Spring 2010

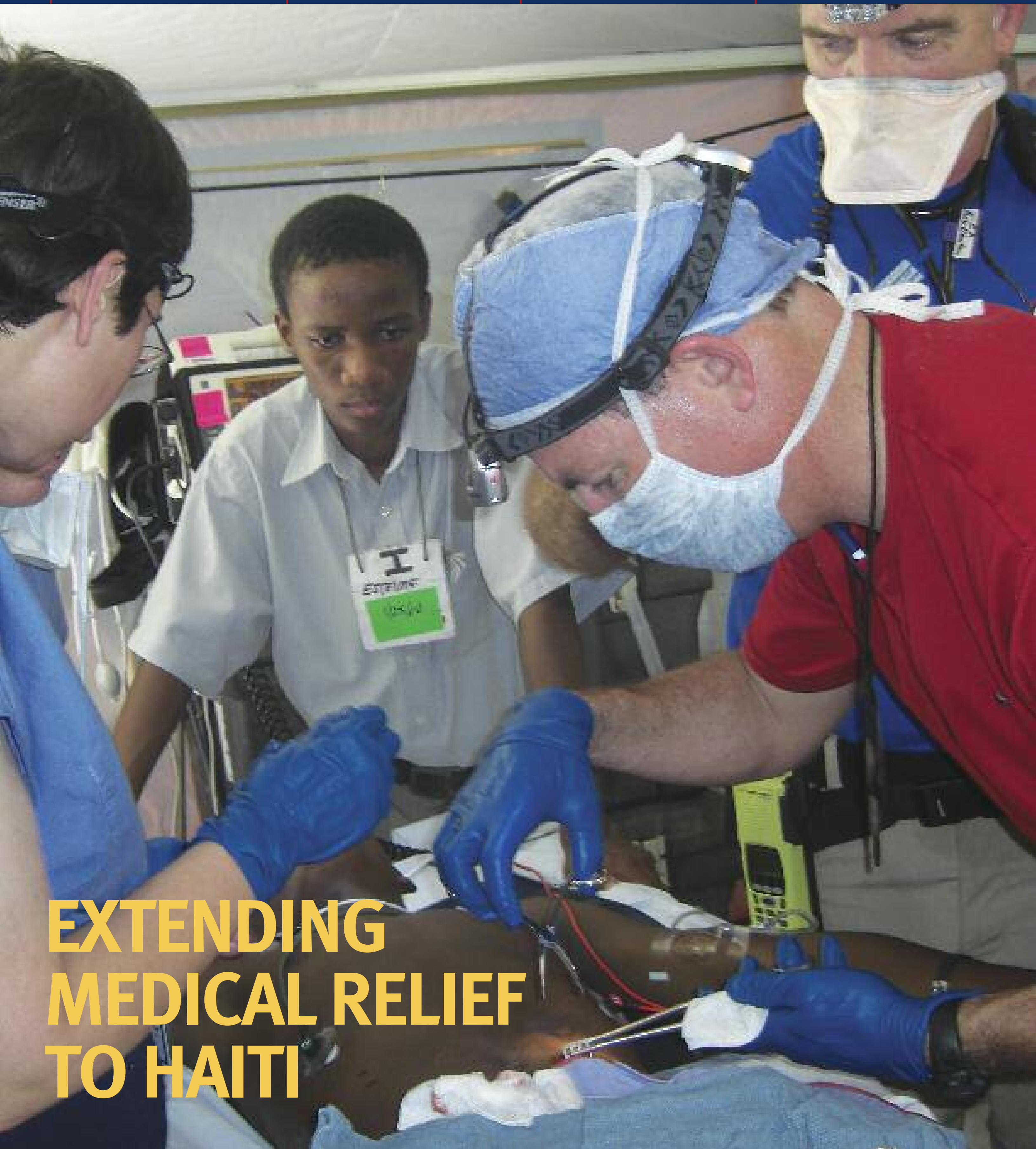
EMERGENCY PERSPECTIVES

Collaborative Emergent Care Saves Heart Patient

Our Commitment to National Standard for Level 1 Trauma

Redefining Care for Victims of Sexual Assault

SLU Hospital CEO Receives Patriot Award



EXTENDING MEDICAL RELIEF TO HAITI

My Deployment to Haiti: An ED Nurse's Experience

by Helen Sandkuhl, R.N. M.S.N. C.E.N. F.A.E.N.
Director of Nursing, Emergency Services
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Photo: hhs.gov

On Tuesday, January 12, 2010, at 4:53 p.m., a 7.0 magnitude earthquake struck Haiti outside the capital of Port-au-Prince. This was the country's most severe earthquake in 200 years with a death toll that is estimated to reach 200,000. Widespread destruction resulted from the quake and the capital city was devastated.

Haiti, which is about the size of Maryland, is a nation in the West Indies that occupies the western one-third of the island Hispaniola. By most economic measures, Haiti is the poorest country in the Americas and the least developed. Nearly 80 percent of the population is estimated to be living in poverty, and most Haitians live on two dollars per day or less.

Unfortunately, 90 percent of Haitian children suffer from water-borne diseases and intestinal parasites. Even before the earthquake, according to the World Health Organization (WHO), nearly one half of the causes of death were from HIV / AIDS, respiratory infections, meningitis and diarrheal diseases (including cholera and typhoid). Nearly five percent of Haiti's adult population is infected with HIV. Haiti's healthcare system was already broken before the tragedy.

Haiti has few roads in good condition. Even secondary roads and bridges are nearly impassable and difficult to travel. Healthcare services were already limited, and rescue and relief efforts are hindered further due to the increased lack of infrastructure.

Despite these issues, Haiti's major strength is its people. It was the first independent nation in Latin America and the first black-led republic in the world. The sincerity and strong will of its people are seen in their willingness to fight to survive and help each other. This was displayed not only in the adults, but also in the children. For example, a four-year-old girl had her right foot amputated and endured the hardship without any family. During recovery, she slept on the floor of our treatment tent with an eight-year-old girl with a lower leg external fixator in place. The eight-year-old gave love and comfort to a little girl she didn't even know despite dealing with her own injuries.

On January 25, 2010, I was deployed to Port-au-Prince, Haiti, and assigned to Haitian Group for the Study of Kaposi's Sarcoma and Opportunistic Infections (GHESKIO) Tent Hospital there. I am a member of Missouri One Disaster Medical

Photo: hhs.gov

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Assistance Team (MO-1 DMAT). DMATs operate within the National Disaster Medical System (NDMS) and were created in 1983 to address the need for a coordinated response from the nation's healthcare system during disasters that overwhelmed an area's healthcare infrastructure. There are approximately 50 teams in the U.S. comprised of physicians, nurse practitioners, physician assistants, registered nurses, medics, respiratory therapists, pharmacists, mental health workers, communication specialists and logistics experts. We were making history since this was the first time for NDMS to send teams internationally.

