

# STROKE

STATUS REPORT



**UPSTATE**  
COMPREHENSIVE STROKE CENTER

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# UPSTATE

COMPREHENSIVE STROKE CENTER

## A MESSAGE FROM THE MEDICAL DIRECTOR



### Dear Central New York Community,

In 2018, stroke treatment breaks another glass ceiling, with new options becoming available for treating stroke patients previously deemed ineligible for any acute intervention. Mechanical thrombectomy, a procedure that retrieves blood clot inside a brain blood vessel, can now be offered to patients presenting beyond the previously defined time window for treatment of 6 hours from symptom onset, for up to 24 hours, expanding the possibility of acute intervention to most patients presenting to the emergency room with acute stroke symptoms.

Upstate was at the forefront of this revolutionary stroke intervention, being an active enrolling site for one of the two randomized controlled trials showing very promising results. As a result of this, we were able to offer this treatment several months before it became available to the public. In 2018, Upstate performed more acute stroke interventions than any other hospital in the region. Among patients treated with mechanical thrombectomy, one out of three patients were previously out of the

time window, and were treated using the new stroke treatment paradigm.

As the largest neuroscience team in the region, with hundreds of hospital staff and specialists, Upstate University Hospital remains the only Level 1 Academic Comprehensive Stroke Center in the region with Telestroke capability, the highest level of stroke certification available. Our Telestroke network has continued to grow and expand, supporting 10 community hospitals. We continue to provide stroke education to the public using multiple approaches, including public education, public awareness campaigns, and public engagement in stroke and cardiovascular disease activities. We also have engaged local and community providers in continuing medical education with our annual Regional Upstate Stroke and Health summit (RUSH).

Consistency, speed and safety define the quality of stroke care at Upstate. Our treatment time for giving the clot-busting medicine for stroke is the fastest with greater than 86 percent of patients receiving it in less than 45 minutes from

arrival to the emergency room (compared to 40.5 percent found in a Coverdell national cohort of acute stroke hospitals, and the 50 percent American Heart Association Target Stroke goal) and greater than 38 percent receiving it in less than 30 minutes. The American Heart Association current recommendation is less than 60 minutes. Faster times means more brain cells saved.

Our commitment to the Central New York region remains. We will strive to provide the highest level of care for stroke. And we will continue to strive to be better.

We are happy to share with you our accomplishments this past year and our current initiatives for the current year.

Sincerely,

*Julius Gene Latorre, MD, MPH*  
Medical Director,  
Upstate Comprehensive Stroke Program

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# STROKE CARE

Upstate University Hospital is the only academic medical center in the Central New York Region. The region we serve covers over one-third of our state. Our medical professionals are dedicated to providing the best care possible and to meet or exceed the needs of our patients and families. We are able to provide expert care with a dedicated Childrens hospital along with state-of-the-art, specialized care for trauma, burns, cancer and hematology and stroke.

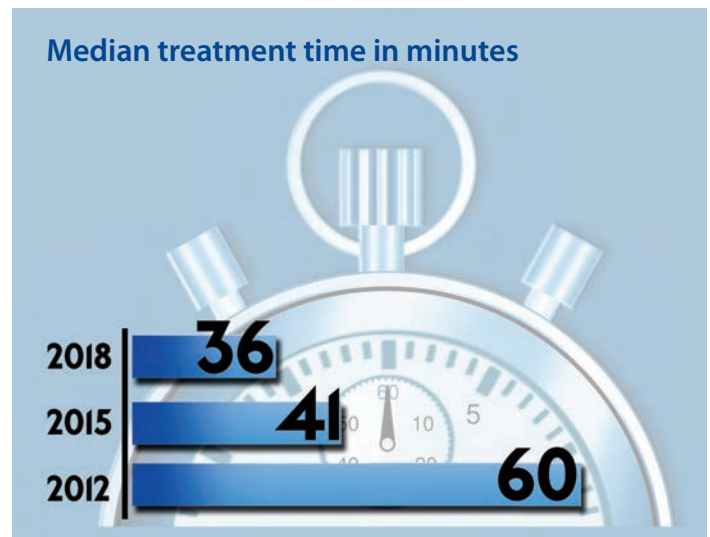
In the 1970s, Upstate University Hospital was the first hospital in the region to establish a dedicated neuroscience intensive care unit.

