

UPSTATE

MEDICAL UNIVERSITY

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Knowing changes everything.SM





CHEST PAIN ACCREDITATION

Upstate University Hospital received full accreditation from the Society of Chest Pain Centers in December as an Accredited Chest Pain Center.

The society is an international not-for-profit that is focused on helping hospitals improve quality, cost and patient satisfaction in cardiovascular care.

Hospitals that are Accredited Chest Pain Centers have developed an expertise in dealing with patients who arrive with symptoms of a heart attack. Their staff emphasizes the importance of standardized diagnostic and treatment programs for chest pain and heart attack. They also evaluate and treat other medical problems and promote healthy lifestyles that can reduce the risk factors for heart attack.

Upstate is an accredited Chest Pain Center with “PCI,” percutaneous coronary intervention, which is emergency treatment that reduces the amount of heart muscle permanently damaged by heart attack.

To become accredited, Upstate had to:

1. reduce the time from the patient’s onset of symptoms to the diagnosis and treatment;
2. treat patients more quickly during the critical window of time when the integrity of the heart muscle can be preserved; and
3. monitor patients when it is unclear whether they are having a heart attack, to make sure they are not sent home too soon.

“People tend to wait when they think they might be having a heart attack, and that’s a mistake,” says Gregory Fink MD, chief of cardiac surgery at Upstate. “The average patient arrives in the emergency department more than two hours after the onset of symptoms, but what they don’t realize is that the sooner a heart attack is treated, the less damage to the heart and the better the outcome for the patient.”

Accreditation through the society is more collaborative than other traditional certification models.

The accreditation process begins with a document that details key elements of optimal care. Its content is derived from peer-reviewed medical journals, professional society guidelines and the body of clinical acumen of participating clinicians. Specialists from the Society of Chest Pain Centers provide feedback, education and resources to help hospital staff improve the process of caring for acute coronary syndrome patients.

At Upstate, when someone arrives complaining of chest pain that may be signaling a heart attack, he or she goes directly to the “Cath Lab” for a cardiac catheterization. Doctors determine if any blockages in the arteries that feed the heart need to be stented, or if bypass surgery is required. This all happens within the first 60 to 90 minutes of arrival — by a hospital staff so skilled and knowledgeable about treating chest pain that it has earned status as an Accredited Chest Pain Center. ■





Upstate's Stereotaxis® magnetic navigation system

RESTORING NORMAL HEART RHYTHM



Physicians can prescribe medication to control irregular heartbeats, but many patients are opposed to a life-long prescription and the medication's side effects. Instead, they prefer their heartbeat be restored to a normal rhythm.

One way is through cardiac ablation, in which radio waves are applied to problem cells. The heart beats normally once those cells are disabled. The challenge is locating those cells and positioning the tool inside the heart to deliver the heat waves.

Cardiac electrophysiologist Tamas Szombathy MD uses Upstate's new Stereotaxis magnetic navigation system to perform cardiac ablation. He believes he is the first doctor in the world to use stereotaxis to correct ventricular tachycardia originating in the delicate area of the heart's tricuspid valve, a procedure he accomplished in December.

He saw the patient for a followup recently, and she said she felt "fantastic."

The navigation system in Upstate's Heart and Vascular Center uses two permanent magnets on pivoting arms which are positioned on either side of the patient. The physician inserts a catheter about the consistency of a cooked spaghetti

noodle into a blood vessel in the patient's groin. The catheter's tip is magnetically driven and acts like an antenna to receive electrical signals inside the heart. Szombathy uses a joystick to navigate the catheter.



Tamas Szombathy MD

"It is so flexible I can coil it several times, compared to conventional catheters, which are stiffer," he says. That, and the precision allowed by the stereotaxis system, makes this type of ablation safer for patients.

Most go home with a small bandage on the groin a couple hours after the procedure.

Using stereotaxis to get to the source of palpitations is like using a Global Positioning System to get to a location in your car, Szombathy says. "The heart gives out tiny electrical signals," he explains. "Heart arrhythmias are irregularities of the heartbeats.

"We navigate close to the tiny electrical signal, and target the signal with radio waves. These radio waves heat up that tiny spot in the heart, and eliminate the irregularity right away."

Szombathy came to Upstate in 2010 from Boston where he trained at Tufts University. ■

TREATING LIVER CANCER

A liver cancer diagnosis used to come with little hope. “That’s changing,” says Dilip Kittur MD, chief of Hepatobiliary and Pancreatic Surgery at Upstate.

Kittur began offering surgery for cancer of the liver, bile ducts, gallbladder and pancreas in 2005, because so many patients had to leave Central New York to get care. Kittur’s background in kidney transplant surgery, immunology and endocrinology allowed him to easily expand into treatment of these cancers. And this fall a second surgeon, Krit Kitisin MD, joined the Upstate team.

