply.

Not even five steps into her office and her day has already started.

Surgeons often joke about the concept of "working hours." The reality is their jobs never really have a clean starting and stopping point. They don't have the luxury of hanging up a "Sorry, we're closed" sign in the window. That's because life never takes a break. Humans make mistakes. They text while driving. Try to make that unmakeable jump on a dirt bike. Start a fight over a girl. And accidents happen. Some minor, some severe — but all are important to the people they happen to.

So the word "downtime"? It doesn't apply to surgeons.

As Evans finishes her call, she fires off a quick email, dons her white lab coat — a stark contrast to her navy blue scrubs and trademark lime green Birkenstock polyurethane clogs — and strides out the door toward the surgical trauma intensive care unit, or STICU. It is here that she will link up with colleague

"This job is beyond crazy at times. But days like this — when we get the opportunity to fix people, to save lives — these are what we live for."

Heather Evans, M.D.

Cynthia Talley, M.D., to talk through what's in store for her and her team over the next 17-plus hours. That's assuming nobody new comes in — an assumption that is scrapped less than two hours later.

DECISIONS, DECISIONS

According to the National Center for Injury Prevention and Control, trauma is the leading cause of death for people under the age of 45. In the United States alone, it accounts for more than 150,000 deaths. In other words, Evans and her colleagues have their work cut out for them.

Her first stop today is Bay 12, the temporary home to a car crash victim from the day before. While driving home from a visit with his mother, he was hit broadside by a motorist running a red light, sustaining multiple spinal fractures, a pelvic fracture and a head injury. His eyes are closed, and he lies motionless — his head immobilized with a hard cervical collar. Evans and four other physicians huddle nearby.

With a stack of papers in her left hand, Evans says, "We need to figure out what's going on with his platelet count," mindlessly clicking her pen with the other. She orders a host of tests and then tells the resident closest to her: "Text me when you know his tally."

And just like that, she's off.

As she crosses the hall that bisects the STICU her phone pings. She's on her way to Bay 2 to check in on a patient who was admitted 48 hours earlier — the victim of a robbery gone wrong. She puts the phone to her ear and says her name — just her last name — and listens. A long pause, then one of her signature faces. "Bad idea," she says resolutely.

It's an elderly patient with renal failure at another hospital. They want to transfer him to MUSC Health. "We



Photos by Sarah Pack

Dr. Ryan King (from left), Dr. Heather Evans, Dr. Lytani Wilson and MUSC medical student Jane Ma talk through a course of action for a patient suffering from multiple injuries sustained in a car crash.



In addition to dealing with her own patients, Evans is constantly being contacted by other hospitals looking for MUSC Health's expertise and services.

can't risk moving him," she tells them. Even though MUSC Health would be able to give him more specialized care, she said later, the transfer might be more than he can handle. This will be one of about a dozen or so difficult yet snap decisions Evans will have to make over the course of her shift.

She's barely had enough time to put the phone back into her pocket when it makes another sound — slightly different this time. She looks down at the screen. It's a trauma alert. MUSC Health has two kinds, Evans explains. Trauma B is a nonlife-threatening event, something like a trip and fall. Then there's trauma A ... the really bad kind.

Bay 2 will have to wait. It's an A.

UNFAIR FIGHT

"How are we looking, guys?" Evans asks, just moments after passing through the double doors into the first-floor ED. When patients with severe or life-threatening injuries first arrive at MUSC, this is where they come. Just a few paces from the daily humdrum of the Horseshoe, where students and employees walk to and from surrounding buildings blissfully unaware of the chaos unfolding just yards away, the ED is ground zero for patients with critical

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Photos by Sarah Pack

Like most accomplished surgeons, Heather Evans has the ability to completely tune out all distractions when she's working.

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care needs. It can accommodate as many as six patients at once. It's here they are diagnosed and, if necessary or possible, stabilized. Then, if conditions warrant, they are moved to one of several operating rooms on the floors above.