We continued that commitment when we became the first designated stroke center in 2006 and also the first to achieve Comprehensive Stroke Center status in 2015, the highest level of stroke designation. Our Neurosurgical and neuro-critical care teams offers patient the most advanced skills and technology available today.

As an academic medical center, we have the opportunity to offer many of our patients participation in clinical trials. These types of research studies can help to determine whether new drugs or treatments are safe and effective. Some of our research and best-practice focused work has been published in national journals and highlighted this year at the Northeast Cerebrovascular Consortium and the International Stroke Conference. It is our mission to strive to understand and implement the latest, most progressive options available for treatment and care of individuals facing a stroke.

## We do it fast.

- The graph below represents how we were able to significantly improve our median door to tPA treatment time over the last six years.





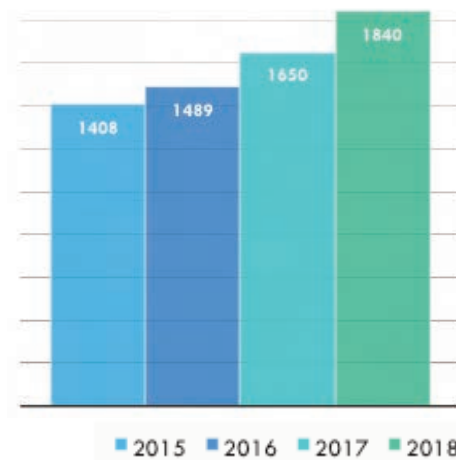
The Upstate Comprehensive Stroke Center accepted the American Heart Association/American Stroke Association Get With The Guidelines-Stroke Gold Plus & Target: Stroke Elite Plus Honor Roll Award. This honor is awarded to hospitals that consistently treat stroke both quickly and safely. We are proud to have received this award for the third year in a row!



### We do it safely.

- Upstate has earned recognition for target: Stroke Honor Roll-Elite Plus: Time to thrombolytic therapy within 60 minutes in 75 percent or more of acute ischemic stroke patients treated with IV tPA AND time to thrombolytic therapy within 45 minutes in 50 percent of acute ischemic stroke patients treated with IV tPA (current criteria and same volume thresholds)
- Gold Plus: recognizes performance of 24 consecutive months with STK measures (arrive by 2, treat by 3, early antithrombotics, VTE prophylaxis, anticoagulation, smoking cessation, statins)

