

EMERGENCY

PERSPECTIVES

FALL
2020

COVER STORY

The Grand Opening of the New SSM Health Saint Louis University Hospital

SPOTLIGHT

Response to COVID-19

The Impact on Stroke and Pediatric Patients

INTERVIEW

Kelly Baumer

CLOSER LOOK

George Miller

EMERGENCY PERSPECTIVES

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This issue of
EMERGENCY PERSPECTIVES
 is dedicated to those who devote their lives

to the health and well-being of our community. In the last few months, some of our most dedicated first responders have been killed or critically injured in the line of duty. Sadly, we've also lost some frontline workers to COVID-19, including one of our own at SSM Health St. Mary's Hospital – Judy Wilson-Griffin – who also happened to be the first recorded COVID-19 death in St. Louis County.

We offer our sincerest condolences to their families, friends and colleagues, and we'll be forever grateful for their dedication and service. Please join us in honoring the following first responders – some active duty and some retired – who recently passed away or were killed in the line of duty:



Judy Wilson-Griffin, RN – Clinical Nurse Specialist at SSM Health St. Mary's Hospital

Judy Wilson-Griffin, RN, 63, a clinical nurse specialist at SSM Health St. Mary's Hospital, died on March 20, 2020, due to complications from COVID-19. She also happened to be the first recorded COVID-19 death in St. Louis County.

“Judy Wilson-Griffin was a beloved member of our SSM Health St. Mary's Hospital family. Our hearts break for her family and friends and we will keep them in our prayers as we cope with the loss of our cherished colleague and friend. One of our physicians put it best: ‘Judy was an incredible nurse, educator, leader and person. Her passion and dedication were second to none. She was a hero in the truest sense.’” – Statement from SSM Health

Wilson-Griffin worked for many years as a perinatal specialist and an advocate for changing systems to tackle mortality rates. For example, when evidence demonstrated that maternal transport teams decreased infant and maternal mortality, she was determined to bring those results to Missouri. She was particularly motivated after learning black women and their babies had a higher mortality rate in the US. That spurred her to establish the first maternal transport team in Missouri when she worked at BJC. She did so again when she eventually moved to SSM Health St. Mary's Hospital.

She regularly called for change and evidence-based care, and she had a knack for doing the unorthodox for the benefit of those who needed her help. For example, in the 1980s, the care model for newborns was for them to remain in the nursery for a majority of their stay after birth. However, Wilson-Griffin directed the hospital staff that the baby should stay with the mother in her room overnight, since was going to take the baby home in a few days. She saw it as the right thing to do, according to her longtime friend and colleague, Pamela Lesser, director of perinatal services at SSM Health St. Mary's Hospital.

Wilson-Griffin brought that same dedication to the hospital and national policy committees on which she served, helping to develop protocols for maternal severe hypertension; massive transfusions for women; and rapid response to hemorrhage. She was also an advocate for her profession and recently called for the importance of recognizing perinatal nursing and the PNCSN certification exam at the National Association of Clinical Nurse Specialists annual meeting.

Shirley Gastler, EMT-P, team leader for SSM Health St. Louis regional EMS, first met Wilson-Griffin more than seven years ago when they worked together on some perinatal programs for SSM Health.

“Judy was always helpful and kind. When EMS had a question regarding the safe transport of OB patients, Judy was the person I went to for expertise,” said Gastler. “Her presence is certainly missed, but her extraordinary spirit and legacy will undoubtedly continue.”

Judy Wilson-Griffin, RN (continued)

Wilson-Griffin also supported Generate Health – a coalition dedicated to uniting the community to accelerate positive change in the areas of health and well-being of moms, babies and families – as a founding board member who helped train staff. Through her work there, she helped launch a fetal and infant mortality program in Missouri – another first for the state.

Besides her nursing career, Wilson-Griffin served on active duty during the Gulf War with the U.S. Navy Reserve Nurse Corp, and last fall, she was recognized as ‘Nurse of the Year’ in the women’s health category by the March of Dimes.

We send our heartfelt condolences to Wilson-Griffin’s two stepchildren, Valerie Griffin and Tyrone Griffin, Jr., as well as her many colleagues, friends and former patients.

EMTs



Billy Birmingham – EMT, Kansas City Fire Department, Kansas City, Mo.

Billy Birmingham, EMT, 69, with the Kansas City Fire Department in Kansas City, Mo, died on April 13, 2020, after battling COVID-19 for three weeks and succumbing to complications. He had been with the department since 2010. He worked for Mast Ambulance Service from 1998 to 2010, when KCFD took over the city’s ambulance service.

“Billy was part of the KCFD family for the past 10 years, but part of the MAST family for many years prior,” said Donna Maize, chief of the Kansas City Fire Department. “His passing represents a personal loss to all of us who knew him and cherished both his friendship and professionalism.”

Birmingham was an EMT for more than 22 years and was beloved by the many who knew and worked with him. He leaves behind two children.

“Billy did not lose his life. He gave his life in service to this community. He is truly a hero, he is truly our friend,” said Tim Dupin, president of the IAFF Local 42, of which Birmingham was a member. “We love him, we love his family. We will never forget his service, his commitment to this city.”

Firefighters



Captain Christopher “Chris” H. Francis – Firefighter, Mehlville Fire District

Captain Christopher “Chris” H. Francis, a firefighter with the Mehlville Fire District, lost his battle with cancer on April 2, 2020. He was also a member of the International Association of Fire Fighters Local 2665. Prior to serving with the Mehlville Fire District, he worked at Abbott EMS. He leaves behind four kids and six grandkids.



David F. Jameson, Jr. – Firefighter, Independence, Mo. Fire Department

Hazardous material technician, David F. Jameson Jr., 52, a firefighter with the Independence Fire Department, died on May 7, 2020 after responding to an illegal burn.

He experienced shortness of breath and remained in a vehicle at the site, but later fell unresponsive and died at a nearby hospital.

“David’s passing was a sudden and unexpected loss for the department and his family,” said Independence Fire Chief Doug Short. “David’s history included many letters of commendation and heroism during his career.”

Jameson had been with the department for 23 years, working primarily out of Station 5 in southwest Independence. He leaves behind 10 children.



Lt. Ron Wehlage – Lieutenant and Fire Marshal, DeSoto Rural Fire District of Missouri

Lt. Ron Wehlage, 40, a lieutenant and fire marshal with the DeSoto Rural Fire District of Missouri, died of a heart attack on June 30, 2020. He had recently finished a shift during which he had completed a medical run.

Wehlage had more than 21 years of firefighting experience. He spent 17 of those years with the DeSoto Fire District and four with the Hillsboro Fire Protection District. He also served as an EMT with the North Jefferson County Ambulance District and the Valley Ambulance District.

“At an early age, Ronald Wehlage chose a career path based on service to others,” said Missouri Governor Mike Parson. “He was committed to protecting others, educating residents and children about the importance of fire safety, and improving the lives of the people he served. Lieutenant Wehlage will be remembered for his devotion to ensuring the people of the DeSoto Rural Fire Protection were safe and secure.”

Police Officers



Officer Christopher “Tiffer” Ryan Walsh – Police Officer, Springfield, Mo. Police Department

Officer Christopher “Tiffer” Ryan Walsh, 32, with the Springfield, Mo. Police Department died on March 16, 2020, from gunshot wounds as he tried to stop a mass shooter, who also killed three others inside a local convenience store. He has been lauded for his bravery. Officer Walsh and fellow Officer Josiah Overton were the first police officers to arrive at the scene. Both officers were struck by gunfire. The suspect died from a self-inflicted gunshot wound.

“Chris died a hero, rushing in without regard to his own safety to protect members of his community,” said Springfield Police Chief Paul Williams. “His courageous actions serve as an example to us all.”

Officer Walsh was a model of the quiet courage and a sincere humility that his nation, community and family were blessed to have and saddened to lose. With a refreshing sense of humor and an instinctual desire to protect and defend, he led a life that anyone could be proud to have lived. He began his career with the Springfield Police Department in 2016, while he continued to serve honorably in The United States Army Reserves.

During his 14 years of honorable service to his nation, Officer Walsh served in two active deployments to a combat zone, where he received a Combat Action Badge, and other decorations for his selfless service. He achieved the rank of Sergeant, in the U.S. Army, and served in Operation Iraqi Freedom in 2008-09, and Operation Enduring Freedom in 2010-11, operating as a convoy security element, and as a logistical convoy lead vehicle scout.

Officer Walsh is the first Springfield police officer killed in the line of duty since 1932. He leaves behind his wife, Sheri, and daughter, Morgan.