Their treatment may involve removing the cancer through surgery, or shrinking the tumor first and

then operating. Depending on the size and location of the tumor, the surgeon may recommend blocking the tumor’s blood supply with beads of chemotherapy (chemo-embolization), or they may use radiofrequency ablation to burn the tumor.

About 60 to 65 percent of liver tumors are in the right lobe. In those cases, removing the entire lobe will allow the organ to regenerate. Kittur says if the tumor is successfully removed, patients have up to a 50 percent survival rate five years after surgery. ■



Dilip Kittur MD



Krit Kitisin MD

UPSTATE UNIVERSITY HOSPITAL NEWS

tPA FOR SEVERE FROSTBITE

A mputation is often the treatment for severe frostbite, but an interventional radiologist at Upstate offers specialized treatment that could change that. Dianbo Zhang MD uses the drug, tPA (tissue plasminogen activator) to dissolve blood clots and restore circulation to limbs that have frozen.

He says patients have a significantly better chance of avoiding amputation when trans-arterial thrombolysis is administered within 24 hours. A study of severe frostbite patients in Utah showed 41 percent who did not receive tPA lost fingers, hands, toes or feet. Only 10 percent who received tPA underwent amputations.

Zhang inserts a catheter into the femoral artery in the patient’s groin and injects a dye that, combined with Xray, allows him to see blockages. The medication is directed to the area of injury and administered over 12 to 24 hours. Since tPA carries with it the risk of internal bleeding, certain patients with blood disorders are not candidates for this treatment.

Central New Yorkers are most familiar with stage 1 frostbite — frostnip — characterized by cold fingers that burn or tingle. Once we go inside, our pale fingers turn red as we warm. People with stage 2 frostbite temporarily lose sensation as their skin freezes and blisters form.



Dianbo Zhang MD

If deep tissue is affected, frostbite is classified as stage 3 or 4. Blisters that form fill with blood, and people lose the ability to feel their fingers. These are the patients Zhang is poised to help with tPA. Some damage from severe cases of frostbite cannot be reversed, but even in those instances Zhang says he may be able to reduce the amount of tissue that must be amputated.

Zhang treated more than 50 thrombosed patients in China and more than 20 in Boston before accepting a position as an assistant professor of radiology at Upstate last summer. He completed fellowships at Massachusetts General Hospital/Harvard University and Brigham and Women’s Hospital in Boston. ■

NEW STUDY ON FOOT DROP DEVICE



Margaret Turk MD and Lynne Logan PT, PhD

Adults who have had a stroke and are experiencing foot drop may be eligible to participate in the Upstate Medical University INSTRIDE Stroke study that compares the use of a functional electrical stimulation (FES) device with an ankle-foot orthosis or brace, considered the standard of care for foot drop.

Upstate is one of 30 sites in the U.S. to recruit and test patients for the study. Margaret Turk MD, professor of physical medicine and rehabilitation, is leading Upstate's participation.

Foot drop is the inability to raise the front part of the foot due to weakness or paralysis of the muscles that lift the foot. "Stroke is one cause of foot drop, as it is a neurodegenerative disorder that results in muscular problems," said Dr. Turk. "The INSTRIDE Stroke study will determine if an FES device will show improvement over ankle-foot orthosis in clinically meaningful ways."

The FES device used in the study is the FDA-approved WalkAide system. Unlike a brace that controls the position and motion of the ankle, WalkAide is a battery-operated, functional electrical stimulation device that fits around the calf and functions by using a microprocessor with a built-in tilt sensor. The sensor allows for precise timing of stimulus to create a normal gait pattern in the patient. The device fits on a small cuff, is the size of a pager, and can be worn with or without shoes.

To qualify for the study, participants must,

- be three months post stroke and have foot drop,
- walk at least 10 meters with or without a device for assistance such as a cane or walker,
- be currently covered by or eligible for Medicare or Medicare Advantage,
- not have an implantable cardiac device such as a pacemaker or defibrillator,
- have had no major surgery in the last 90 days, and
- be able to accurately complete study questionnaires and correctly use the WalkAide or ankle-foot orthosis.

Volunteers will be selected at random to receive one of the two devices. Patients who are randomized to a brace will be eligible for a WalkAide at the end of the study.

Study participants will be followed for one year to determine if the WalkAide shows clinical improvement over the ankle-foot orthosis. Participants will undergo testing that includes a Berg Balance test, 10 meter walk test, and the Emory Functional Ambulatory Profile.