In 2012, MUSC was recognized by the American College of Surgeons as a Level 1 trauma center, the first in the state to earn the designation. Trauma centers are ranked as Level 1, 2 or 3, depending on the level of care they can provide. Level 1 centers must have trauma surgery, anesthesia and operating room capabilities available at all times as well as on-call specialists who can respond quickly. MUSC Health checks all the boxes.

Surrounded by nearly a dozen nurses and physicians, a young man who can't be more than 20 lies on a gurney, howling in pain. His right arm is heavily bandaged.

"Do you know where you are right now?" Evans asks him, trying to take his mind off his pain and gauge his faculties. "What year is it?"

He'd been drinking, and in frustration, slammed his fist through a window outside a bar. EMTs who arrived on the scene said there was a trail of blood a hundred yards from the window

to where he was found. He's sustained severe arterial damage and has no feeling in his arm from his elbow down. As he writhes in pain, eyes unable to focus on anyone or anything, his body begins to shiver violently.

"Why can't I feel my fingers?!" he shouts.

Nurses remove a makeshift tourniquet, and Evans surveys the damage. As she's doing so, in between ear-piercing cries of pain, the man slowly starts to get feeling back in his fingertips. Evans probes a few spots with her gloved fingers then says: "You're going to be OK. You have a very deep cut. You're going to need to have surgery, pal."

His wounds are serious, but he's going to live. One fire out. On to the next.

THE EYES HAVE IT

Back in the STICU, Evans is finally able to check on Bay 2. The nurses tell her he's doing OK. "Would love it if it was better," one says. Evans orders a new radial arterial line for him as well as a few other changes. She's hopeful these subtle shifts will produce more incremental improvements.

"I'll be back to check on him in a bit," she says. But she makes that promise right before all hell breaks loose.

It's just after 7 p.m. now, and a man who had come in earlier complaining



Evans enjoys a rare moment of quiet during her epic 17-hour on-call trauma shift.

of severe stomach pain has deteriorated rapidly. Scans reveal nothing obvious, except for one small spot that has Evans and the rest of the staff stumped.

As she sits in the radiology lab, everything is pitch dark, save for the three giant computer monitors displaying the patient's abdominal scans. Surrounded by a handful of radiologists, Evans and STICU medical director Stuart Leon, M.D., begin floating theories based on what they're seeing, their faces glowing like kids around a campfire.

"Could just be some noise on the imaging," Leon says, more of a question than a statement.

Evans: "It could. But why is he having such acute pain?"

"Well, there's that," Leon says.

Though not ideal, the group decides the only way to know for sure is to open him up.

"I'll go talk to him and get his consent," Evans says. As she steps out of the lab, she makes a quick call to share the plan with surgical resident Starr

Friedman, M.D., who is up on the 10th floor with the patient. Minutes later, the two exit his room, consent granted. It's time to prep him for surgery. That should buy Evans just enough time to eat her dinner: a red Thai curry tofu bowl she snagged at Whole Foods on the way into the office.

"You take small victories where you can get them," she says, smiling. "I don't always get to eat."

BEHIND THE DOUBLE DOORS

The clock on the wall displays 8:34 p.m. as Evans hangs her white coat on hook 31, just outside OR 18. She puts her surgical scrub cap and face mask on, then walks to the hand-washing station to scrub in. Once inside the OR, she surveys the patient. The circulating nurse helps Evans with her gown and gloves — she's a size 7 underglove, size 7 overglove; most surgeons wear two pairs for protection, and there's evidence that it can help reduce the likelihood

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Photos by Bryce Donovan

MUSC employees, faculty and students stepped out to MUSC's Horseshoe on June 5 to learn about hurricane preparedness and discover Tri-county resources and services to prepare for the 2019 Atlantic hurricane season.