Sheriff Andy Deric Clark – Police Officer, DeKalb County Sheriff’s Office and Cameron Police Department

Sheriff Andy Deric Clark, 43, a police officer with the DeKalb County Sheriff’s Office and the Cameron Police Department, was killed on June 3, 2020, in the line of duty when his vehicle crashed while he was responding to assist a deputy in an emergency situation.

Sheriff Clark had served in law enforcement for 22 years with the DeKalb County Sheriff’s Office and the Cameron Police Department. He was a man of many talents, as he was an insurance agent for several years, taxidermist, carpenter, and law enforcement officer. He is survived by his wife, four children, parents, and brother.

SSM Health SLU Hospital appoints Matthew Broom, MD, MBA, FAAP - Chief Medical Officer and Vice President of Medical Affairs



SSM Health Saint Louis University (SLU) Hospital selected Matthew Broom, MD, MBA, FAAP, to serve as its next vice president of medical affairs and chief medical officer (CMO). Broom began his new role on Monday, June 1, 2020.

Dr. Broom has served as the SSM Health SLU Hospital interim CMO since November 2019, while also performing full-time responsibilities as the Vice President of Medical Affairs and Chief Medical Officer of SSM Health Cardinal Glennon Children's Hospital. After 15 years, Dr. Broom stepped away from his role at SSM Health Cardinal Glennon, where he contributed his expertise in a variety of clinical and leadership roles, to assume these same positions at SSM Health SLU Hospital.

"We're extremely pleased to have Dr. Broom join our executive team at SSM Health SLU Hospital," said Steven M. Scott, president of SSM Health SLU Hospital. "He brings strong leadership, discernment

and clinical expertise to our complex adult academic ministry and will help us excel in continuing to provide a safe, high-quality clinical environment for our patients. His guidance and leadership will also be pivotal as we transition our clinical services to our Grand New SSM Health SLU Hospital in just a few short months."

Dr. Broom received his undergraduate degree from Saint Louis University and his Doctor of Medicine degree from Saint Louis University School of Medicine. Most recently, he received his executive MBA from Washington University - Olin Business School and received a certificate for leadership development for Physicians in Academic Health Centers from Harvard T.H. Chan School of Public Health. Dr. Broom spent more than four years in the United States Navy as a staff pediatrician and was also Medical Director of the Danis Pediatric Center at SSM Health Cardinal Glennon.

Through his tenure at SSM Health Cardinal Glennon and most recently at SSM Health SLU Hospital, Dr. Broom's performance has been exceptional. His efforts and early accomplishments have helped strengthen the partnership with SLUCare colleagues and relationships with other important offices throughout the St. Louis region and SSM Health System.

The MidAmerica Stroke Network announces new stroke coordinator: Ben Gierer, RN, ENLS



The MidAmerica Stroke Network (MASN) is continually working to improve overall stroke care through greater awareness, evidence-based practice, academic research, increased access to advanced care, and effective multidisciplinary collaboration. Supported by

an extensive team of stroke specialists, the Network plays a significant role in the quality stroke care for patients in the region.

In late 2019, the MASN welcomed a new stroke coordinator - Brendan (Ben) Gierer, RN, ENLS - to

the team. Gierer began his career at SSM Health SLU Hospital in 1991, working in both the trauma and neuro ICUs. He decided to join the stroke team for the opportunity to impact stroke care.

In this role, Gierer is largely focused on monitoring the hospital's stroke processes, implementing change to improve where we can, and developing processes to teach patients, families and the broader community about stroke and emergency stroke care. Working with one of the hospital's outreach executives, Jeff Wright, he also has the opportunity to visit hospitals within the MidAmerica Stroke Network and reach out to fellow stroke coordinators to offer advice and processes for improving care and to network with St. Louis' inner-city EMS services.

Upcoming Events

The Grand Opening of the Grand New SSM Health SLU Hospital

Tuesday, September 1, 2020

We're excited to officially open the doors to the Grand New SSM Health SLU Hospital. Details about the ribbon cutting and grand opening ceremony are still in the works, but we look forward to sharing this spectacular new hospital with our community soon!

The 13th Annual Advances in Acute Stroke and Neurointervention Conference

Saturday, October 3, 2020

ONLINE ONLY

Due to COVID-19 and safety concerns, we have moved the annual stroke conference from the

Busch Student Center to an online forum instead. However, we promise to still deliver a valuable, engaging conference for all of our participants. Please register at <https://tinyurl.com/SLUStroke2020> We hope to see you all there!

2020 Annual Trauma Symposium - CANCELED

Unfortunately, with the current COVID-19 protocol that prohibits large gatherings, we've had to cancel our 2020 Annual Trauma Symposium. We are exploring possible online options and will keep you posted if that becomes a viable alternative. Thank you for your continued support!

Recent Events

Thank you to our local area partners and friends!

We wanted to give a special shout-out to the many area businesses, organizations and individuals who have supported SSM Health Saint Louis University Hospital's frontline workers and partners during the COVID-19 pandemic.

From donated face masks and other personal protective equipment to pizza and doughnut deliveries, our frontline health care heroes have enjoyed some special treats to keep their spirits lifted during such difficult times. In May 2020, the hospital was even treated to a B-2 Spirit stealth bomber flyover courtesy of the Missouri Air National Guard's 131st Bomb Wing.

We've been overwhelmed by the generosity and consideration we've seen from so many, including:

- Imo's pizza from St. Louis' own, actor Jon Hamm;
- Donuts from The Salvation Army St. Louis on National Donut Day;
- Catered meals for the entire hospital from MLS4THELOU;

- Pizzas from World Wide Technology Raceway;
- A parade of appreciation from the St. Louis Metropolitan Police Department;
- Face shields from SLU basketball coach, Travis Ford and his wife;
- Motivational posters from the Girl Scouts of Eastern Missouri;
- Pizzas from Imo's Pizza;
- Face masks from the Saint Louis Ballet;
- 1,500 hanging flower baskets from Growing Green;
- The St. Louis Cardinals and St. Louis Blues for visiting the hospital and celebrating our health care heroes.

We're truly grateful to the greater St. Louis community for the strong show of love and support for our hardworking health care heroes. It's been a bright light in the darkness of some difficult days.



2020 FALL EDITION

Introduction

Coping in a COVID-19 World While Welcoming Hope and Progress for the Future.

To put it simply, we're living in unprecedented times. Since March 2020, life as we've known it changed, practically overnight. Now, several months later, the world is still struggling to navigate and cope with the uncertainties surrounding the COVID-19 pandemic. It seems we have more questions than answers when it comes to this virus and the havoc it's wreaked on our society.

Distance learning, social distancing, face masks, furloughs, and unemployment have taken center stage in our daily dialogue. We're adapting to this 'new normal' while wondering if we'll ever experience the life and world we knew before COVID-19. Will there even be a post-COVID-19 era, or will we be living with this indefinitely? Time will certainly tell, and the promise of a vaccine, which is currently in development, will offer a great deal of hope and reassurance once it becomes available.

In the meantime, we must all continue working together to protect ourselves and each other. That means abiding by the social distancing guidelines when in public, avoiding large gatherings, staying home when possible, frequent hand washing and wearing a mask whenever you're in public. In fact, on July 3, 2020, masks were officially made a requirement

for residents in St. Louis City and St. Louis County for the foreseeable future. These measures are scientifically proven to offer the best protection and prevention when it comes to the spread of COVID-19. We know many have grown weary of this pandemic, but we applaud everyone for doing their part.

"Every individual has an opportunity to help the greater St. Louis community 'contain' the spread of this virus and not subject many to potential infection; however, that entails that we all make personal sacrifices for the greater good," said Michael Lim, MD, FACC, FSCAI, a SLUCare interventional cardiologist and director of SSM Health SLU Hospital's Center for Comprehensive Cardiovascular Care (C4). "This is extremely hard, as we are not by nature socially distant, and when we practice such behavior, we seem to have to give up many of the things that we enjoy the most. I'm hopeful that the people of Saint Louis avoid getting frustrated and continue to do everything they can to help this community."

We'll continue to lean on the health care researchers, doctors and scientists who are working diligently to better understand this disease and its spread. The health care industry continues to be at the heart of this medical battle, fighting on the frontlines



every day to provide the quality medical care that every patient needs and deserves, while trying to understand and manage this highly contagious, rapidly spreading disease. Of course, it seems the protocol and guidelines related to COVID-19 are changing daily, requiring health care workers to respond and adopt these revised measures accordingly.