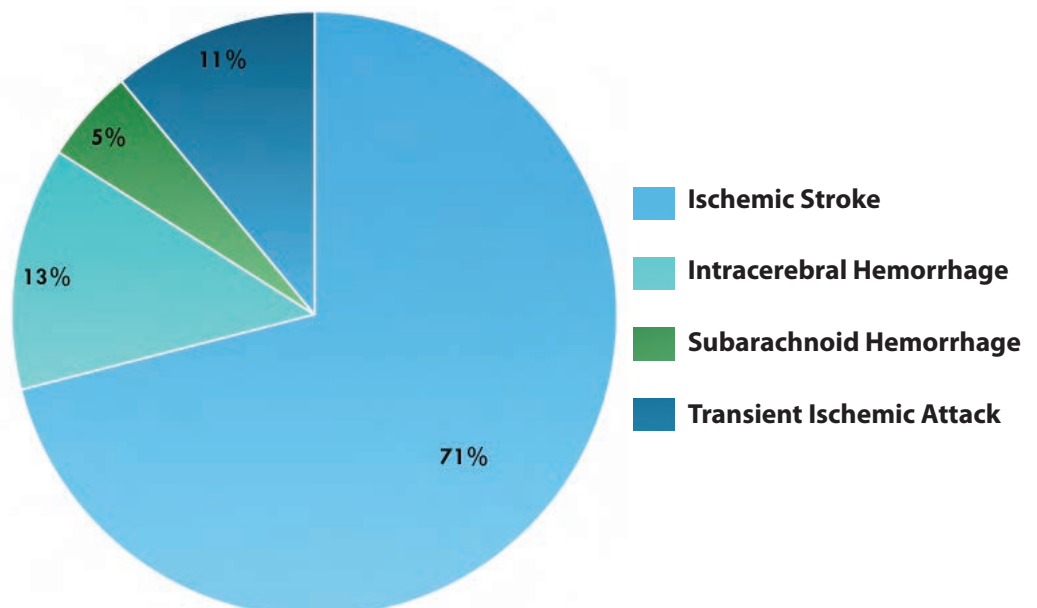
### Total Patients Treated



### Patients Diagnosed with Stroke



### Types of Strokes treated in 2018



### We do it often.

- These graphs show the volume of patients evaluated for stroke. A sub-set of these patients were diagnosed with stroke (ischemic or hemorrhagic). The Upstate Stroke Program has seen a consistent increase in patient volume over the past four years.



Joshua Onyan, BSN, RN, SCRNI

## A NOTE FROM THE STROKE PROGRAM MANAGER

As 2018 brought amazing breakthroughs with stroke care (extending endovascular therapies up to 24 hours on select stroke patients), the Upstate Stroke Program was able to treat about 33 percent more patients. These additional patients would not have been offered treatment prior to 2018 (DAWN and DEFUSE3 trials validated endovascular treatment beyond the standard six hours of last known well). Ninety-five patients received endovascular interventions, 62 received treatment within the standard six-hour window, and 33 patients were treated with endovascular therapies with a last known well of six hours or greater.

tPA (Alteplase) remains the standard of care for the treatment of ischemic stroke. In 2018, Upstate provided 106 doses of tPA (significantly more than the 89 doses from 2017). Upstate Stroke Program also provided post-tPA care for 59 “drip and ships” patients. Not only were we able to dose tPA frequently, but also quickly. Our median tPA dosing time for 2018 was around 35 minutes (of arrival to the ED). The program continues to work toward a less than 30 minute tPA dosing time.

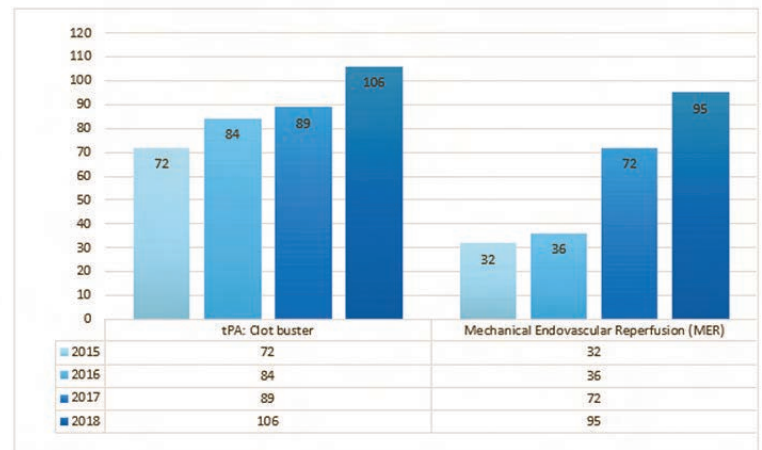
We continue to work on the internal process of moving the patient from ED to IR suite in under 60 minutes, which is our program goal. We provide case-by-

case feedback to all staff involved looking for any suggestions, comments, or ways that the process could have been improved to expedite door to IR arrival. Our median ED to IR times vary month to month, with an increasing amount under 90 minutes.

As a region, we are looking at pre-hospital assessment tools that could allow EMS to recognize these large vessel strokes (LVO) that require endovascular treatment. Through our Regional Stroke Advisory Council (RSTAC), we have chosen to endorse the FAST-ED scale. The program will work on disseminating training and information on this tool to all the EMS providers in our area. This tool screens for the typical FAST stroke signs, but also adds eye deviation and denial/neglect, which can be highly indicative of (LVO). We are hoping that pre-hospital recognition of LVO can allow us to “mobilize” earlier and expeditiously move the patient to IR.