Hurricane Awareness Day blows through campus with helpful tips, planning

BY BRYCE DONOVAN

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When a hurricane is bearing down on Charleston, the first thing most people think about is evacuation. But for first responders and primary care providers, there is no refuge from major storms. It's their job to stay and help those in need. That's why MUSC recently held its 20th annual Hurricane Awareness Day at the Horseshoe to showcase those folks as well as inform students, employees and community members of what they need to know and be thinking about when the next storm inevitably comes.

"People depend on us – our doctors, nurses, critical staff – to be there, no matter what. So even though they're not evacuating themselves, their families still need a place to go," said Bryan Wood, MUSC's emergency manager. "So if we can get them thinking ahead, having a plan for their families, they can better focus on serving the needs of others."

A diverse group of state and local agencies and offices was on hand to

talk about hurricane preparedness for this year's season as well as share information, helpful apps and handouts. A few of those in attendance included the South Carolina Highway Patrol, South Carolina Emergency Management Division, S.C. State Guard, Charleston Fire Department, Charleston County Project Impact, MUSC's Office of Student Programs and Student Diversity, National Weather Service Charleston,

Employees stop and chat with the Joint Base Charleston Emergency Management team, which was among several agencies and organizations at the fair.



Joint Base Charleston and WCBBD meteorologist Rob Fowler.

"The big thing at MUSC is you have so many students who come from other places, and they might not be familiar with hurricanes," Fowler said. "They come here, their parents drop them off, and then all of the sudden they're in a place that's foreign to them, and they've never had to go through a hurricane. This event gives everyone a

chance to get information and learn all about hurricanes. Plus, you've got so many natives here who can share their expertise about living through them."

In an attempt to engage passersby, Fowler brought a green screen and monitor and let anybody willing do a pretend weather segment with him. One after another, MUSC employees took their stab at Fowler's job. A nurse. A maintenance worker. Even a FedEx employee making a delivery got in on the action.

According to the National Oceanic and Atmospheric Administration's Climate Prediction Center, there is a 40% chance of a near-normal season this year, a 30% chance of an above-normal season and a 30% chance of a below-normal season. It has also predicted a likely range of nine to 15 named storms (winds of 39 mph or higher), four to eight of which could become hurricanes (winds of 74 mph or higher), including two to four major hurricanes (category 3, 4 or 5, with winds of 111 mph or higher). NOAA provides these predictions with a 70% confidence level. The average hurricane season produces 12 named storms, six of which will become hurricanes, including three major hurricanes. The hurricane season, which began June 1, extends to November 30.

For those who missed the event, Wood recommended going online and tapping into resources like #HurricaneStrong and the South Carolina Emergency Management Division's 2019 Hurricane Guide. He also explained that MUSC, which has about 3,000 students in its six colleges, not only communicates and shares information with city and county emergency management teams but also other local schools and universities so that everybody is on the same page.

MUSC employees and students can sign up for the MUSC Alert system to receive emergency notifications and also check Yammer's Weather Updates group. The 843-792-MUSC (6872) hotline will go live if the campus shifts to emergency operations.

"Like John F. Kennedy once said, 'The time to repair the roof is when the sun is shining,' and the best time to prepare for a hurricane is when there's not a hurricane," Wood said.

TRAUMA *Continued from Page Seven*

of infection. In the span of six minutes, he's draped; the bright surgical lights are turned on; protocols are exchanged between the surgeon, anesthesiologist and nurses; and they're cutting him open.

"What about us" by Pink plays over the speakers as Evans reaches deep inside the man's abdomen. "Scans are great," she says, her voice slightly muffled through the mask, "but there's no substitute for seeing with your own two eyes."

It takes a bit of time, but she finally discovers the problem. It's no simple fix, but she's confident she can finally give this man some relief. She will stand over him for nearly three hours, meticulously working. Three minutes before midnight she finally closes him up.

Time to give the family the good news.

ROUNDS AND ROUNDS

It's 1:34 a.m., and Evans has revisited both Bay 2 and 12, circled back to the man with the arm gash, talked to two other hospitals that want to transfer patients to MUSC Health and examined a man who was hit by a car while riding his moped.