Despite the lingering concerns, questions and frustrations with COVID-19, there are signs of progress and hope for the future. At SSM Health Saint Louis University Hospital, there is much to celebrate with the upcoming opening of the 'Grand New' hospital. This state-of-the-art facility promises to bring much light - literally and figuratively - to the community. The anticipation of this extraordinary vision finally coming to life has been building for years. Rest assured, the final product will have been worth the wait, and we can't wait for all of you to see it when the doors officially open on Tuesday, September 1, 2020.

In this 2020 fall edition of Emergency Perspectives, we examine the intricate, detailed process that went into the planning, designing and building of the new hospital and ambulatory care center. We hear from Chief Dennis Jenkerson of the St. Louis

City Fire & EMS, about his excitement for this brand-new hospital and his role in the planning process.

In our Q&A, we sat down with Kelly Baumer, vice president of clinical services at SSM Health SLU Hospital, who spearheaded the entire project from day one. She discusses the best practices and challenges she observed throughout the years-long process, as well as the extensive number of end-users who were consulted on certain aspects of the design.

Living in the age of COVID-19, we highlight some critical findings and observations that our SSM Health and SLUCare physicians have made, including the connection between COVID-19 and stroke in younger patients and how the pediatric population has been impacted by the disease, beyond the disease itself. We also discuss the ways that SSM Health SLU Hospital and SLUCare are responding to COVID-19 to better protect patients, visitors, physicians and staff.

Thank you for interest and support of this publication. As always, we welcome any questions and/or feedback you might have. Please don't hesitate to contact Helen Sandkuhl at helen.sandkuhl@ssmhealth.com. ❖



The Grand Opening

of the New SSM Health Saint Louis University Hospital and Center for Specialized Medicine Three-Year Project is culmination of collaborative, state-of-the-art design.

Since the official groundbreaking on August 31, 2017, SSM Health Saint Louis University (SLU) Hospital has been building an 802,000 square foot, \$550 million transformational replacement hospital and center for specialized medicine on Grand Boulevard, in the heart of Midtown redevelopment. This project is a positive investment in the city's workforce and economic development.

"As an organization, our focus on serving others is a high calling," said Steven Scott, president of SSM Health SLU Hospital. "The new hospital embodies our shared passion for serving the greater St. Louis community in so many ways, and we're excited to showcase this to everyone soon."

Nearly three years since construction began, the time has come for the grand opening of this incredible,

state-of-the-art academic medical center. Construction has remained on schedule even amidst the COVID-19 pandemic. On Tuesday, September 1, 2020, the Grand New SSM Health SLU Hospital will officially open its doors, bringing the most advanced patient-centered facilities to the heart of St. Louis to meet the growing needs of our community and support medical advancements and innovation.

"We were fortunate to have hundreds of people – from our own executives, faculty, physicians and staff to patients, their families, visitors and other end-users – come together to help us envision the best possible healing environment for our patients," said Kelly Baumer, vice president of clinical services at SSM Health SLU Hospital. "The final product is the culmination of these collective efforts, which will usher in a new era in patient-centered health care."





Many areas of the hospital feature local artwork and floor-to-ceiling windows to maximize natural light.

State-of-the-art hospital will better serve community

Occupying 10 floors in the main hospital and four floors in the center for specialized medicine, these new facilities house sophisticated technology and design that supports and elevates the hospital's academic-medical partnership with the Saint Louis University School of Medicine. With 316 private inpatient rooms and convenient outpatient services, the hospital will better serve diverse patient and family needs with behavioral health, prevention, and emergency medicine.

Some of the state-of-the-art features include all private patient rooms; larger ICUs; healing gardens; and a large parking garage with valet services. The operating room space is substantially larger, and there will be a specific pathway to support living organ donation. This pathway area maintains sterility and eases the transplant process when one person donates to another. Traditionally, the surgeon harvests the organ and takes that organ out of the OR room, breaking the sterile field to go out into another area and back into a sterile field in another OR. With this new concept, the organ never leaves the sterile field. Plus, the recipient receives the donated organ much more quickly, which is better for the patient and the organ.

The Emergency Department (ED) and Level I Trauma Center in the new hospital is three times larger, better accommodating the critical care needs of 75 outlying partner clinics and nearly 50,000 patients annually, within a 250-mile radius across Missouri and Illinois. There was a great deal of careful planning and design that went into the new emergency department, which features CT imaging as well as streamlined access to the operating room and cath lab.

EMS advisory committee provides critical design input

In fact, when the hospital first met in 2015 to begin planning and designing the new facility, a special advisory committee was created, comprised of various EMS representatives from across the region, including Air Methods, Air Evac, St. Louis Metropolitan Fire Department's EMS Services, and AMR, to name a few. This committee was integral to the plans for the new ED.

"It was critical that the new hospital and ED featured components that cater not only to our medical staff, but also to first responders who transport trauma patients here," said Helen Sandkuhl, RN, MSN, CEN, TNS, SANE, FAEN, administrative director for SSM Health St. Louis regional EMS, SSM-SLUH disaster and clinical outreach services at SSM Health SLU Hospital. "With countless first responders entering and exiting the hospital every day, our goal was to make that process as seamless and effective as possible for everyone involved - from EMS and medical staff to patients and their families."

St. Louis City Fire Chief Dennis Jenkerson was one of the first responders Sandkuhl recruited to help with the plans for the new ED. Given his long history of working in EMS and fire in St. Louis and his familiarity with the hospital, his perspective is invaluable. He was also excited to have this opportunity to be involved.

"When the rumor about building a brand-new hospital on SSM Health SLU Hospital's campus first began, I was skeptical at first," recalled Jenkerson. "Typically, when you hear about 'new hospitals' in big inner cities like St. Louis, it's often an addition to the existing building rather than an entirely new one. To know that this hospital would be a new state-of-the-art structure on the same campus was really exciting news."

(continued)



St. Louis City Fire Chief
Dennis Jenkerson

Jenkerson and a team of other area first responders – including W. Scott Gilmore, MD, EMT-P, FACEP, Medical Director for the St. Louis Fire Department; and Tracey Swabby, EMT/NEMD, East Region business development manager at Abbott EMS/American Medical Response – attended some of the initial planning meetings back in 2016.

“We had so many good people who weighed in on this project,” said Jenkerson. “Everyone had an opportunity to voice their opinions, pointing out significant issues and even the little things that affected their abilities to do their jobs effectively. And now, we can look forward to having this state-of-the-art, EMS-friendly facility that will help raise the level of care provided in the community.”

Emergency Department recommendations and implementation

Jenkerson, Dr. Gilmore and Swabby – along with others on the EMS advisory committee – examined the hospital’s current emergency department and its limitations before offering up the following suggestions for the design of the new emergency department:

- Create a dedicated space for EMS crews to write up their reports.
- Designate a decontamination area where medics can clean up.
- Make the restrooms more easily accessible.
- Improve access to the trauma bays.
- Be able to accommodate more ambulances.
- Designate parking spots for supervisor vehicles near the ED entrance.

“When the planning began, we knew the new emergency department would need to eliminate the ramps, blind spots and curves that have been so problematic with the original ED,” said Jenkerson. “After all, ease of access to the facility is key for all EMS crews, especially when they’re rushing to transport trauma patients. Having to maneuver a large

ambulance in a restricted space has been a challenge. There are also new safety concerns with transporting and receiving patients that need to be considered.”

Keeping these issues in mind, the EMS advisory committee made the following recommendations for the new emergency department’s ambulance entry/exit area:

- Redesign the ambulance bay area, removing the columns in the middle, which could be easily hit or backed into.
- Design the entry and exits so the ambulances can pull forward into parking spots and then leave by pulling forward into an additional drive lane without having to back up.
- Create safe egress for incoming and outgoing ambulances
- Add a covered ramp so weather doesn’t impede production.