MO-1 DMAT's 35-member team left Lambert-St. Louis International Airport early Saturday morning, January 23. We arrived in Atlanta, Georgia as our staging area. This would be the last area of comfort that we would experience for the next two weeks. During our brief stay in Atlanta, we completed fit testing, and received the necessary vaccines and medications to prevent malaria. We left for Haiti at 2 a.m. Monday morning on a private jet. No one knew what to expect.

We arrived at the Port-au-Prince airport to a bright, sunny day with extreme humidity. Troops and supplies were all over the tarmac. We stayed at the airport for several hours waiting for transportation. Once our rides arrived, we loaded our luggage and crammed ourselves into an older model, non-air conditioned bus. Our security, provided by the 82nd Airborne, warned us to be prepared to see casualties along the road and that some smells may be intense. Many sights were difficult to handle emotionally. We were very blessed to have Chaplain Jim with us from Iowa-1 DMAT. He was truly our savior. He helped us see the best in every situation throughout the next two weeks and even helped with patient care.

Once we arrived at GHESKIO, we were greeted by the International Medical Surgical Response Team (IMSuRT) East staff. Our tent hospital was the most sophisticated hospital in operation on the island. It consisted of an operating suite, six to eight ICU beds, a major tent,
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Photo: hhs.gov

This was Missouri One Disaster Medical Assistance Team's first international deployment. This group treated many gunshot wounds with limited equipment.

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a minor tent, a procedure tent, pediatric treatment area, isolation for several TB patients and a very active triage area and strike team.

Our living accommodations consisted of sleeping outside on a cot with a mosquito net. However, thanks to our logistics staff, we had electricity and fans in the patient treatment areas. Aftershocks were fairly frequent in the first few days after our arrival. The male staff outnumbered the female staff. The bathroom had a sink, which also was used as a urinal. The female staff had a non-flushing toilet that could not withstand any toilet paper in the system without clogging and overflowing. We soon came to the conclusion that a non-flushing toilet was better than no toilet at all.

Soon after arriving we received three young males that were victims of gunshot wounds. These were the first of many penetrating wounds that we would treat over the next few weeks. This was an unofficial orientation for our team to observe the strike team and surgeons in action. One patient went to the OR for an exploratory laparotomy; the second patient decompensated and an emergency thoracotomy/laparotomy was performed in the ICU. Amazingly, all three of the patients survived.

Triage in an austere environment is difficult at best for an experienced emergency nurse. Most decisions were made based on which patient was most likely to survive. Many of the victims were children. One patient in particular, who everyone in our camp thought was a true miracle, was little Jefferson. Jefferson, a twin, was five days old when he was admitted to our ICU for neonatal sepsis/tetanus. His sister was born first; her cord was cut with a razor at home and the razor was laid down while awaiting Jefferson's birth. Jefferson's cord was cut with the contaminated razor, which led to an infected umbilical cord. Upon admission he was lethargic, hypothermic and had a low O_2 saturation. He was placed in a box for warmth; placed on O_2 via cannula; and had two peripheral IV lines placed. During the next few days, Jefferson's condition went through peaks and valleys, good shifts and bad shifts, and periods of apnea before finally requiring ventilatory assistance to

Photo: hhs.gov

Baby Jefferson and his twin were cared for by many staff members. While receiving continuous medical treatment, staff also worked to keep the twins, and other patients, hydrated due to the extreme heat and humidity.

survive. Since we did not have access to a neonatal ventilator on the island, we continued to bag Jefferson until we were able to locate his parents.

I bagged Jefferson for one-and-a-half hours until the night shift nurse arrived on duty. We were still unable to locate his parents. One of the night shift physicians continued to ventilate as my shift ended. Later that night, I was told that Jefferson had died, and they had left him with Chaplain Jim to document his death. Jefferson began breathing again without any assistance. I awoke the next morning to find him alive in a night shift nurse's arms.

Jefferson's parents arrived later that morning to visit their son. After their visit, they asked the staff to find me. I was still working in the ICU and had just given my report, before going outside to greet the family. They handed me a rosary and their baby. They entrusted their child to me while they left to check on their home. This was one of the most profound memories in my 36-year career as an ED nurse. When I returned to the States, I hung the rosary on the wall above my desk. Every morning when I come to work, I touch the rosary and say a prayer for Jefferson and his family. I will never forget them and baby Jefferson's recovery.

Photo: hhs.gov

This is an example of the creativity the staff used to help the patients. Austin Worcester, EMTP from the Wentzville Fire department, is seen treating a premature baby in a makeshift incubator. This incubator was made from a cardboard box with aluminum emergency blankets and meal heaters placed inside.

Photo: hhs.gov

This patient suffered from phantom pain in her amputated leg. Rev. Jim Coyle of Cedar Rapids, IA, the team mental health specialist, comforted her so she could overcome her anxiety and rest.

By the nature of the disaster, the most severe injuries resulted from musculoskeletal trauma. Orthopedic specialists and surgical teams were rapidly deployed to provide life and limb saving care. From January 19 to February 1, they applied 20 external fixators (mostly for femur fractures), and performed 12 amputations and multiple revisions of amputations that occurred before their arrival. Most of the minor procedures were closed reductions and castings of tibial and ankle fractures.

Besides practicing in an austere environment, one of the most challenging parts of patient care was language and communication. Most of the population speak French or French Creole. Each day, young men and women came from the nearby tent city to translate for us. Our safety and security officer developed a program to hire both translators and litter bearers to assist in the operation. This process benefitted not only the patients and staff, but also provided temporary employment to the 20 to 30 young people who arrived daily to our compound. Our staff became very creative. Some of the procedures developed were