Just after 2 a.m., she returns to her office to try to get some sleep when, much like a newborn in the middle of the night, her phone cries out for her again. She sighs heavily and looks at the screen. The man with abdominal pain is awake and feeling much better; he wants to thank her. The look on her face says it all – it's really great to be loved, just not when you're this tired.

Nearly a full hour later, she finally returns to her office to get some much-needed rest. However, the very thing that makes Evans such a skilled surgeon – her quest for perfection – doesn't simply stop. She goes over the day's patients in her head, thinking of ways she might have done things differently, done them better. She's just about to drift off when the final call of her shift comes in.

It's the gunshot victim.

A HARSH REALITY

Blood is everywhere. The floor. The table. Evans' gloves and chest.

"Who's prepping the abdomen?" she shouts. "Hold that airway!" she adds. Or maybe that's another doctor. It's hard to be certain. A quick headcount reveals 20 people in the room, none without a critical task.

"Come on guys, let's get this done!" Evans barks. Now she needs epinephrine – and calcium – the words "hurry the hell up" implied in every single syllable she utters. An anesthesiologist brings more blood. They're going to need it. The man is hemorrhaging massively, his blood pressure now 49 over 28, with a pulse of 36.

Suction!" Evans pleads. The man is fading, and his abdominal cavity is filling up with blood faster than they can get it out. Finally, she can see what's she's



A nurse helps Dr. Heather Evans with her gown and surgical gloves prior to surgery.

Photo by Sarah Pack

working with, and the news isn't good: The bullet has lodged itself in the man's spinal column after shredding the inferior vena cava and slicing past the liver. The damage it wreaked as it spiraled through his body is becoming more evident, and he's bled out his body's entire blood volume three times.

It's 6:59 a.m. when her colleague Talley – who is leading the front- and back-end of this trauma-shift relay race with Evans – walks back into the OR. A quick debrief from Evans, and she jumps in to help. Eight minutes later the two come to the same somber conclusion: The fight is over.

In stark contrast to just a few minutes earlier, the OR is now calm and quiet. There are 19 fewer heads in the room now. Not 10 feet from the body of the man whose life she so desperately tried to save for nearly three hours, Evans now sits alone – her legs crossed atop a stainless steel instrument table. For once, her expression doesn't give away what you're certain she's thinking: "I could have done more." The internal torture, always going on behind the scenes, is tucked away where only other surgeons are allowed. She's not thinking about the robbery victim who has made a turn for the better or the man whose severe abdominal pain has abated. It's the one who didn't make it that she fixates on.

And that's what makes her great.

It's because of people like Evans that even the craziest, most out-of-control days at MUSC Health have their silver linings. Today she lost a patient. But every day, all around, miracles big and small are happening. A toe that can now wiggle. A quick trip outside for fresh air. A smile on the face of somebody who finally gets to go home, a second chance granted.

As the end of her shift approaches, Evans quietly finishes her operating notes and pushes through the

doors of OR 19 to head across the building for the surgical department handoff meeting. It's the last bit of business she has to take care of before she gets to go home.

Where, one can only hope, she'll finally get some sleep.



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Dentists fight opioid crisis one tooth at a time

Practitioners are following dental opioid guidelines

By HELEN ADAMS

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Dentists and leaders at MUSC are trying to make sure no patient leaves with a prescription for addiction.

“Our prescribing habits here have changed drastically over the last eight or nine years,” says dental surgeon and assistant professor M. Kinon Lecholop, DMD. “We don’t write nearly as many opioids as we used to.”

Lecholop, a craniofacial and facial trauma reconstruction surgeon and program director in the Oral and Maxillofacial Surgery Department, is part of a national panel that created dental opioid guidelines for the Center for Opioid Research and Education. They emphasize using over-the-counter pain relievers when possible.

“You have to control pain,” Lecholop says. “Opioids can help do that, and they aren’t going away. But I think there

are smarter ways to help a lot of patients who really don’t need them.”