All the input from the committee was well received by the hospital’s executives and two architectural firms, The Lawrence Group and HGA, who incorporated those key recommendations. Then, in February 2017, SSM Health SLU Hospital unveiled the final renderings of the new hospital and emergency department plans, which included the feedback and suggestions from the EMS advisory committee. Highlights include:

- Drive-through ramp (versus backing up);
- Dedicated decontamination area;
- Break room and area for EMS to write their reports;
- Dedicated bathroom for EMS personnel; and a
- Parking lot with 100 spaces for ED patients and visitors

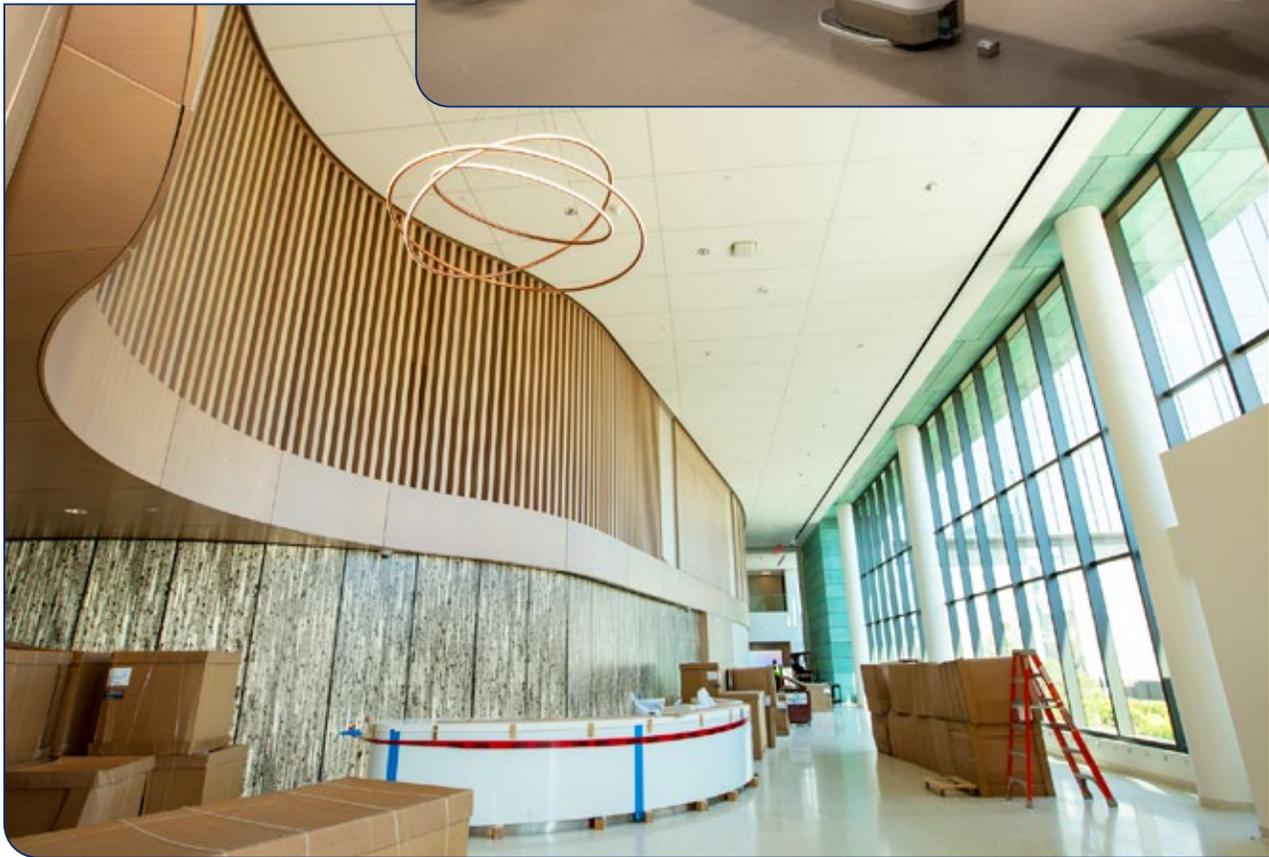
The addition of the clinical decision unit

Along with the new features in the ED, SSM Health SLU Hospital is also unveiling a new concept in trauma care to St. Louis with the clinical decision unit (also known as the CDU). This is a dedicated 10-bed care unit designed for ED patients, who aren’t necessarily ill or injured enough to be admitted to the hospital, yet may need further testing, treatment or observation, requiring them to stay longer than a typical emergency department visit. Each patient is continually evaluated to determine if he or she should be converted from observation to an inpatient admission.

Right: The operating room space in the new hospital is substantially larger, supporting inpatient and outpatient procedures including transplants.



Below: New main entrance lobby



As emergency departments face capacity constraints, the CDU can help reduce the high hospitalization rates, resulting in shorter lengths of stay and decreasing health care costs overall. Additionally, the CDU helps minimize the stay of those patients who can be safely discharged after a brief observation period.

Decreased duration of stay means decreased chances of acquiring health care-related infections. This benefit is critical especially during the cold and flu season or a pandemic situation like COVID-19.

The future of health care in St. Louis looks bright

“Throughout my career in St. Louis, I’ve always believed that we have the best health care services and hospitals in the country,” said Jenkerson. “With the building of this brand new, state-of-the-art facility, SSM Health SLU Hospital is ensuring that St. Louis remains at the forefront of the national health care industry, shining a bright light on our great city. Additionally, by building a facility like this, the hospital

(continued)

will continue to attract and retain the best doctors, who provide the best care, ultimately strengthening our entire region. Our EMS crews are really excited about it. They've been waiting for this 'gift' and can't wait to see it when it opens in September."

The project is part of a commitment made by SSM Health President/CEO William P. Thompson on September 1, 2015, the first day the organization assumed ownership of the hospital. He announced an ambitious five-year plan to construct a new hospital and center for specialized medicine that incorporates national best practices in patient-centered design while delivering an improved overall patient experience. As the largest Medicaid service provider in Missouri, SSM Health SLU Hospital is committed to serving the most vulnerable populations while operating as a destination hospital where patients choose premiere treatment and specialized care.

Getting a sneak peek

Both Jenkerson and Swabby were able to get a 'sneak peek' of the new hospital in July 2020, six weeks prior

to the scheduled grand opening. Sandkuhl was excited to be able to showcase this beautiful gift to some of the area EMS partners who had a hand in the planning and design. Needless to say, Jenkerson and Swabby were impressed by what they saw. They – along with many others – are eager for September 1.

"Getting a behind-the-scenes tour of the new hospital and ED, it's clear that SSM Health SLU Hospital took everyone's input to make it the best it could be. This new facility was built with extreme care and functionality to provide the best patient care and customer service for their care partners," said Swabby. "From the EMS perspective, teamwork is the only way that we can provide the best patient care for the people of the St. Louis community. That teamwork mentality is alive and well at SSM Health SLU Hospital. I'm really looking forward to seeing the new hospital come to life and continuing that care partnership with SSM Health SLU Hospital going forward. Well done!"

We agree completely and can't wait to unveil this gift to everyone soon! ❖



SSM Health SLU Hospital and SLUCare Physician Group's Response to COVID-19: Programs and measures to protect patients, visitors, physicians and staff.

On March 13, 2020, President Trump declared a national emergency to support the response efforts for the COVID-19 outbreak. At the time, most people couldn't fathom what was to come. Initially, the larger metropolitan areas around the country seemed to be the most affected with grim record-setting reports every day.

Four months later, the world is still inundated with a steady stream of COVID-19 cases; however, many states are now experiencing surges, especially those areas that have loosened restrictions, allowing more people to re-enter the public without observing the social distancing and mask requirements imposed by state and local governments. Memorial Day and Fourth of July celebrations only seem to have added to these surges.

Unfortunately, Missouri is one of those states experiencing a surge in COVID-19 cases. In fact, on July 7, 2020, Missouri set the record for the most COVID-19 cases reported in a single day with 788 additional cases, pushing the state's total to more than 25,000 including 1,042 deaths.

Beyond the rising infection rate, the virus is impacting the public in other ways, particularly when it comes to their health care.

"Hospitalizations for heart attacks and strokes have dramatically decreased since the pandemic began," said Michael Lim, MD, FACC, FSCAI, a SLUCare interventional cardiologist and director of SSM Health SLU Hospital's Center for Comprehensive Cardiovascular Care (C4). "We believe this is reflective of people not seeking immediate medical attention for their symptoms out of fear of going to the hospital and getting infected by the COVID-19 virus. At SSM Health SLU Hospital, we've been exceptionally vigilant to ensure patient safety and avoid unnecessary exposure. We have great teams of people ready to offer immediate care to STOP a heart attack or a stroke once they arrive at the hospital. If people

seek care quickly, the long-term impact of a heart attack or stroke will be much less – so hopefully they won't make decisions out of fear, and instead make the best decisions for their overall health and well-being."

With the current state of COVID-19 in Missouri and across the region, the coming fall and winter months don't hold much promise that the disease will relent. Until there is a vaccine available, the best



Michael Lim, MD

everyone can do is follow the guidelines recommended by the St. Louis Metropolitan Pandemic Task Force officials and St. Louis City and County governments. It's also critical that our local health care systems are prepared to handle any surges that may arise.