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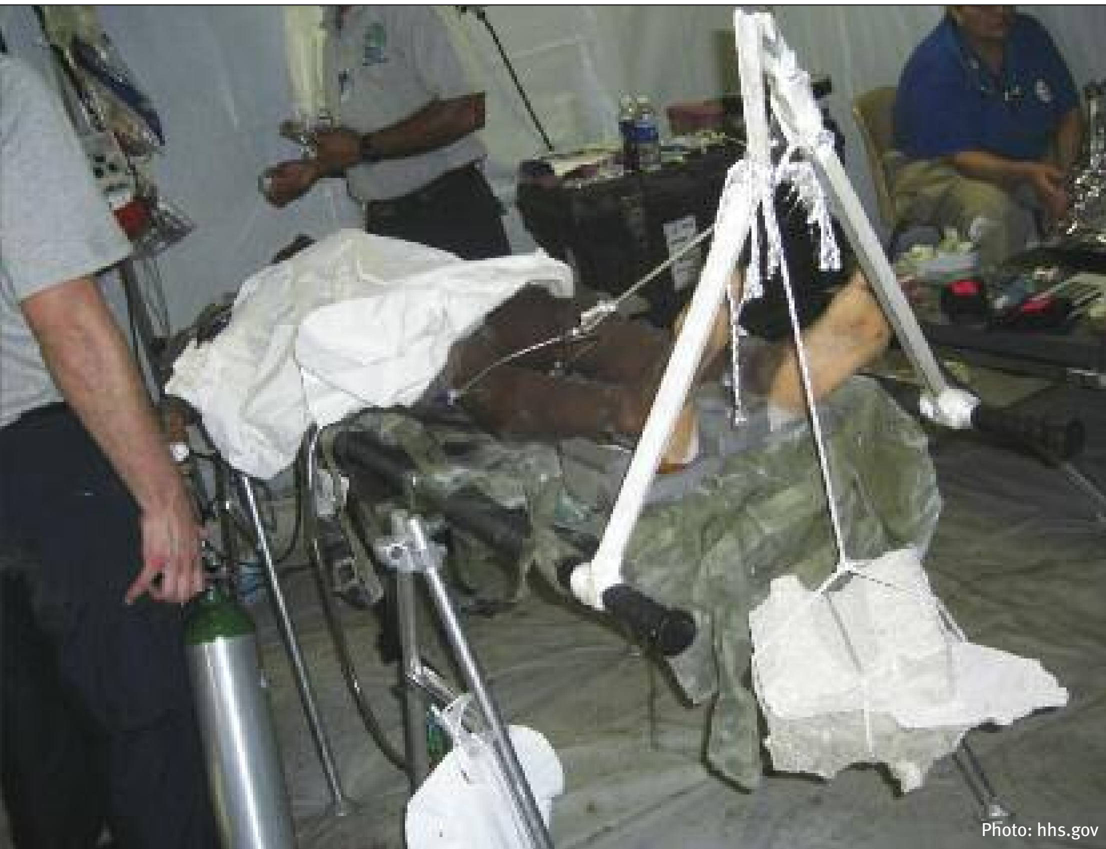

Creativity was necessary at all levels of care as seen in this example where the weight for the traction was made from the cement bricks that were broken during the earthquake.

quite novel: boxes lined with foil and used as incubators; foil blankets used as "incubator caves" for infants requiring intensive care and multiple encounters; and boxes cut and designed as wedges to elevate extremities. Meals Ready to Eat (MRE) boxes were multi-purpose and readily available. They were packaged in medium-sized boxes for transport. Once emptied, we collected and stored the boxes under the ICU documentation desk. We used them as bedside trash cans in the unit and also as a barrier for a tetanus patient.

An 18-year-old male was carried into ICU with a severely infected left foot injury. The crush injury occurred two weeks prior to his arrival at GHESKIO Field Hospital. He was anxious and having difficulty breathing. As I began IV catheterization, he sat

From the U.S. to Haiti...
SLU Hospital Teams Answer the Call

"I am absolutely numb with inertia. All you can do is pray." These feelings were expressed by a physician, who witnessed firsthand the aftermath of the earthquake that nearly destroyed Haiti. The utter devastation has undoubtedly impacted millions around the world, including individuals, charities, organizations and corporations, inspiring them to show their compassion and support in various ways — by donating, volunteering or simply praying.

Saint Louis University Hospital staff immediately responded to many employees asking about ways to help the people of Haiti. The following are some of the relief efforts supported by SLU Hospital and Tenet Health.

SLU Hospital

The U.S. Department of Health and Human Services readily dispatches its National Medical Disaster Services volunteers to provide aide to those impacted by major earthquakes, hurricanes and other natural disasters. The Missouri One Disaster Medical Assistance Team (MO-1 DMAT) has more than 100 emergency responder volunteers who donate their time to support these efforts. SLU Hospital is proud to have four staff members represented on the region's stage one responder team, who recently traveled to Haiti for several days to assist the medical teams.

In honor of Valentine's Day, the Employee Engagement Committee of SLU Hospital hosted Hearts for Haiti, where employees donated a monetary Valentine to the people of Haiti. All money collected was delivered to the American Red Cross.

up; looked into my eyes with terror; arched his back and began to seize. I inserted two large bore IVs in his upper arms while one of our physicians obtained an airway. Once stabilized, we maintained his generalized muscle spasms with multiple IV medications. Before my shift was over, he was intubated and placed on a ventilator. He received IV drips of morphine, valium, vecuronium and magnesium sulfate. Plans were in place to amputate his foot later that night. We infiltrated the wound with Tetanus Immune Globulin (TIG), but needed to delay the amputation several hours after administration of the antitoxin due to the risk of releasing tetanospasmin into the bloodstream.

The next morning I arrived in ICU at 7 a.m. This young man had survived the night. Someone had taken one of the MRE boxes and created a head shield for him. We were unable to provide a non-stimulating environment in the ICU due to high activity levels in the unit. This box was placed over the patient's head to provide a way to decrease stimulation; reduce anxiety; help produce better sedation in coordination with the IV medications; and ultimately relax his muscles.

Tetanus is an illness characterized by an acute onset of hypertonia, painful muscular contractions and generalized muscle spasms. The muscles most commonly involved are those of the jaw and neck. Clostridium tetani is an anaerobic gram-positive bacillus that causes tetanus. These spores can be found in soil, house dust, animal intestines and human feces. Under anaerobic conditions, these spores germinate and produce tetanospasmin. Neurons are affected and become incapable of neurotransmitter release; ultimately resulting in generalized contractions causing tetanic spasm. Patients with generalized tetanus present with trismus (i.e., lockjaw) in 75 percent of cases. This patient was also placed on Penicillin A and metronidazole. By day three, he was able to be transferred to the U.S.N.S. Comfort for a higher level of care.

There are hundreds of stories that each of us has regarding this mission. I was fortunate to be deployed with two of my staff members who work with me in the Emergency Department at Saint Louis University Hospital. Phillis Kessler and Dwight Jones, members of the SLU Hospital DMAT team, also worked long hours to support the patients. They were my rock and inspiration, and I was very proud to share this experience with them. If I had to describe this mission in one sentence: it was emergency nursing at its best! EP

Tenet Health

Employees — Numerous Tenet Health employees donated to the American Red Cross by making a one-time payroll deduction.