For example, if you need a tooth pulled, but it’s not a complicated situation requiring a surgeon, acetaminophen and/or ibuprofen should do the trick, Lecholop says.

When there’s more pain involved, if opioids are prescribed, the number should be limited. He typically doesn’t prescribe more than eight to 10 tablets of oxycodone or hydrocodone for any procedure.

“Anybody who needs more than that needs to come back in to me to be evaluated to see what’s going on. Eight tablets will get you about two days if you’re taking them every four hours, depending on if it’s oxycodone or hydrocodone,” he says.

“In the past we used to write oxycodone, which is a stronger medication than hydrocodone, but now it seems like we’re writing pretty much all



Photo by Anne Thompson

Dentists try to ease patients’ pain with over-the-counter medications when possible.

hydrocodone now. We’re realizing that patients do just fine with hydrocodone rather than oxycodone. I think we’re getting good results with that.”

The goal is to ease pain without leaving people dependent on the drugs.

Opioid overdoses kill more than 130 people a day in the United States.

Dentists are second only to family doctors when it comes to prescribing opioids. And a recent study found American dentists were much more likely than their English counterparts to recommend opioids for their patients. The researchers suggested this is because England has national guidelines for treating dental pain that discourage the use of opioids.

But American dentists are now well aware that despite what drug companies once claimed, opioids are addictive. A teenager whose wisdom teeth are removed doesn’t need weeks’ worth of painkillers. And even short-term use can lead to addiction if not carefully monitored. It can also become a gateway to illegal opioids such as heroin and fentanyl.

The dean of the MUSC College of Dental Medicine, orthodontist

Sarandeep Huja, D.D.S., Ph.D., says he and his colleagues take their responsibility very seriously. “We use data to show our patients the serious side effects of prolonged opioid use and the effectiveness of multiple non-opioid medications in moderate to severe pain management.”

That includes long-acting local anesthetics that can ease pain after surgery. “We will continue to be actively involved in understanding the opioid crisis and the management of the fallout from the crisis at every level.”

One of those levels involves students and residents at MUSC. Residents are new dentists who want to specialize and need more training. Lecholop says they’re all learning how to prescribe painkillers responsibly.

“The most important thing for us to do at MUSC is teach our students smart prescribing habits, how to monitor for abuse and how to counsel your patients on why you’re only writing X amount when maybe they’ve had someone else write a lot more. I think it comes down to educating the prescriber and educating the patient of the risks of opioid use.”

The President’s Values in Action Award

Honoring five employees each year who help fulfill MUSC’s vision statement, *Leading Health Innovation for the Lives We Touch*, by demonstrating the five MUSC values:

- **Compassion**
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Visit horseshoe.musc.edu/everyone/values-in-action to learn more.



Changing What’s Possible

MUSC wins gold award for campuswide wellness efforts

By CINDY ABOLE

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MUSC is among 139 universities and colleges worldwide to be honored by Exercise is Medicine for creating a culture of wellness on campus. MUSC's Office of Health Promotion, Office of Student Health, Counseling and Psychological Services and the MUSC Wellness Center helped MUSC earn a gold-level designation from the Exercise is Medicine On Campus (EIM-OC) program of the American College of Sports Medicine. The award was presented at the ACSM annual meeting in Orlando, Florida, on May 29.

Of the 139 campuses recognized this year, MUSC was among 55 institutions

recognized with this year's gold award. A total of 56 silver and 28 bronze awards were also presented. MUSC has previously been recognized for wellness initiatives with a bronze award from this organization.

Office of Health Promotion director Susan L. Johnson, Ph.D., attended the ACSM meeting and accepted the award from EIM-OC leaders.

"We are excited to be recognized by the ACSM as a gold-level Exercise is Medicine campus. This was one of our Imagine MUSC 2020 Healthy Communities outcome goals," said Johnson.

Robyn Stuhr, vice president of the Exercise is Medicine program, presented the awards.