The program continues to work with NYS DOH Coverdell group on a Transitions of Care project. With the cooperation and partnership of the Upstate Triage and Transfer Center, we are making 30-day follow-up calls on all stroke patients who are discharged home or home with services. Questions range from medication compliance, and falls to hospital readmission. This data is being entered into Get With the Guidelines, allowing for a national data collection of this follow-up call.

I couldn't be more proud of our Upstate Stroke Team and I look forward to seeing how we can continue to improve the stroke care offered in our region!



# UPSTATE TELESTROKE NETWORK

*Via teleconferencing equipment, Upstate's Board certified Stroke physicians have instant access to the Emergency Departments of partnering regional hospitals. Using interactive computer videoconferencing via a secure internet network, the Upstate Neurologist and the patient, family and healthcare provider at the outlying hospital hear and see each other in real time. In addition to the telemedicine technology, which allows the patient to see the consulting Neurologist, the entire team of Upstate specialists are able to view CT scan images. This advanced technology enables physicians at Upstate to become virtual "on-site" consultants for outlying hospitals that do not have neurologists on staff.*

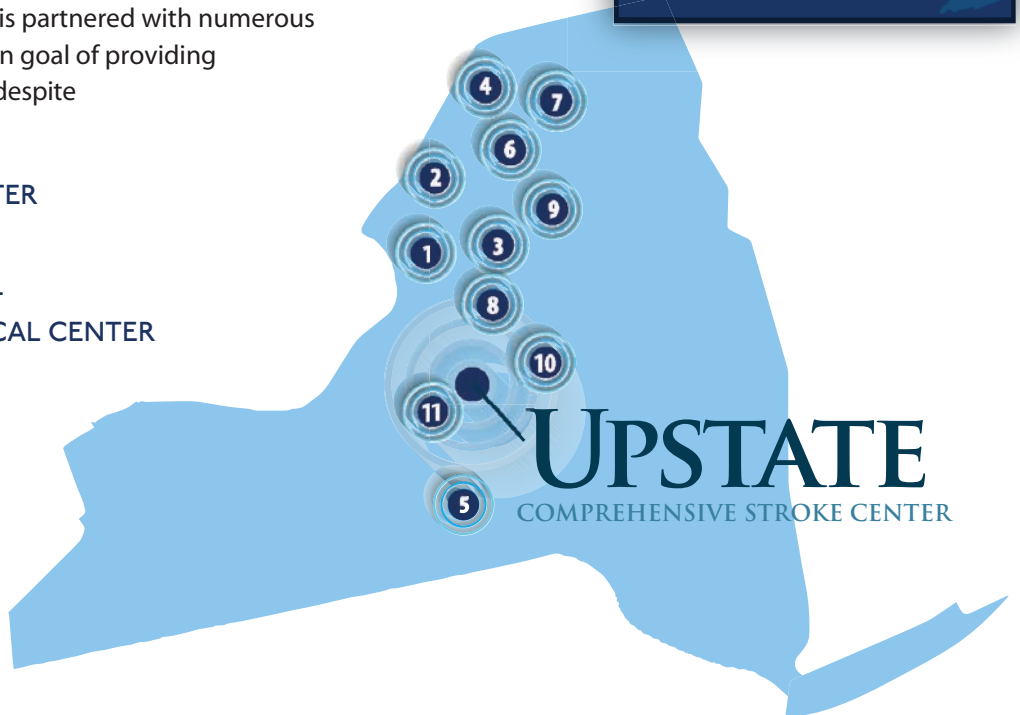


Through partnerships with the Fort Drum Regional Health Planning Organization and regional EMS agencies, Upstate is ensuring the most reliable stroke care, anywhere.

Started in 2015, the Upstate Telestroke Network has already positively impacted stroke care for patients in the large CNY geographical area that we serve. Our Stroke Program is partnered with numerous regional hospitals with the common goal of providing comprehensive expert stroke care, despite geographical limitations.