Patients — Tenet hospitals have treated a total of 33 victims of the earthquake at St. Mary's Medical Center in West Palm Beach, Florida, West Boca Medical Center in Boca Raton, Florida, Delray Medical Center in Delray Beach, Florida and St. Christopher's Hospital for Children in Philadelphia.

Tenet Health is working closely with state agencies to monitor medical evacuations from Haiti and establish a methodology for reimbursement.

Supply Requests — Relief agencies involved in providing aid to the people of Haiti continue to request monetary donations rather than supplies. In support of these requests, Tenet Health has communicated this to its hospitals' CEOs.

Volunteers — Tenet Health continues to encourage employees interested in assisting with the possible influx of patients to its hospitals to register with its Disaster Response Team Volunteer database. To date, more than 2,000 Tenet employees have registered.

Tenet Disaster Relief Fund

The Internal Revenue Service declared the earthquake in Haiti as a qualified disaster for federal tax purposes, enabling Tenet Health to activate its Disaster Relief Fund to provide financial assistance to Tenet employees impacted by widespread, "federally qualified" natural disasters.

With the IRS' declaration, The Fund is permitted to make qualified disaster relief payments to Tenet Health employees and their families in need of assistance. These relief dollars can be used to reimburse costs associated with emergency housing needs, medical costs and other disaster-related expenses.

A Leader's Perspective: The Challenges of International Medical Relief

By Mark Thorp, Team Commander, MO-1 DMAT

When the earthquake struck Haiti, our team was among those in the U.S. on call for any national disaster as part of the U.S. Department of Health and Human Services' National Disaster Medical System. These teams were called upon and immediately began preparing to deploy to Haiti. The Missouri One (MO-1) Disaster Medical Assistance Team (DMAT) had 45 members available; however, we had no idea of the challenges we would face during the deployment process. This was the first international deployment for the U.S. DMATs which meant new requirements. Just to be considered for the mission, DMAT members needed passports (some members drove to Chicago to expedite the passport process), additional immunizations, preventive medications, and medical clearance. Of the 45 MO-1 members available to deploy, 13 members could not due to medical conditions, lack of passports or inability to obtain the required immunizations.

Photo: hhs.gov

The tent hospital at GHESKIO is shown here. The surgical tent is on the left under the canopy and the ICU tent is on the right.

The first DMATs began arriving in Haiti January 14 and began seeing patients January 17. After fulfilling the travel requirements, 32 MO-1 DMAT members and two members of the Iowa-1 DMAT arrived in Haiti on January 25. As the team commander, I arrived a day earlier to conduct advance preparations. While some of our DMAT counterparts were assigned to treat patients at the U.S. Embassy and at the Port-au-Prince airport, because of our team's advanced skill set, we were assigned to work with the International Medical Surgical Response Team (IMSuRT) treating patients at the GHESKIO Field Hospital in downtown Port-au-Prince.

Working in a foreign land presented a new set of challenges for our team. We had to contend with complex international politics. Obtaining supplies was a never-ending challenge due to the collapsed infrastructure. We had to secure permission from multiple groups before transferring patients to other facilities. We were there to

Mark Thorp, MO-1 DMAT team commander, holding Baby Jefferson who was diagnosed with neonatal tetanus.

assist the Haitian people, and we needed to learn and respect the customs and laws of Haiti.

As the hospital administrator for our temporary facility near GHESKIO, I supervised the safety and security of our team while still constantly evaluating the facility and medical supply needs. We hired 20 local medical students to act as translators, helping us overcome the language barrier. Working in an AIDS/Tuberculosis clinic created heightened concerns, especially with the overwhelming patient population and austere conditions. We had ongoing concerns about potential violence erupting among some Haitians desperate for food and supplies. We were fortunate to have the 82nd Airborne Division provide security for us, guarding our camp and escorting us throughout the area.

Despite such adverse conditions, our medical relief efforts made a significant impact. During our 10 days in Haiti, we treated 200 patients per day, assisted with an average of 10 surgeries on a daily basis, and delivered 30 babies. Between January 17 and February 22, medical teams from the National Disaster Medical System — with more than 1,100 members deployed to Haiti — saw more than 31,300 patients, performed 167 surgeries and delivered 45 babies. In addition to these medical teams, the U.S. Department of Health and Human Services also contributed critical medical supplies and equipment, such as medicines and mobile medical tents, to the relief effort. The Haitians were so grateful for our assistance and made the experience incredibly rewarding. We would do it again in a heartbeat. In fact, several team members have been invited back by a charitable group for a follow up volunteer mission in October. EP

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Sandkuhl Appointed to State Advisory Committee

Helen Sandkuhl

Missouri Governor, Jay Nixon, has appointed Helen J. Sandkuhl, of St. Louis, to the State Advisory Council on Emergency Medical Services. The Council makes recommendations to the Governor, the General Assembly, and the Missouri Department of Health and Senior Services on policies, plans, procedures, and proposed regulations regarding how to improve the statewide emergency medical services system.

Sandkuhl has served as director of nursing, emergency services at Saint Louis University Hospital since 2001. An emergency nurse for more than 35 years, she currently is president of the Missouri Emergency Nurses Association. The Governor has appointed her for a term ending January 5, 2012.

Preparing for an Earthquake in the Midwest

February 7, 1812 marked a dramatic day in Missouri history when the strongest earthquake was ever felt in North America. Missouri and the surrounding region — from St. Louis, Missouri to Memphis, Tennessee — are no strangers to the ever-present threat of earthquakes. In fact, area residents have felt more than 800 earthquakes since 1699 within the New Madrid seismic zone, while special machines have detected thousands of smaller ones. The most recent, significant earthquake in this area occurred on April 18, 2008, in southeastern Illinois, and measured 5.2 in magnitude on the Richter scale.

Rock formations in the central United States are older, colder and harder than those found in California. As a result, earthquake waves travel much farther in this region, potentially spreading damage across an eight-state region. The major fault line in the New Madrid seismic zone continues to raise concerns, prompting interest and discussions among experts, city officials, media and the general public.

On Friday, February 5, 2010 just days after the massive earthquake that struck Haiti, the Gateway Citizens Corps Coalition hosted the area's 16th annual Earthquakes: Mean Business at Saint Louis University. The free, all-day seminar attracted more than 275 people throughout the region interested in earthquakes, earthquake risk and mitigation, emergency management, business continuity, or citizen preparedness.

Attendees, including numerous first responders, participated in a series of morning presentations and workshops focused on strategies and tactics that can be used in both business and homes to become better prepared should an earthquake occur again in this region. Experts throughout the regional geoscience, engineering, and emergency management community, discussed earthquake hazards and risk in the central United States. The Citizen Corps staff, coordinated by the Department of Homeland Security, organized this year's earthquake seminar. The Corps provides valuable information on their website, www.gatewayccc.us.