That's what SSM Health Saint Louis University Hospital is focused on, particularly as the new hospital prepares to open its doors. Since the onset of the pandemic, the hospital and SLUCare Physician Group have implemented a number of safety measures to care for patients – COVID-19 and non-COVID-19 – as well as protect staff and visitors.

Virtual Visits Program

One of these measures includes the launch of SLUCare's Virtual Visits Program, which allow patients to have a one-on-one conversation with a provider from the comfort of their home via private video conference or even by telephone. It's a doctor visit without the doctor's office. These appointments are meant to address non-urgent medical needs, ensuring that

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patients don't ignore their medical issues or endure any discomfort unnecessarily. With this program, they have safe, effective options for examinations and treatments. The program has been well-received by many patients throughout the pandemic.

On-campus protective measures

“Our concern is always, first and foremost, our patients, but we’ve also had to take into consideration how we would protect the physicians, nurses, and staff, who are not in large supply to care for many patients,” said Dr. Lim. “We, along with other hospitals, implemented screening measures at the entrance of the hospital and limited visitors to reduce the spread. Elective procedures were also postponed for the interim. We’ve



been fortunate to not have to deal with many of the issues that have been depicted in the media that some of the hospitals in New York City and other places have, but we have to remain vigilant of a rapidly changing world with COVID-19. This disease is not going away anytime soon.”

For those working and/or visiting the hospital or doctors’ offices, there are six key measures that SSM Health SLU Hospital and SLUCare have implemented to better protect staff and patients:

- 1) Health Screenings** - All patients, visitors and staff are screened for COVID-19 before entering any of the campus buildings.
- 2) Social Distancing** - Waiting rooms have been rearranged and the number of patients and visitors have been limited to ensure appropriate physical distancing.
- 3) Pre-Registration** - Patients are called one to three days prior to their appointment to limit the number of employees they interact with while on site.
- 4) Masking** - Everyone is required to wear a mask or other face covering to protect staff, physicians and patients.
- 5) Enhanced Cleaning Protocol** - There is enhanced cleaning and disinfection processes in all areas of the hospital and physician offices to keep everyone safe.
- 6) Visitation Policy** - There is a limit to the number of visitors inside the hospital and physician offices.

These measures and considerations offer reassurance to the hospital’s physicians, staff and patients that everything being done is in the best interest of the community as a whole. It’s proven to help keep everyone safe and protected, allowing the hospital’s physicians, nurses and staff to better care for patients.

“I’ve been personally overwhelmed by the dedication, compassion, and perseverance of the nursing staff and medical intensive care team throughout this crisis,” said Randall Edgell, MD, FSVIN, a SLUCare interventional neurologist and the director of the MidAmerica Stroke Network at SSM Health SLU Hospital. “This is especially true of the neurology and neurosurgery nurses whose floors and ICU became the primary location that COVID-19 patients were housed. It’s been inspiring to witness.”

Going above and beyond to help in other ways

SSM Health SLU Hospital’s EMS and clinical outreach teams have been assisting patients requiring surgery to get COVID-19 testing with 48 hours before surgery. This requires someone to be available on Saturdays and Sundays, so the teams have been working every weekend to make sure these patients are able to undergo surgery.

“We’ve also assumed responsibility for assisting in the COVID-19 testing of all pre-hospital providers in the City and County, including Police, Fire and EMS,” said Helen Sandkuhl, RN, MSN, CEN, TNS, SANE, FAEN, administrative director for SSM Health St. Louis regional EMS, SSM-SLUH disaster and clinical outreach services at SSM Health SLU Hospital. “We’ve picked up this extra work, because it’s the right thing to do. Ultimately, we’re doing all services... not just the services that we cover.”

Looking ahead

With the recent surge of COVID-19, the threat of a new swine flu in China and the upcoming cold and flu season, things seem rather grim. However, health care experts caution that if we all do our part, we can help reduce the infection and hospitalization rates in the US and beyond.

“We cannot let our guard down as we head into the fall and winter months,” said Dr. Edgell. “Until we have easily accessible, quick testing, effective treatments, and most importantly, effective vaccines, we have to follow social distancing and mask-wearing guidelines.” ❖

The Impact of COVID-19 on Stroke Patients: From a delay in seeking timely treatment to a possible correlation between stroke and the virus in younger patients.

With the world living through a pandemic viral outbreak, emergency medicine is front and center in the fight to treat acutely ill patients who've tested positive for COVID-19. Some of the largest metropolitan areas - New York, Chicago, New Orleans, Detroit - have been the hardest hit and the volumes in their emergency departments (ED) reflect that accordingly.

Fewer Patients (Non-COVID-19) are seeking emergency medical treatment

On the other hand, certain parts of the country - like St. Louis - have EDs that aren't nearly as busy as they used to be. It's somewhat eerie. According to the National Syndromic Surveillance Program (NSSP), ED visits declined 42 percent during the early COVID-19 pandemic, from a mean of 2.1 million per week (from March 31 to April 27, 2019) to 1.2 million (from March 29 to April 25, 2020). Although visits have increased since the start of the pandemic,

the end of May 2020 remained 26 percent below the corresponding week in 2019.

With layoffs and stay-at-home/work-from-home orders, fewer people are driving, which may lead to lower presentations with traumatic injuries. Fear is also a factor. Many people are avoiding doctors and hospitals altogether based on a fear of contracting COVID-19. This means they may be putting off critical, life-saving medical treatment for conditions such as heart attacks and strokes.

In St. Louis, the emergency departments have seen fewer patients with traumatic accidents, heart attacks and strokes since COVID-19 emerged here in March 2020.

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Randall Edgell, MD

"It's deeply concerning to see such a steep decline in the number of patients (non-COVID-19) visiting the ER," said Randall Edgell, MD, FSVIN, a SLUCare interventional neurologist and the director of the MidAmerica Stroke

Network. "In certain cases, such as stroke, the narrow window to halt and reverse symptoms is lost, possibly causing irreparable damage. These patients need to be seen within a few hours of the onset of symptoms – not days or weeks later. Time lost is brain lost."

Although our society remains largely focused on managing and reducing the spread of COVID-19, strokes are still happening. In fact, the added stress and anxiety that people are feeling from this pandemic isn't helping. Stress can aggravate the key risk factors for stroke, such as high blood pressure, high cholesterol, obesity, diabetes, artery disease,

heart disease, and smoking. Stress can also lead to unhealthy behaviors like reduced physical activity and unhealthy eating, which many people may be struggling with while quarantining at home.

The strong correlation between stroke and COVID-19 in younger patients

There is also new evidence showing a strong correlation between strokes and COVID-19. On April 25, 2020, The Washington Post reported a surge in cases of strokes among young and middle-aged COVID-19 positive patients in those communities hardest hit by the virus:

"The analyses suggest coronavirus patients are mostly experiencing the deadliest type of stroke. Known as large vessel occlusions, or LVOs, they can obliterate large parts of the brain responsible for movement, speech and decision making in one blow because they are in the main blood-supplying arteries. Many researchers suspect strokes in COVID-19 patients may be a direct consequence of blood problems that are producing clots all over some people's bodies. And, in some cases, patients have more than one large clot in their heads."

A few days later, on April 28, 2020, The New England Journal of Medicine published a letter of observation,

which was submitted by a team of stroke specialists in New York City – one of those cities hardest hit by the virus. The letter details five case studies of young patients (ages 33 to 49) who suffered strokes at home from March 23 to April 7, 2020. They each experienced sudden symptoms of large-vessel stroke – slurred speech, confusion, drooping on one side of the face and a dead feeling in one arm – yet delayed seeking treatment due to fears of COVID-19.

“The association between large-vessel stroke and COVID-19 in younger patients is still unclear,” said Dr. Edgell. “We are learning more and more every day about this novel virus, trying to understand its pathophysiology and long-term effects. However, these findings make it clear that further investigation into the correlation between stroke and COVID-19 patients in younger patients is warranted.”

A new study released in May 2020 also found that severe inflammation from COVID-19 might lead to a buildup of plaque that can increase the risk of stroke. Additionally, strokes that accompany the novel coronavirus appear to be more severe. According to an analysis by a team of doctors from NYU School of Medicine, published online in *Stroke*, of the 3,556 hospitalized patients with a diagnosis of COVID-19, less than one percent (32 patients) had a stroke. However, the investigation also demonstrated that patients with both conditions were younger, had worse symptoms, and were at least seven times more likely to die than stroke victims who were not infected. ❖



SPOTLIGHT

COVID-19 and Children

Examining the Impact of COVID-19 at the Pediatric Level:

The adverse effects of the disease beyond the disease itself.