- 1 SAMARITAN MEDICAL CENTER
- 2 RIVER HOSPITAL
- 3 CARTHAGE AREA HOSPITAL
- 4 CLAXTON-HEPBURN MEDICAL CENTER
- 5 CORTLAND REGIONAL MEDICAL CENTER
- 6 GOUVENEUR HOSPITAL
- 7 CANTON-POTSDAM HOSPITAL
- 8 LEWIS COUNTY GENERAL HOSPITAL
- 9 CLIFTON-FINE HOSPITAL
- 10 ROME MEMORIAL HOSPITAL
- 11 UPSTATE UNIVERSITY HOSPITAL COMMUNITY CAMPUS



# PATIENT STORY

## A REMARKABLE RECOVERY

### The patient

The 50-year-old Marcellus resident had finished breakfast and was about to leave for work. "As I was walking out to the kitchen to say goodbye to my wife, my left foot felt heavy as I was walking the three or four steps to the chair. Then I kind of slid into the chair, and as my wife was talking to me, she could notice my face was drooping a bit, and as I was trying to speak with her, my speech was very muffled. Then my whole left side — my arm down to my feet — was gone. I couldn't feel it any longer, so she could tell something was wrong," he said.

Cartner's wife, Shirley, realized he was likely having a stroke and called 911, overruling his request to "just get me in the car" and drive him to the hospital. "She's the brains behind the whole thing. I can't praise her enough," her husband said of her insistence on an ambulance.

### The ambulance team

A Marcellus Ambulance crew quickly arrived, did a preliminary evaluation and got him ready for transport, recalled Stephen Knapp, the ambulance service's executive director, who took part in the call. "It was quite obvious he had had a stroke," he said. Crew members relayed their information ahead to Upstate University Hospital, so the stroke team

would be ready to receive the patient without delay.

"The ambulance crew asked us what hospital we wanted to go to, and we picked Upstate, knowing it was the place to go for stroke, because of the specialists there," Cartner said.

### The resident physician

"It was pretty clear he was having a stroke, even before he opened his mouth, because one side was completely limp, his face was drooping, but his speech was intact, so he was able to answer questions," recalled Claribel Wee, MD, the neurology resident who examined him.

Since the left side of the brain controls speech, his ability to talk signaled that the problem was likely on the right side.

"We found the large vessel occluded (blocked) exactly where we thought," Wee said. She summoned specialists Grahame Gould, MD, and Hesham Masoud, MD, who agreed on what to do next.

### The specialists

Gould would perform a thrombectomy, or clot removal, through interventional radiology. "Patients can make wonderful recoveries in a short time, even if they



*Dave and Shirley Cartner*

do not recover as fast as Dave did," Gould said of the procedure.

He said the results could have been "devastating" if Cartner had not gotten to a stroke center quickly.

### The outcome

After the thrombectomy, "Dr. Gould came in and checked on me. He was surprised I stood up and shook his hand," Cartner said.

"To go from that to be able to walk home — that's pretty incredible," Masoud said

He was discharged one day after he was admitted to the hospital.



*Many members of Upstate's stroke team had a role in caring for patient Dave Cartner.*





JoAnn Wickman

## PATIENT STORY

# FORTUNATE PATIENT GRATEFUL FOR STROKE CENTER

In her own words: Stroke survivor JoAnn Wickman recalls the morning of Feb. 9, 2018.

"I woke up at 5:20 in the morning. I woke up and thought, 'What the heck is going on? Something's not right,'" recalls JoAnn Wickman of Cortland. "I had this weird sensation. It felt like the tip of my tongue was somehow connected to my right cheek, with a strand like what I assume a spiderweb would feel like. It was such a weird feeling. It was pitch black outside, and I just woke up out of a sound sleep.

"Eventually I got out of bed and walked to the bathroom just fine. Then I thought, 'Something's not right here.' I still had this oddball sensation.