The INSTRIDE Stroke study is sponsored by Innovative Neurotronics Inc. For more information, contact Lynne Romeiser Logan PT, PhD at loganl@upstate.edu. Physicians who wish to refer a patient may have the patient call the study screening line at 877-318-7615. ■

JOINING FORCES TO AID VETS WITH PTSD, BRAIN INJURY

Upstate Medical University is participating in First Lady Michelle Obama's Joining Forces initiative that will increase training and research on post-traumatic stress disorder and brain injuries.

The initiative creates a stepped up commitment on the part of the Association for American Medical Colleges and American Association of College of Osteopathic Medicine to address the healthcare needs of U.S. veterans and their families that face health challenges, including post traumatic stress disorder and traumatic brain injury.

"Upstate is proud to be a part of this," said David Duggan MD, interim dean of the College of Medicine. "Our proximity to Fort Drum and the Veterans Affairs Medical Center makes it especially important that we commit to Joining Forces."

"I'm inspired to see our nation's medical schools step up to address this pressing need for our veterans and military families," Obama said. "By directing some of our brightest minds, our most cutting-edge research, and our finest teaching institutions toward our military families, they're ensuring that those who have served our country receive the first-rate care that they have earned."

By joining the initiative, Upstate pledges to:

- Enrich medical education to ensure that current and future physicians are trained in the unique clinical challenges and best practices associated with caring for military service members, veterans, and their families;
- Disseminate the most up-to-date diagnostic and therapeutic information as it relates to traumatic brain injury (TBI) and psychological health conditions, such as post-traumatic stress disorder (PTSD);
- Grow the body of knowledge leading to improvements in health care and wellness for our military service members, veterans, and their families; and
- Join with others to further strengthen the supportive community of physicians, institutions, and health care providers dedicated to improving the health of military service members, veterans, and their families.

HONORING BARRY BERG



N. Barry Berg PhD

During his 40 years at Upstate, Barry Berg PhD, professor of cell and developmental biology, taught many physicians who are practicing today. To honor him, the N. Barry Berg Scholarship for Musculoskeletal Medicine has been created and will be awarded annually to a medical student who excels academically and plans to pursue an area such as orthopedic surgery, physical medicine and rehabilitation or sports medicine.

Berg, recipient of the SUNY Chancellor's Award for Excellence in Teaching, teaches anatomy classes and directs the Anatomical Gift Program at Upstate. He has served as assistant dean for student affairs and as a member of the National Board of Medical Examiners Test Materials Development Committee.

For more information or to contribute, contact Vincent Kuss, director of the Upstate Medical Alumni Association, at 315.464.4361, kussv@upstate.edu. ■



Remembering
December 8, 1980

TRYING TO SAVE JOHN LENNON

David Halleran MD was a third-year general surgery resident at Roosevelt Hospital, busy with a consult about 10:45 p.m. Dec. 8, 1980 when he was paged to the emergency department. A police car was en route to the New York City hospital carrying a patient with a gunshot wound to the chest.

“They didn’t say it was John Lennon,” Halleran recalled 31 years later. “I’m glad I didn’t know.”

From the police car, he was placed on a stretcher and wheeled into room 115. Members of the trauma team started intravenous lines, placed a breathing tube and cut off the patient’s clothes — a red T-shirt, leather bomber jacket and jeans. Halleran quickly prepared for a thoracotomy, to cut open the man’s chest.

“He was not responsive, didn’t have a pulse, didn’t have a blood pressure,” Halleran said. “I poured Betadine on his chest, and opened up his chest. His heart was intact, but empty. He had a lot of blood in his thorax. And he had four entrance wounds over his left chest, and three exit wounds over his left back. Shot at close range.”

Halleran used his hands to squeeze the man’s heart, trying to restore life. About 15 minutes into the lifesaving effort, a nurse commented that the man looked like the Beatle, John Lennon.

Someone opened the man’s wallet. It contained a

gold American Express card with the name John Lennon and a picture of Lennon with his son, Sean, in front of a white Rolls Royce, Halleran recalled. They didn’t want to believe what was happening.

Halleran said the team worked on Lennon for about 45 minutes before he pronounced him dead. Lennon bled out, most likely because bullets tore the large vessels below his collar bone. Halleran did not come across a bullet in Lennon’s body but said the medical examiner may have.

Hundreds of people converged on Roosevelt Hospital moments after Lennon’s death, holding an impromptu memorial. Halleran, who now works as a colorectal surgeon at Syracuse’s Upstate University Hospital at Community General, admitted that he felt “a little nervous” to be working on Lennon. Afterward, he was upset by the death. “I couldn’t turn on a radio or read a newspaper for three days.”

Media reports about Lennon’s death have not been accurate, Halleran said. Recently, he shared his story for the first time to set the record straight about how things happened that night. Halleran was a Beatles fan. He particularly liked Lennon’s last album, “Double Fantasy,” produced after he put his career on hold to take care of his son. ■



David Halleran MD