In an effort to communicate the community efforts that are available in the event of an earthquake, Citizens Corps has established five initiatives. The initiatives include:

Community Emergency Response Team (CERT) programs educate people about disaster preparedness and train them in basic disaster response skills, such as fire safety, light search and rescue, and disaster medical operations. Using their training, CERT members can assist others in their neighborhood or workplace following an event and can take a more active role in preparing their community.

The Fire Corps promotes the use of citizen advocates to enhance the capacity of resource-constrained fire and rescue departments at all levels: volunteer, combination, and career. Citizen advocates can assist local fire departments in a range of activities including fire safety outreach, youth programs, and administrative support. Fire Corps provides resources to assist fire and rescue departments in creating opportunities for citizen advocates and promotes citizen participation.

The Neighborhood Watch Program (NWP) incorporates terrorism awareness education into its existing crime prevention mission, while also serving as a way to bring residents together to focus on emergency preparedness and emergency response training.

The Medical Reserve Corps (MRC) program strengthens communities by helping medical, public health and other volunteers offer their expertise throughout the year as well as during local emergencies and other times of community need. MRC volunteers work in coordination with existing local emergency response programs and supplement existing community public health initiatives, such as outreach and prevention, immunization programs, blood drives, case management, care planning, and other efforts.

Photo: Bill Burckhalter

CERT volunteers practice a head-to-toe assessment on a patient. CERT teams learn basic disaster response skills for situations when first responders may be delayed to a scene, such as the earthquake in Haiti.

Volunteers in Police Service (VIPS) works to enhance the capacity of state and local law enforcement to utilize volunteers. VIPS serves as a gateway to resources and information for and about law enforcement volunteer programs.

First responders can help ensure families and our communities are safe through:

- Educating the community: Focus on personal responsibility such as having a household preparedness plan and keeping disaster preparedness kits on hand
- Training: Taking classes in emergency preparedness and rescue procedures
- Volunteer service: Volunteer for activities that support first responders and disaster relief groups.

Although earthquakes cannot be predicted, scientists often present forecasts of earthquakes as the chance or probability of an earthquake occurring in a specific time interval. Experts believe it will be a long time — hundreds of years — before the New Madrid seismic zone experiences another major earthquake; however, people and businesses should prepare themselves accordingly so they will know what to do in the event of an earthquake. EP

Special Medical Care for All Generations...

Differences in Treating the 'Chronologically Gifted'

First responders may treat a variety of patients on any given day. SLU Hospital staff assists adolescents to adults and the elderly. These patient populations require different approaches, physically and emotionally, when receiving medical treatment. This article highlights the best practices for treating senior citizens in emergency situations.

Senior citizens — or anyone over the age of 65 — are the fastest growing sector in the United States. According to the U.S. Census Bureau, the senior citizen population appears to be headed to a 40 percent increase in the next five years. By 2050, this population will more than double in the U.S., from 39 million today to 89 million.

Given the expected growth of the senior citizen population, first responders can expect to treat more and more elderly patients. Caring for the elderly can be one of the most difficult and stressfulresponsibilities, especially in times of medical crisis.

"Oftentimes, our elderly population doesn't get the respect and compassion they deserve," says Abhilash Desai M.D., a SLU*Care* geriatric psychiatrist at Saint Louis University Hospital and director of the Center for Healthy Brain Aging at the SLU School of Medicine. "The terms 'elderly' and 'senior citizen' are somewhat isolating and even condescending. I prefer to think of them as 'chronologically gifted.' If we change our attitudes towards this population, we can improve their treatment."

When faced with a crisis situation, the elderly tend to experience greater anxiety and paranoia for a number of reasons. Some patients' comprehension may be less acute, making it more difficult to process treatment. Problems hearing and/or seeing also can make communicating more challenging. Pre-existing medical conditions pose greater challenges when trying to administer medical treatment.

"When working with the elderly during a medical emergency, it's important to approach them in a calm, respectful manner," says Dr. Desai, "First, be sure to address them by their last name. Take your time explaining the situation, so they can understand and feel more at ease. Let them know what to expect next."

For personal safety and the safety of their patients and crews, first

responders treating senior citizens should also be aware of certain signs that may pose a danger. Some patients may appear extremely disoriented or have extensive cognitive impairment from medications (or lack thereof), delirium, depression, hallucinations or dementia. These patients can become more easily agitated and aggressive if they feel they are being threatened. Dr. Desai recommends the following tips to help lessen this aggression and ensure everyone's safety during the course of emergency treatment:

- **Be respectful –** address them in a more formal manner (e.g. by their last name).
- **Stay calm –** reduce anxiety and paranoia.
- **Show patience —** give them time to respond as they have slowed thinking.
- **Avoid confrontation —** don't come across as threatening.
- **Be direct —** look at them so they can read lips if they lack verbal comprehension.
- **Speak slowly —** ask one question at a time and use simple language.
- **Optimize communication —** be aware of hearing aids and glasses which can make it harder to comprehend the situation.

"If a first responder encounters a truly despondent senior citizen in abject, disorganized living conditions, we strongly recommend referring the patient to an inpatient gero-psychiatric unit," says Dr. Desai. "Additionally, any signs of abuse and/or neglect should be reported to the Division of Aging."

For more information about treating the elderly or to make a referral to Saint Louis University Hospital's division of geriatric psychiatry, please call 314-977-4800. EP

Collaborative Emergent Care Saves Heart Patient

Emily Farkas, M.D., cardiothoracic surgeon at SLU Hospital, performs a bypass procedure.

“Joe was truly given a second chance at life,” says Flo Golden. “His story was remarkable, especially to the many kind individuals who helped to save him.”

When 65-year-old Joe Golden and his wife, Flo, left their home in El Paso, Tex. for the first major road trip in their new RV, they never imagined the unexpected twists and turns that this journey would take.

At 10 a.m. on Friday, June 26, 2009, only a few days into their trip, the Goldens stopped at a gas station in Mount Vernon, Ill. While standing at the gas pump next to the RV, Joe suddenly collapsed and was non-responsive — the result of a massive heart attack.

Flo quickly alerted one of the gas attendants to call 9-1-1, summoning both the police and paramedics to try to revive Joe. After performing CPR and external defibrillation, paramedics transported Joe to St. Mary’s Good Samaritan Hospital in Mount Vernon for further treatment. Flo followed the ambulance in a police car, leaving their RV and dog, Zoe, to be cared for by two kind, yet complete strangers. Her husband was her greatest concern.

“I knew Joe was in bad shape from the moment he collapsed,” recalls Flo. “Some time had passed before he received CPR. His non-responsiveness and pale appearance all but convinced me that he was already gone.”