"My heart wasn't beating fast. I wasn't dizzy. I come from a long line of people who have died of heart attacks and strokes, so I've been pretty vigilant about paying attention. I've never had any heart issues. But my blood pressure had been spiking, and it was under a doctor's care.

"I thought about how I would say, 'Ken, wake up. Call 911. I think I'm having a

stroke.' That's not a complicated thing to say, but my tongue wouldn't work. I could only say 'Ken.'"

Her husband called 911. As the ambulance took her to nearby Cortland Regional Medical Center, Wickman, who was 75 at the time, remembers that she felt fine, but her blood pressure was high. "267 over something," she recalls. A blood pressure of 120/80 is considered normal.

"They did a CT scan, and the physician came in and said, 'There's something weird about this CT scan.' So they did an MRI, and the physician came in and said, 'I want you at a stroke center. Where do you want to go?'"

Wickman chose Upstate. "By noon, exactly at noon, I was in my room at the stroke center, where I stayed for five days. By this time, I'm chatting away and walking fine.

"They did what seemed like 10,000 tests. When they looked at the MRI, it was pretty subtle, but there were two spots where they found the stroke took place that made sense with my symptoms.

"The interesting thing about all of this is, nobody knows why I had the stroke.

"What was memorable to me is that the care at the stroke center was exemplary and respectful. I never felt anyone was talking down to me. All kinds of people came in and out. Most people said, 'You are so fortunate you knew what to do, and that you did it.'

"I tell people to remember FAST. Most of the time if a person's having a stroke, their face will look funny. Or their arm will be weak. The S stands for slurred speech (and the T stresses that time is of the essence). I say, 'If something doesn't seem right, it's better to call.'"

Wickman, herself, did not exhibit the classic symptoms of stroke. "I just felt weird," she says. "In retrospect, why did I think it was a stroke? I don't know, exactly, except for that sensation of my tongue being connected to my cheek. I was very fortunate."



## STROKE TEAM EXTENDS STROKE TREATMENT

Time is a critical element in the treatment of stroke, and now the stroke team at Upstate's Comprehensive Stroke Center is able to offer more of it to some patients.

The clot-busting, tissue plasminogen activator medication called tPA is most effective when it's given to someone whose stroke began within the previous six hours.

So what happens with the patients who awakens paralyzed by stroke – with no way of knowing if the stroke occurred right after they fell asleep at 10 p.m. or right before they woke up at 5 a.m.?

"It's dangerous to do an intervention if they will not benefit," explains Gene Latorre, MD, medical director of the stroke program. Unless the time the stroke began could be reasonably approximated within that 6-hour window, doctors had to err on the side of caution and skip using tPA.

The Upstate stroke team has opened that window wider with the addition of innovative imaging software called RAPID DICOM that can expand the window of treatment for some strokes up to 24 hours.

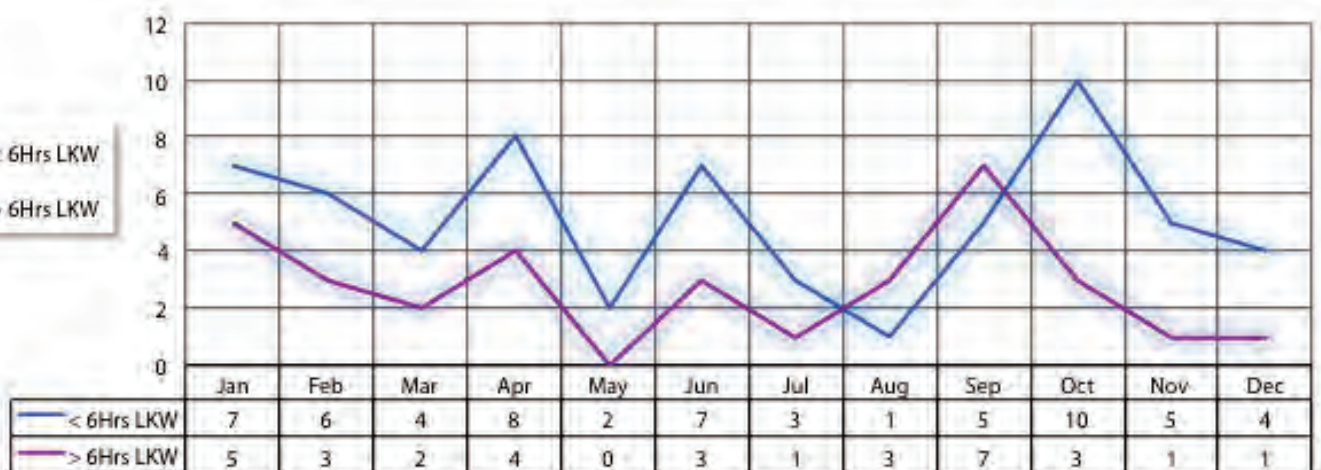
"Implementing this technology will improve our patients' outcomes and quality of life following stroke," Latorre says.