"We are thrilled to recognize these campuses' commitment to make movement a part of daily campus culture and give students the tools to cultivate physical activity habits that will benefit them throughout their lives," said Stuhr. "These campus programs are nurturing future leaders who will advance a key tenet of Exercise is Medicine:

"These campus programs are nurturing future leaders who will advance a key tenet of Exercise is Medicine: making physical activity assessment and promotion a standard in health care."

Robyn Stuhr

making physical activity assessment and promotion a standard in health care."

Johnson also recognized Master of Public Health intern Olivia Hesslein for her time and contributions in coordinating the EIM-OC project as part of

her capstone experience conducted in fall 2018.

EIM-OC works with universities and colleges to promote physical activity as a vital sign of health and encourages faculty, staff and students to work together to improve the health and well-being of the campus community.

It launched its recognition program in 2014 to honor campuses for their efforts to create a culture of wellness. Schools can earn a gold, silver or bronze status based on their activities. Gold-level campuses have created a referral system where campus health care providers assess student physical activity and refer students as necessary to a certified fitness professional as part of medical treatment. Silver campuses engage students, faculty and staff in education initiatives and make movement part of the daily campus culture, while bronze-level campuses promote and generate awareness of the health benefits of physical activity.

To read a complete list of recognized schools and learn more about the EIM-OC program, visit https://www.exerciseismedicine.org/support_page.

**Exercise
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Photo provided

MUSC Office of Health Promotion director Dr. Susan Johnson, center, received the Exercise is Medicine On Campus 2019 Gold Campus certificate award from Dr. Robert Sallis, left, Exercise is Medicine advisory board chairman, and Dr. Renee Heil, Exercise is Medicine On Campus committee chairwoman. MUSC is among 55 gold award winners out of 139 colleges and institutions recognized for creating a culture of wellness on their campuses.



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July 1— Segment #1

Topic: Preventing Health Issues While Traveling Internationally with Children

Guest: Dr. Andrea Summer

Pediatrics professor Dr. Andrea Summer talks about keeping kids safe from illness and injury while traveling internationally. Summer is director of the Pediatric Travel Clinic at MUSC.

July 1 — Segment #2

Topic: Bipolar Disorder

Guest: Dr. Christopher Pelic

Dr. Christopher Pelic will discuss the specifics about bipolar disorder in adults. Dr. Pelic is a professor in the Department of Psychiatry and Behavioral Sciences.

July 8 — Segment #1

Topic: Diabetic Retinopathy

Guest: Dr. Jeffrey Blice

Vitreoretinal disease specialist Dr. Jeffrey Blice will share information about diabetic retinopathy ~ one of the eye conditions that sometimes can develop among people with diabetes. Dr. Blice is a clinical associate professor of ophthalmology at the Storm Eye Institute.

July 8 — Segment #2

Topic: Growth Spurts in Childhood

Guest: Dr. Deborah Ann Bowlby

Pediatric endocrinologist Dr. Deborah Ann Bowlby will talk about growth spurts during childhood. Dr. Bowlby is

an associate professor of pediatrics and director of the Division of Pediatric Endocrinology at MUSC Children's Health.

July 15— Segment #1

Topic: Preventing Work-Related Burnout among Health Care Professionals

Guest: Dr. Teresa Stephens

Certified nurse educator Dr. Teresa Stephens will share tips about preventing work-related burnout and developing resilience among health professionals. Dr. Stephens is an associate professor in the College of Nursing and has been involved in research related to resilience during the past 11 years.

July 15 — Segment #2

Topic: Risk Factors and Early Intervention for Eating Disorders

Guest: Dr. Rene Rienecke

Dr. Rene Rienecke will discuss risk factors and the importance of early intervention for eating disorders. Dr. Rienecke is an associate professor in the Department of Pediatrics and the Department of Psychiatry and Behavioral Sciences. She is also the director of the Friedman Center for Eating Disorders at MUSC.

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