As we all continue learning more about COVID-19, there are many questions surrounding the impact of the disease on children. When schools closed back in the spring and camps were canceled this summer, it seemed that maybe children were more at-risk than first believed. Now we know that most of those measures were implemented largely to prevent them from catching and/or spreading the disease – not necessarily because children were at an increased risk.

In fact, according to the Centers for Disease Control (CDC), children do not appear to be at higher risk for COVID-19 than adults. While some children and infants have been sick with COVID-19, adults make up most of the known cases to date. Additionally, children appear to have a milder course of disease when they do contract the disease. Many children are also asymptomatic or have atypical symptoms such as gastrointestinal issues, which can make it harder to screen.

Limited cases of MIS-C

Although it's rare, there's one particularly alarming side effect of COVID-19 in children: multisystem inflammatory syndrome in children (MIS-C), which is a condition where different body parts can become inflamed, including the heart, lungs, kidneys, brain, skin, eyes, and/or gastrointestinal organs. Unfortunately, we don't yet know what causes MIS-C, except that many children with MIS-C had the virus that causes COVID-19. Symptoms don't seem to appear until two to six weeks after they've been infected. Pediatric specialists and hospitals are paying close attention to those kids with high fevers as well as those with skin changes, cardiac issues or neurological changes.

"MIS-C can be serious, and in rare cases, deadly, but most children who were diagnosed with this condition have gotten better with medical care," said

Rachel Charney, MD, a SLUCare emergency medicine physician at SSM Health Cardinal Glennon Children's Hospital. "Fortunately, we've had low numbers of MIS-C in the St. Louis community. This will be an ongoing concern that we'll continue to monitor, particularly to understand the long-term effects. That's also why we're working with pediatric hospitals across the country to help develop algorithms that we can use to better monitor incidences of MIS-C going forward."



Rachel Charney, MD

Lessons learned thus far

Dr. Charney, whose research interests include disaster preparedness, has been attuned to the impact COVID-19 has had in the community, taking this opportunity to learn and better plan for the next wave or future pandemic. At the onset of COVID-19, she worked with her team to evaluate the hospital's screening algorithm to be sure it was accurate. They also isolated more pediatric patients (compared to what was being done for the adult patients) to gain a better understanding of how kids were responding to the disease. In late March, Dr. Charney also pushed for a telehealth option to help fill the void that was created when the clinics closed and fewer people were seeking medical treatment.

"Hospitals across the country have experienced a major drop in patient volumes since the start of COVID-19," said Dr. Charney. "Some of that has been due to the

general shutdown, canceled appointments, and fears of going to the hospital. For the pediatric hospitals, no school or camps means less contact and therefore fewer illnesses and injuries.”

The impact of COVID-19 on kids beyond the disease

Although COVID-19’s impact on pediatric populations seems to be more limited in terms of their physical health risk, the disease has affected kids in a number of other ways, from reduced socialization and education, inactivity, inadequate nutrition, disruption of their regular schedule, and overall mental health. Children particularly struggle to cope with such drastic changes, not fully understanding the reasoning behind these new social and lifestyle measures.

“Kids were impacted when schools closed earlier this spring, interrupting their education and socialization, which are critical to their overall development,” said Dr. Charney. “We know many kids also rely on school to provide meals, so the risk of malnutrition and neglect were also a concern. Finally, an increase of stress at home, general instability and mental health issues are additional challenges that COVID-19 created for the pediatric population.”

Guidance on school re-entry

In late June 2020, the AAP released its official guidance for school re-entry for the fall, which strongly advocates that all policy considerations for the coming school year start with a goal of having students physically present in school:

“Schools are fundamental to child and adolescent development and well-being and provide our children and adolescents with academic instruction, social and emotional skills, safety, reliable nutrition, physical/speech and mental health therapy, and opportunities for physical activity, among other benefits. Beyond supporting the educational development of children and adolescents, schools play a critical role in addressing racial and social inequity. As such, it is critical to reflect on the differential impact SARS-CoV-2 and the associated school closures have had on different races, ethnic and vulnerable populations.”

- The American Academy of Pediatrics

The guidance provides recommendations for a number of areas, including physical distancing measures for buses, hallways, playgrounds, and cafeterias; cleaning and disinfecting; testing and screening; face coverings and PPE; mental health; and organized activities such as sports. It’s up to each state, county and school as to how these measures will be implemented to ensure a safe return to school in the fall.

“The impact of screening at school level will be key to keeping kids safe in the classroom,” said Dr. Charney. “Our hope is that this process will go smoothly, avoiding another major shutdown. On the health care side, we will certainly be prepared if there is a surge, so we can respond accordingly with the care that’s needed.”

As Dr. Charney reflects back on the last several months, she is encouraged by how the health care community, St. Louis and SSM Health Cardinal Glennon in particular have responded to the COVID-19 outbreak: “Going through everything earlier this spring allowed us to better plan and not become overwhelmed on the pediatric side. I think every disaster and disaster drill reminds us how important good communication is to navigate uncertain times. We’ve prepared in the event that we do experience another surge.” ❖



CLOSER LOOK

EMS Spotlight
George Miller

George Miller, MBA, NRP, Regulatory Auditor: Missouri Department of Health and Senior Services, Bureau of EMS.

For many EMS professionals in the St. Louis region, they've worked in the field for decades, providing quality medical care and support while also pushing for necessary changes to continue to improve that care. George Miller, MBA, NRP, is one of those EMS professionals. For the last two-and-a-half years, he's worked as a regulatory auditor in the Bureau of EMS with the Missouri Department of Health and Senior Services.



George Miller

Miller has worked in the EMS field for more than four decades, beginning his career as a volunteer junior firefighter when he was just a junior in high school. His father was the Fire Chief for the Newburg, Mo. Fire Department, which inspired his own interest in becoming a paramedic and firefighter. He has held numerous EMS positions since then, including:

- Missouri Emergency Medical Services Association Board Member (15 years)
- MOTF (Modeling Task Force) FEMA Medical Coordinator (15 years)
- Captain Boone County Fire Protection District (6 years)
- American Heart Association, Advance Cardiac Life Support, Pediatric Advance Life Support, Basic Life Support Instructor (30 years)
- USAF/ANG Medical Technician/First Sergeant (more than 25 years)
- Staff for Life part-time crew (4 years)
- ARCH Medical Helicopter crew member (1 year)



Miller has also undergone extensive training in major disaster exercises, including Steel Cure I and Steel Cure II, which were two-day earthquake conferences in Cape Girardeau, Mo. These involved one of the nation's largest emergency response exercises.

"With one of the exercises, we flew 600 patients out of Cape Girardeau to Memphis, Tenn., Little Rock, Ark., Omaha, Neb., and Columbia, Mo., all within a 24-hour period," said Miller.

EMS accomplishments for Miller and Missouri

Although Miller has been involved in a number of EMS advances over the years, one of his proudest accomplishments was his work as the chair for the American Heart Association EMT committee in 1998. That was the year his committee worked to help pass the automated external defibrillator (AED) law, making portable defibrillators more accessible to the general public.

"There were a number of doctors back then who didn't believe the public should have access to AEDs," recalled Miller. "However, we knew the lifesaving value of the AEDs and worked to establish requirements for an AED program that also provided Good Samaritan protection for anyone who administered an AED on a person in cardiac arrest. It was worth the fight, especially knowing how many lives have been saved thanks to that law."

Miller is also proud of what Missouri has done in the area of time critical diagnosis (TCD). He witnessed the work that went into creating this comprehensive, coordinated initiative that's set the bar for other states.

"Missouri was the first state that implemented a TCD system," said Miller. "We know that identifying which hospitals are heart, stroke and trauma centers is key to saving lives and having positive outcomes. While other states have organized responses to each of these conditions, independently, no state has approached them on such an integrated systems level as represented by Missouri's TCD system."

Community paramedicine is the next EMS program that Miller believes Missouri will successfully implement. He works to help certify these programs and hopes they'll become more widespread across Missouri in the near future.

"Community paramedicine is a great program. For example, patients don't have to be readmitted after being discharged, because they have a community paramedic to follow up with them," said Miller. "The greatest obstacle is that the program needs financial help - except for in St. Louis, where the hospitals are helping to fund it. I hope other communities will follow St. Louis' lead. It's been discussed throughout the state, but no one has come up with a way to properly fund it to get the program up and running."

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Military and paramedic career

Miller has been instrumental in EMS in Missouri for more than 45 years, as an instructor, paramedic and advocate. However, his extensive EMS career and accomplishments wouldn't have been possible without his military service.