When Joe arrived at St. Mary’s, his pupils were dilated and fixed and he was posturing — a strong indication of brain death. Recognizing the need for more advanced cardiac treatment, the medical team at St. Mary’s decided to airlift him to Saint Louis University Hospital, less than two hours after he first collapsed.

With advanced testing, the cardiac team at SLU Hospital determined that Joe had advanced high grade blockages in his arteries. He was immediately transferred to the catheterization lab, where an intra-aortic balloon pump was inserted in his femoral artery and aorta to further stabilize his condition. Despite these efforts, Joe remained in a comatose state.

Joe and Flo Golden

“After reviewing the tests, we knew Mr. Golden needed quadruple bypass surgery,” says Emily Farkas, M.D., a cardiothoracic surgeon at SLU Hospital. “However, considering the risks of worsening the potential brain damage he had sustained from a lack of oxygen, we were concerned about putting him through an operation as extensive as cardiac surgery. The choice between protecting the heart or the brain is an impossible one, but we made the decision to wait until he awoke from his coma and hoped that we could support his heart until the first opportunity when surgery could be performed safely.”

Dr. Farkas informed Flo and her son, Joey, about their plans to delay Joe’s surgery. They understood Dr. Farkas’ concerns, so they just hoped and prayed for a miracle.

“Dr. Farkas showed us so much compassion during those agonizing hours,” says Flo. “She poured her heart and soul into treating Joe and helping us adjust to the situation.”

Incredibly, Joe awoke from his coma on Sunday evening — less than two days since his heart attack. He sat straight up in bed and began asking questions, wanting to know where he was and what was going on. “We were absolutely amazed to see him so alert after being on the brink of certain death,” says Dr. Farkas. “You don’t see that happen very often in these circumstances. It was pretty miraculous.”

The next morning, Dr. Farkas and her cardiac team successfully performed quadruple bypass surgery. Joe responded well to the surgery and recovered in the intensive care unit for several days before being discharged to home healthcare on July 7, 2009, only 11 days after his heart attack.

“The staff at SLU Hospital was very comforting and supportive — from the emergency room and cardiac department to the doctors and nurses,” says Flo. “We know how lucky we are. Our journey was a miracle we’ll never forget.”

Today, Joe has resumed most of his normal activities, although he has experienced some mild memory loss as a result of the heart attack and lack of oxygen to his brain. Flo is just thankful Joe lived to tell his tale. The Goldens eventually got their beloved dog and RV back from those two perfect strangers in Mount Vernon.

“I will never forget the good people in Mount Vernon and St. Louis, who helped us during that fateful journey,” says Flo. “They were all angels sent to help save Joe.” EP

Raising the Bar… Our Commitment to National Standard for Level 1 Trauma Care

Paramedics arrive on the scene of a two-car motor vehicle accident. A driver is critically injured with a crushed leg, signs of shock, bleeding from the head and potential internal injuries. After evaluating the victim and safely removing him from the car, the victim is secured in the ambulance and a call is made to Saint Louis University Hospital that a trauma patient is on the way.

highest level of trauma care

The SLU Hospital trauma team awaits the arrival of the accident victim in the Emergency Department. The ambulance arrives and the trauma team springs to action, working with the paramedics to identify life threatening injuries. Emergency medical care is administered and further evaluations are conducted to determine the extent of the injuries. The patient is ushered into surgery to control internal bleeding and a long process of orthopaedic reconstructive surgery and recovery follows.

By holding Level 1 Trauma licenses in both the states of Missouri and Illinois, variations of this scenario play out everyday. When it comes to trauma, SLU Hospital operates like a well-oiled machine. SLU Hospital made a commitment to provide comprehensive trauma services to the St. Louis community and the bi-state region at-large and has held that commitment since the late eighties. The emergency services provided are critical to not only the St. Louis community, but also to the entire southeastern region of the state of Illinois.

First row left to right: Pam Golden, Jeffrey Bailey, M.D., Kevin Mahoney, M.D.; 2nd row: Jane Tenquist, M.D., Shannon Boles, A.P.N., Mary Beth Flynn, Kris Forneris, Mary Ann Moran, Daniel Naughton, M.D., Carl Freeman, M.D., Michelle Reitz, A.P.N.; Back row: Dan Baker, Charles Andrus, M.D., Lee Foster

In order to operate as a certified Level 1 Trauma Center, SLU Hospital has to continuously meet the requirements for Level 1 status as designated by both the states of Missouri and Illinois. Level 1 status requires SLU Hospital to be ready and have dedicated resources to care for trauma patients around-the-clock. In addition to the trauma commitment to Missouri and Illinois, SLU Hospital voluntarily applied for the American College of Surgeons Committee on Trauma to evaluate the hospital's trauma services. In late 2009, SLU Hospital became the first American College of Surgeons verified, dual-state certified Level 1 Trauma Center in the region.

"The American College of Surgeons truly sets the national standard for trauma care. This verification means that SLU Hospital has dedicated itself to maintaining the highest level of trauma care," says Pam Golden, A.P.R.N.-B.C., M.S.N., C.C.R.N., T.N.S., and Trauma Program Manager for Trauma Services at SLU Hospital.

The American College of Surgeons' verification recognizes SLU Hospital as a Level 1 Trauma Center that meets national trauma standards. Verification from the American College of Surgeons Committee on Trauma is not only an honor, but also an obligation to continuously uphold national trauma standards. As an American College of Surgeons verified Level 1 Trauma Center, SLU Hospital is furthering its commitment to providing the entire spectrum of care to address the needs of all injured patients, encompassing the pre-hospital phase all the way through to the rehabilitation process.

"As an American College of Surgeons verified Level 1 Trauma Center, we have made the commitment to educate healthcare providers in emergency care," says Helen Sandkuhl, R.N., M.S.N., C.E.N., F.A.E.N., and director of Emergency Nursing at SLU Hospital. "We provide emergency care education opportunities as an EMT training facility and we also have a robust trauma nurse specialist program."

SLU Hospital remains committed to providing comprehensive trauma services to both the states of Missouri and Illinois. EP

comprehensive trauma services

Redefining Care for Victims of Sexual Assault

Task Force Creates Hospital-Focused Sexual Assault Response Team (SART)

According to the Rape, Abuse and Incest National Network, someone in the U.S. is sexually assaulted every two minutes. One out of every six American women – 17.7 million – has been the victim of an attempted or actual rape. Sexual assault and rape offenders aren't usually strangers to their victims. In fact, 73 percent of sexual assault victims knew their attacker.