Miller enlisted in the United States Air Force in 1974, five days after high school graduation. He enlisted as an administrative specialist, but eventually obtained his EMT license in 1976 and worked as an emergency room technician at Ehrling Bergquist USAF Hospital at Offutt AFB in Nebraska for the next six years.



In 1980, Miller was assigned to Lakenheath AFB, in Great Britain for three years, where he was in charge of a four-bed ICU, 10-bed medical ward, and 10-bed pediatric ward. He decided to apply and then received a paramedic license in England in 1981. Then, he returned to

St. Louis in 1983, working as an ICU technician at Scott AFB for one year before transferring to the 131st Tactical Air Command Hospital at Lambert Field.

Miller then moved to Columbia, Mo., where he joined the Boone County Fire Protection District as a volunteer firefighter and worked as a paramedic for Fenton Ambulance Service (owned by Columbia Regional Hospital). In 1987, he was hired full-time at University of Missouri Hospital and Clinics Ambulance Service, while working part-time as a paramedic at Boone Hospital Ambulance Service. In November 1988, Miller moved back to St. Louis and worked full-time with Christian Hospital Ambulance Service and full-time with ARCH Medical Helicopter Service as a paramedic.

In December 1989, Miller assumed the emergency medical services coordinator position in the Emergency Services Department at UMHC in Columbia, Mo., where he taught numerous EMT and paramedic programs every year. He also was an American Heart Association National Faculty for Basic Life Support, Affiliate Faculty for BLS, Advance Cardiac Life Support, Pediatric Advanced Life Support, and Emergency Cardiovascular Care Committee Chair for the State of Missouri.

In 1995, Miller joined the Missouri Task Force One, FEMA Urban Search & Rescue team as a Medical Team Coordinator. His first deployment was to New York City on 9-11-01 for two weeks at Ground Zero. In 1999, he retired from the military after more than 25 years and was awarded numerous military medals, including Meritorious Service Medal and three Air Force Commendation Medals.

Today, Miller has his own business, Missouri Emergency Medical Education, LLC, and is currently an American Heart Association Training Center and Health and Safety Institute Training Center. Before his position with the Missouri Department of Health and Senior Services, Bureau of Emergency Medical Services as a regulatory auditor, Miller was in the position as a deputy chief of operations/education and human resource officer with Marion County Ambulance District in Hannibal, Mo.

Role with the Bureau of EMS for the State of Missouri

The Bureau of Emergency Medical Services (EMS) is responsible for protecting the health, safety and welfare of the public by assuring that emergency medical services provided by ambulance services, emergency medical response agencies, training entities and emergency medical technicians meet or exceed established standards. It investigates complaints and may exercise its authority to deny, place on probation, suspend or revoke the licensure of an ambulance service, training entity, emergency medical response agency, and emergency medical technicians when statutory or regulatory violation is substantiated.

As a regulatory auditor in the Bureau of EMS with the Missouri Department of Health and Senior Services, Miller serves the St. Louis and southeast regions of the state. His work recently brought him to SSM Health Saint Louis University (SLU) Hospital during the construction of the new hospital, specifically with regards to the new ground-based helipad. Given Miller's history as a flight paramedic, the hospital wanted his input.

"I visited the new helipad area along with representatives from ARCH and Air Evac, and we all agreed that in order for the helipad to be safer, there couldn't be any trees in the immediate vicinity," said Miller. "Trees attract birds, which can then get sucked into the engine. It can be very dangerous for helicopters as they're landing and taking off."

While Miller was evaluating the helipad, he also took the opportunity to tour the new emergency department. One new feature that particularly resonated with him was the decon room.

“It’s rare to see a decon room like that with access from both the outside and inside of the ED,” said Miller. “It also has four showers to accommodate an entire EMS crew who need to undergo decon. I asked about the drainage system and where the hazard waste goes from that room. I was really impressed to learn that there’s a separate collection unit directly beneath the decon room, which a hazmat company collects and removes for proper disposal.”

Like many other EMS professionals in the region, Miller is equally excited to see the new SSM Health SLU Hospital when it officially opens in September. Much like Missouri has set the bar for TCD systems nationwide, he sees this new hospital as helping to set the bar for new hospital design and construction in Missouri and beyond. ❖



INTERVIEW

Kelly Baumer



Q&A with Vice President of Clinical Services at SSM Health Saint Louis University Hospital, Kelly Baumer.

We recently sat down with Kelly Baumer, vice president of clinical services at SSM Health Saint Louis University (SLU) Hospital, to discuss the construction of the new hospital and the anticipation surrounding the upcoming opening. She has been integral to the planning and design process from day one, working to incorporate the feedback from more than 400 end-users. We appreciate Baumer sharing these details about the construction process as well as the value that this new hospital will bring to the greater St. Louis community and region.

As vice president of clinical services at SSM Health SLU Hospital, Baumer has overseen tremendous growth through a commitment to quality and patient care. She has been part of SSM Health SLU Hospital since 1990, starting her career as a physical therapist before becoming chief strategy officer in 2008. Baumer also served as a senior administrator, administrator of ancillary services, director of the TenetCare outpatient facility, and an inpatient supervisor. In 2015, she was promoted to her current role as vice president of clinical services, where she oversees various operational departments including perioperative services, oncology, and transplant services.

Baumer is credited with several achievements during her time at the hospital. She led the development of the MidAmerica Stroke Network, a hub and spoke system designed to provide advanced stroke care in the southern Missouri and southern Illinois regions. And of course, her greatest achievement to date is the instrumental role she's played in helping to bring the vision of the Grand New SSM Health SLU Hospital to life.

Baumer earned a bachelor's degree in physical therapy from Maryville University in St. Louis and a Master of Business Administration degree in health care management from Western Governors University. She is actively involved in various health care and

community groups, including the American College of Healthcare Executives, American Physical Therapy Association, and the National Kidney Foundation. Baumer currently serves as chair of the St. Louis YWCA board.

Q Why did SSM Health decide to build a new hospital?

A First, we knew we needed an entirely new structure versus adding on to the original facility. Fortunately, we were able to make that happen adjacent to our current campus. We also knew we wanted to design and build a facility that would echo the SSM Health Mission and Values. We're proud to say that this new hospital will be able to meet the contemporary needs of our patients, their families and the delivery of 21st-century medicine.

Our patients have some of the most complex illnesses within the Midwest. Helping bring new technology to their bedsides was a core focus from the beginning. We also wanted to design a space that brings the care and services conveniently to patients. Finally, our physicians and staff are well-known for offering exceptional, compassionate care. And now, we've designed and built a contemporary platform that allows them to deliver advanced medicine through efficient and intuitive organization of services and technological enhancements.

Q What were your main priorities/goals with the design of this new hospital?

A When we first set out to design and plan for the new hospital, we outlined five key guiding principles, which we referred to throughout the process:

1) Compassion

- Organize care around our patients' needs.
- Integrate each patient's family into every aspect of the care delivery experience.
- Design with thought toward patient vulnerabilities, including size, age, strength, disability, and cognitive capacity.
- Provide spiritual, meditative, and restorative spaces.

2) Respect

- Honor the preferences of those from diverse backgrounds.
- Respect the privacy and dignity of the patient and their family.

- Eliminate needless waits; emphasize value-added processes.
- Promote the interaction of patients and families with caregivers.

3) Excellence

- Inspire patient confidence that they are receiving world-class health care with world-class people, facilities, and technology.
- Provide the safest possible environment that minimizes the possibility of error.
- Provide the safest possible environment for our staff.
- Utilize evidence-based principles to support exceptional outcomes while minimizing waste and duplication.
- Leverage technology to enhance care delivery, information sharing, and the overall patient experience.
- Create an effective educational environment that fosters academic excellence, collaboration, and the development of future health care providers.

4) Stewardship

- Provide flexibility and adaptability; allow for effective adjustments to changes in the future health care delivery platform.
- Maximize the efficiency and effectiveness of care delivery.
- 'Preserve the earth' by employing sustainable ("green") design.
- Maximize value and effectively allocate capital without compromising the project's guiding principles.

5) Community

- Serve as a vital local community resource while at the same time reflecting the national and regional reputation of the medical center.

Q Take us through the planning, design and construction process from day one.

A The journey officially began on September 1, 2015 when SSM Health announced that it was building a brand-new hospital. From there, we started working with the planning architects for three to four months to understand general size and overall department needs. During the early stages, I was also able to visit three

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different academic medical centers, which had recently undergone extensive renovations or rebuilds. That gave me the opportunity to learn best practices and what worked best for them, as well as those things that didn't work, which I was then able to bring back to our design team. The more information you can get from the people who have already been through this is invaluable.