Sexual assault and rape affect victims, physically and psychologically, in unimaginable ways. According to the World Health Organization, these victims are:

- **Three times more likely to suffer from depression**
- **Six times more likely to suffer from post-traumatic stress disorder**
- **13 times more likely to abuse alcohol**
- **26 times more likely to abuse drugs**
- **Four times more likely to contemplate suicide**

Today, there are extensive resources and educational tools available, raising awareness about the underlying threat of sexual assault and rape. Despite having these resources, the incidence of sexual assault and rape is ever-present. In fact, sexual violence cases in St. Louis City and St. Louis County have increased in recent years.

"From our experience, this indicates that more and more victims are actually coming forward and reporting their cases to authorities. Silence is our worst enemy. If you have been a victim of sexual assault or rape, we encourage you to seek help," says Kathleen Hanrahan, director of the YWCA's St. Louis Regional Sexual Assault Center.

Hospital-Focused Sexual Assault Response Team (SART)

The YWCA's St. Louis Regional Sexual Assault Center is one such organization helping sexual assault victims in the area. The Center's mission is to provide support and advocacy to victims of assault and abuse within the St. Louis Metropolitan area, help coordinate services provided to victims, and serve as a resource on issues regarding awareness and prevention of sexual assault and abuse.

One of the key components of the Center's services is its hospital-focused Sexual Assault Response Team (SART), which provides crisis intervention services for more than 450 sexual violence victims each year. SART volunteers, with more than 40 hours of training in the area of sexual assault trauma, respond 24 hours a day, seven days a week to SART network emergency departments. When a sexual assault or rape victim presents at the hospital's Emergency Department, the triage nurse immediately contacts the SART answering service, which then contacts the on-call volunteer who responds to the hospital.

"Hospital crisis intervention for victims of sexual assault is strongly supported by academic research," says Hanrahan. "Trauma studies have clearly indicated that victims who receive early and appropriate crisis intervention and support are more likely to show significant recovery within the first few months post-trauma than those who do not receive intervention services."

Once on-site, SART volunteers provide much needed support, information and resources. Information and explanations are given for accessing resources, such as victim service organizations, housing, legal, financial, and supportive resources. The volunteers secure permission from sexual assault victims to allow the YWCA St. Louis Regional Sexual Assault Center professional staff to contact the victims for follow-up services and appropriate referrals. During follow-up calls, the staff assesses the victims' well-being and individual functioning needs. Therapy may be provided by the YWCA St. Louis Regional Sexual Assault Center clinical staff or by other collaborating organizations, based on the needs of the victim. All services at the St. Louis Regional Sexual Assault Center are grant-funded and provided at no cost to the victims.

The Task Force

SART volunteers, with more than 40 hours of training in the area of sexual assault trauma, respond 24 hours a day, seven days a week to SART network Emergency Departments.

In 2006, Jeanne Fogarty, a nurse manager in the Emergency Department at Saint Louis University Hospital, began chairing a regional hospital-focused sexual assault task force. The task force, which includes YWCA staff, hospital staff, police and other first responders, initially worked with area hospitals to create the proper protocols for treating sexual assault victims in EDs across the region. At the time, there was growing concern that these victims weren't receiving appropriate treatment and counseling when they arrived at the ED.

"As a SART member, I felt especially compelled to help coordinate the hospital-focused task force," says Jeanne. "The St. Louis area hospitals play such a crucial role in helping these victims with treatment and recovery from the get-go."

There are currently 17 hospitals throughout the region participating in the hospital-focused SART program. In 2009, SART provided services to 558 sexual violence victims in this region. Of those 558 cases, 88 percent are making progress toward accomplishing their established treatment goals.

"We are incredibly lucky to have the support of our hospital personnel, who place great emphasis on accountability and responsibility when it comes to treating sexual assault cases," says Kathleen. "People like Jeanne and Helen Sandkuhl at SLU Hospital remind all of us on the task force about the importance of delivering the best patient care. They make my job that much easier."

April is sexual assault awareness month. For more information about sexual violence and prevention, please call the YWCA St. Louis Regional Sexual Assault Center at (314) 726-6665. EP

Trauma Outreach... From the Bedside to the Classroom

Vickie Moran, Trauma Outreach Coordinator in Trauma Services at SLU Hospital discusses a recent trauma patient.

Trauma care has significantly evolved since the first trauma center opened in Chicago back in 1966. At the time, healthcare professionals quickly realized that when patients with traumatic injuries visited urban hospitals, their caregivers were not skilled to adequately treat such complex conditions. They soon determined that better trauma skills and advanced technologies translated to healthier patients and better outcomes. Today, trauma centers rely on experienced trauma outreach coordinators to oversee the execution of such advanced care and provide additional training for medical professionals.

"At Saint Louis University Hospital, we provide training programs and continuing education opportunities for medical staff and first responders, including EMTs, paramedics, physicians and nurses who work in Level One trauma centers," says Vicki Moran, Trauma Outreach Coordinator in Trauma Services at Saint Louis University Hospital. "We cover nearly every kind of trauma patients can experience — from major injuries such as car and motorcycle accidents to other traumas like a fall on the ice."

Moran hosts an annual trauma nurse specialist (TNS) course at SLU Hospital, which meets for one full day. Eight hours of clinical experience in either the pre-hospital, emergency or ICU of Level I Trauma is also included in the class. Guest speakers bring their expert knowledge in specific areas of interest. This course offering and others are provided by SLU Hospital as part of its community education initiatives. The TNS course is an Illinois requirement for Level One Trauma hospitals; the protocol is that one person per shift should have the TNS credential. Because of the requirement, the course is

popular especially with hospital personnel in Illinois. Since 2003, nearly 50 healthcare professionals have taken the course.

One of Moran's current TNS students is Carrie Chismarich. She is one of nearly 20 healthcare professionals in the TNS class. Chismarich has nine years of experience as a registered nurse and is currently working in trauma ICU at SLU Hospital. "In my position, I often have to teach new employees the hospital's protocols for various traumas. The class has been a very good overview; it has helped me better explain various procedures to them. The class has given me more in-depth knowledge," explains Chismarich.

Guest speakers are a good source of information for the TNS students. "Our physicians lecture about a specific topic for the day; as students, we see the doctor's side of a particular injury. This is helpful when we listen in to the doctors while they are rounding on the floor. In the classroom they give different insights and answer questions they probably wouldn't have time to answer," says Chismarich.

"If we are better prepared as providers, by keeping our skills sharp, we can save one life. And that one life affects others, which then creates a ripple effect."

Recent topics covered in the class include pediatric trauma and trauma during pregnancy, as well as treatment options and signs of shock. "When we were covering shock, it reminded me of a patient I cared for recently — it gave me a deeper understanding of the body's response and the various states of shock," says Chismarich. "This is a good course, and totally worth the time based on the in-depth information provided. It's not easy and not everyone passes, but at least you have the opportunity to learn some valuable things."