Then, in January 2016, we began with a conceptual design, deciding where to locate various services and which departments should be close to each other (preventing patients from having travel all over the campus to get from one service to the next). For the developmental design phase, we consulted with more than 400 frontline users - including physicians, nurses, pharmacists, lab, janitorial services - to help design what their respective spaces would look like, making changes along the way as needed. There were times when we had 40 meetings per week, but that's what it took to get the input.

We wanted to hear from the people who work closest to our patients every day. So, we also reached out to our EMS partners to discuss issues with the current emergency department (ED) and compile a type of 'wish list' of what we could do to make the new ED more efficient and EMS-friendly. We received incredible feedback about the challenges with the ramps and helipad. For example, it was really eye-opening to hear the pilots say that they would rather land on the ground. With the new hospital, the helipad is now located on the ground, adjacent to lots of open green space.

We also created a PFAC group - Patient and Family Advisory Council - consisting of patients and family members who've received care at SSM Health

SLU Hospital to learn more about their personal experiences and perspectives. The group met with us quarterly, providing constructive input throughout the design process to help us identify areas where we could make changes to improve the overall patient experience. We're planning to continue meeting with his group to get their input even after the hospital opens, so we can make any adjustments or improvements as needed.

Q What did you find to be the most valuable when it came to the planning process?

A Making sure we had the right people involved in the process. In our case, we had more than 400 people, whom we considered end-users. By having these people involved, it allowed us to take a critical look at what we need to improve on. It pushed you to stop and carefully examine every facet of our operation. More importantly, we've been able to take all of the feedback we received and put that into a brand-new building with the goal of providing an exceptional experience for everyone - the providers, staff, patients, families and EMS. We want people to feel like we've listened to them. We're bringing services to patients. We're coming to them.

In addition to having the advisory committees, the modeling process was really crucial to getting everyone comfortable with the overall plans. Before we did this modeling, it made people really nervous to say, 'Are we building the PACUs and pre- and post-op areas correctly?' It took a lot of work by our team, and it really does take engagement, not

only by our leaders, but by our frontline staff who are doing the work every day. After all, they are the ones who know all the current challenges that they face, and they're able to bring a lot of things to life that sometimes those at the leadership level are not necessarily thinking about.

We all took a lot of time to go through and model the plans. Once we saw the models working



Kelly Baumer and Steven Scott, president of SSM Health SLU Hospital - 2019

through, it really made all the difference in our feeling comfortable with the decisions we were making moving forward. We were on a very tight timeline with this project. Timing wise, it was helpful because we could continue moving into the schematic-design phase, because we did not have a lot of time to wait two months to understand this. Putting these models together and letting everyone see how they flowed, we got to a point where we were comfortable with how we were moving forward.



Kelly Baumer and news crew

Q What were some of the greatest challenges?

A I honestly wasn't surprised by much during the process. I knew what a lot of our challenges were at the onset, which were further confirmed by the feedback we received from the various end-users we consulted with during the process. I think just trying to reach every end-user and field their input was a tall order. Inevitably, you realize you may have missed consulting with some people, which is tough. You do the best you can. In the end though, I'm proud of the strong representation we had across all of the end-user groups.

Q What has the reaction been from hospital staff as the opening of the new hospital draws closer?

A Everyone is getting really excited. Each department is spending time creating a playbook outlining how they'll function in the new space. The goal for each department is to improve efficiency, make it easier for staff to do their work, and make the entire space an exceptional experience for patients and caregivers.

Our staff is also excited about working in an environment with much more natural light, which is a boost especially when you're working long shifts. For example, in our current space, you could enter the building before the sun comes up and not leave until after the sun has gone down, never seeing any natural

light during your shift. The natural light and green space in the new hospital will change that experience for staff, while promoting healing for patients.

Q What are the plans for managing COVID-19 at the new hospital?

A To prepare for working in the new hospital, we've been doing some of our training virtually. We're also breaking people into smaller groups with everyone wearing masks. We'll continue to make any necessary changes as the social distancing guidelines evolve closer to opening. For example, when it comes to visitors, we'll allow one support person, per day. Guests may visit between the hours of 10 am and 6 pm only and must adhere to all SSM Health policies including: wearing approved face coverings, screening upon entry, proper hand hygiene and social distancing. Our number one priority is the safety and well-being of our staff, patients, and visitors.

Q Any final thoughts?

A We're really excited to showcase our Grand New SLU Hospital to the community soon. Thank you to everyone for your input, time, patience, and support throughout these past few years. We can't wait for you to be able to experience this beautiful new space firsthand when we open our doors on September 1. ❖

Navigating COVID-19 Safely as a First Responder: The Latest Recommendations from the CDC.

Emergency medical services (EMS) play a vital role in responding to requests for assistance, triaging patients, and providing emergency medical treatment and transport for ill persons. However, unlike patient care in the controlled environment of a health care facility, care and transport by EMS present unique challenges. With the recent COVID-19 outbreak, those challenges are even more apparent.

When preparing for and responding to patients with confirmed or potential diagnoses of COVID-19, close coordination, effective communications and proper precautions are important for all first responders. The overall goal is to control the spread of this virus and to keep everyone safe.

According to the Centers for Disease Control, here are the two key updates to the EMS guidance to better address those COVID-19 challenges:

1) PPE recommendations:

- A. Face masks are an acceptable alternative until the supply chain is restored. Respirators should be prioritized for procedures that are likely to generate respiratory aerosols, which would pose the highest exposure risk to HCP.
- B. Eye protection, gown, and gloves continue to be recommended. If there are shortages of gowns, they should be prioritized for aerosol-generating procedures, care activities where splashes and sprays are anticipated, and high-contact patient care activities that provide opportunities for transfer of pathogens to the hands and clothing of HCP.
- C. When the supply chain is restored, fit-tested EMS clinicians should return to use of respirators for patients with known or suspected COVID-19.

2) Guidance about recommended EPA-registered disinfectants to include reference to a list now posted on the EPA website. ❖





Recommendations for EMS Clinicians and Medical First Responders

EMS practices should be based on the most up-to-date COVID-19 clinical recommendations and information from appropriate public health authorities and EMS medical direction. For reference, the CDC has made the following recommendations with regards to each area outlined below:

1) Patient assessment

- A. Exercise appropriate precautions when responding to any patient with signs or symptoms of a respiratory infection.
- B. Initial assessment should begin from a distance of at least six feet from the patient, if possible.
- C. Patient contact should be minimized to the extent possible until a face mask is on the patient.

2) Personal Protective Equipment

- A. N-95 or higher-level respirator or face mask
- B. Eye protection such as a face shield
- C. Disposable exam gloves

3) Precautions for aerosol-generating procedures

- A. Exercise caution if an aerosol-generating procedure – such as bag valve mask (BVM) ventilation, endotracheal intubation, continuous positive airway pressure (CPAP), bi-phasic positive airway pressure (biPAP), or cardiopulmonary resuscitation (CPR) – is necessary.

EMERGENCY PERSPECTIVES

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4) EMS transport of a PUI or COVID-19 positive patient

- A. Notify receiving health care facility that patient has an exposure history and signs/symptoms of COVID-19 so that appropriate infection control precautions are taken prior to patient arrival.
- B. Keep patient separated from other people as much as possible.
- C. Isolate the ambulance driver from the patient compartment and keep pass-through doors and windows tightly shut.

5) Patient care documentation

- A. Documentation of patient care should be done after EMS clinicians have completed transport, removed PPE, and performed hand hygiene.
- B. Any written documentation should match the verbal communication given to the ED providers at the time patient care was transferred.
- C. Documentation should include a listing of EMS clinicians and public safety providers involved in the response and level of contact with the patient.

6) Cleaning EMS transport vehicle after transporting PUI or COVID-19 positive patient

- A. After transporting patient, leave the rear doors of the transport vehicle open to allow for sufficient air changes to remove potentially infectious particles.
- B. When cleaning vehicle, wear disposable gown and gloves. A face shield or face mask and goggles should also be worn if splashes or sprays during cleaning are anticipated.

7) Follow-up, reporting measures after caring for PUI or COVID-19 positive patient

- A. Notify state or local public health authorities about patient so appropriate follow-up monitoring can occur.
- B. Develop policies for assessing exposure risk and management of EMS personnel potentially exposed to COVID-19 in coordination with state or local public health authorities.
- C. Develop sick-leave policies for EMS personnel that are non-punitive, flexible, and consistent with public health guidance.
- D. EMS personnel who may have been exposed should notify their chain of command to ensure appropriate follow-up. ❖