Moran knows how valuable the TNS course is for those in the trauma field: "If we are better prepared as providers, by keeping our skills sharp, we can save one life. And that one life affects others, which then creates a ripple effect."

Moran also plans to host general classes for the public in the near future. "My goal is to expand on bicycle safety, car seat fittings, pedestrian and firearm safety and general first aid," she says. And of course, you may see Moran in the ICU, keeping her bedside skills current. "Time on the floors with patients makes me a better nurse and a better teacher, in addition to being a requirement of my licensure," she says. EP

Continuing Education Courses

SLU Hospital's first responding emergency medical partners are invited and encouraged to attend any of the classes listed. For more information, email pam.golden@tenethealth.com or call 314-577-8773.

Trauma Nursing Core Course (TNCC) Provider

May 12 and 13, 2010, 7 a.m. to 5:30 p.m.
(Learning Resource Center)
This two-day course is designed to provide the RN with cognitive knowledge and psychomotor skills. The Trauma Nurse Process is used to standardize the approach to trauma patient care and is reflected in the chapters and psychomotor skill stations. This course will enhance the nurse's ability to rapidly assess and evaluate the patient's response to the trauma event by providing a standardized, systematic and organized approach to the assessment, planning, intervention and evaluation of the trauma patient.

Advanced Trauma Care for Nurses (ATCN) Provider

July 23 and 24, 2010, 7 a.m. to 5:30 p.m.
This two-day course is taught concurrently with the Advanced Trauma Life Support course for physicians. ATCN skill stations are based on interactive hands-on, scenario-based approach to adult education. The ATLS Student manual accompanies the ATLS lectures. The ATCN course is under the auspices of the Society of Trauma Nurses (STN). The STN-ATCN program verifies successful completion of the course and provides continuing education credit for course completion.

ATLS Provider Course (for physicians/middle level providers only)

June 26 and 27 or July 23 and 24, 7 a.m. to 5:30 p.m.
This two-day course is designed to assist doctors in providing emergency care for the trauma patient. The concept of the "golden hour" emphasizes the urgency necessary for successful management of the injured patient. This course provides essential information and skills to identify and treat life-threatening or potential life- threatening injuries.

ATLS Refresher (for current physician providers only)

November, 2010 (date to be announced), 7 a.m. to 1 p.m.
This half-day course requires a current ATLS Provider certification. The ACS grants a six-month grace period to facilitate the re-verification process. A copy of your current ATLS care MUST accompany your registration.

SLU Hospital CEO Receives Patriot Award

On Friday, January 8, 2010, a crowd of employees gathered in the atrium of the West Pavilion to celebrate Crystal L. Haynes, Chief Executive Officer at Saint Louis University Hospital, for being honored as a recipient of a Patriot Award from the Employee Support of the Guard and Reserve (ESGR), a staff organization within the U.S. Department of Defense. The national patriot award recognizes employers who go beyond legal requirements to support their military reserve employees.

Major James Stenger, R.N., nominated Haynes for the award because of her strong and unwavering support of him and his family during his recent deployments to Afghanistan. Stenger currently serves as Major in the U.S. Air Force Reserve, 932 Medical Squadron at Scott Air Force Base in St. Louis, Missouri.

"It is an honor to receive an award such as this on behalf of the hospital, yet I am humbled by the meaning behind this award. This award extends beyond me and continues down through everyone here at the hospital. We truly value the sacrifice our service men and women make for our country each day. When one of our coworkers at SLU Hospital makes the commitment to serve, the rest of us will stand by them as they fight for our freedom," says Haynes.

This award from the ESGR was a high honor because it is the service members who nominates their facility. Major James Stenger nominated Crystal Haynes for this high honor.

Cathy Fugina, Supervisor for Nursing Services at SLU Hospital, is an excellent example of the employees who care. She tirelessly helped to adjust the nursing schedules and took on more duties until James returned. Her help didn't stop at the hospital. Cathy also remembered James' family, who were also feeling the loss with his absence. She located tickets for his family to attend hockey and baseball games in honor of James and even remembered his wife with flowers on Mother's Day. There were many other nurses and staff who shared concern or offered to help whenever there was an opportunity.

"It is comforting to know that my employer embraces and supports my military service. Crystal not only supports my role but she also provides

a home for the Air Force with the C-STARS program. When I'm oversees and engaged in active duty, I know that my job is protected and I can focus on my duties," says Major Stenger.

SLU Hospital is one of only three C-STARS locations in the United States. C-STARS is the Center for the Sustainment of Trauma and Readiness Skills, a program that rotates active-duty Air Force health care providers through Saint Louis University Hospital's Trauma department.

"The U.S. Department of Defense recognizes Saint Louis University Hospital as an outstanding organization that has and is continuing to support a strong National Guard and Reserve force," says Stan Brasch, Awards Director, Missouri Committee, ESGR.

During the ceremony, Haynes signed an official "Statement of Support" on behalf of Saint Louis University Hospital for the U.S. Department of Defense, which demonstrates that the hospital understands and places high value on the importance of military service. EP

Dedication

This issue is dedicated to St. Louis Police Officer David Haynes. Officer Haynes is remembered as a family man, veteran and a dedicated officer who died doing what he loved.

EMS BBQ

MONDAY, MAY 17

11 A.M. TO 7 P.M.

TOWER GROVE PARK

The annual EMS BBQ will be on Monday, May 17, in Tower Grove Park at the Turkish Pavilion. Emergency department nurses and doctors and other emergency personnel who serve the community will be honored at this outstanding event! Be certain to stop by and enjoy St. Louis style BBQ and good friends! A special thanks to all of the EMS professionals who work so hard throughout the year to serve our community.

Saint Louis University Hospital is the place people want to be when they need more medical expertise and technology than they can find at their community hospital. It's also the place to go to look for answers and hope. Our highly skilled doctors, nurses and other health professionals are at their best in challenging, critical situations. We are here to care for the area's most seriously ill and injured around the clock, 365 days of the year.

SLU*Care*, the clinical practice of the physicians of Saint Louis University School of Medicine, practices patient-centered health-care services in the St. Louis region guided by Judeo-Christian values and dedicated to excellent service in the Catholic Jesuit tradition. SLU*Care* physicians have pioneered many medical breakthroughs in trauma care, organ transplantation, cardiac surgery and treatment of brain disease and liver disease, among others.

EMERGENCY PERSPECTIVES is published by the Marketing and Public Relations Department of Saint Louis University Hospital. A reprint of any article in this publication is offered free of charge as a community service. Call (314) 268-5770 for more information.

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