The software program shows changes in brain tissue perfusion and diffusion in digital images captured by computerized tomography and magnetic resonance imaging. This allows doctors to tell the precise area of the brain that is affected by the stroke, and the area still in jeopardy.

### STROKE CLOT RETRIEVAL: NEW GUIDELINES NEW POSSIBILITIES

In 2018, the American Heart Association guidelines were expanded to include safe clot retrieval for some patients whose stroke may have begun up to 24 hours prior, (vs six hours previously) based on detailed imaging studies of the brain.

#### 2018 Clot Retrieval Cases: Time from Last Known Well (LKW)



# CLOT-BUSTING MEDICINE SAVED HER FROM STROKE:

Retired physician assistant knew something wasn't right

## PATIENT STORY

Clot-busting medicine saved her from stroke: Retired physician assistant knew something wasn't right

Eileen Rosecrants became alarmed during a phone call.

"I couldn't speak clearly," she recalls of that evening last fall. It wasn't that her speech was slurred. She couldn't figure out what to say, so she abruptly hung up, thinking, "I'm not right."

Someone else then phoned her, and Rosecrants couldn't handle that call, either, so she hung up again. Then, the 73-year-old Baldwinsville resident phoned her sister in Syracuse, thinking she would understand something was wrong and call for help.

Her sister figured out there was a problem and alerted 911.

Rosecrants didn't call 911 herself because she worried that her inability to speak would delay help — but now she knows it's best to call 911 directly.

She was able to let the ambulance crew into her home, but when she tried to tell them where to take her, "I couldn't say the whole thing, just 'Up ... Ups ...,'" she recalled.

They understood.

She was familiar with Upstate's comprehensive stroke treatment program, after spending nearly 10 years as a physician assistant in geriatrics at Upstate before retiring in 2013.

She got the clot-dissolving drug, tissue plasminogen activator (tPA) quickly, once the stroke team determined that



bleeding was not a problem. Five or six hours later, in the neurological intensive care unit, Rosecrants began to feel better.

A day and a half later, she could repeat words and follow simple directions, such as lifting her arm. She was able to go home. "I was so much better. I had the words back. I could make sentences. I could be socially appropriate. But there was, and is, a deficit," she said.

She had weekly outpatient therapy to help restore speech and executive function — that is, the way people take in, think about and act on information.

Carrie Garcia, a speech-language pathologist at Upstate, helped her to regain skills, including finding the right words, organizing her thoughts and following a set of directions.

*Speech-language pathologist Carrie Garcia, left, works with stroke survivor Eileen Rosecrants.*

"People can relearn these things and gain them back," Garcia says, "not always to the exact same level as before the stroke, but sometimes a modified or adapted level."

Meanwhile, Rosecrants has been living independently in her home, exercising at the YMCA three times a week, driving a car and shopping. She is grateful for Garcia's help.

As for what to do when someone is suspected of having a stroke, Rosecrants knows to tell people: "Call 911 as fast as you know there is something wrong."

## SHARING EXPERTISE:

### Doctors learn stroke care from experts at Upstate

*Chief neurology residents Gurmeen Kaur, MBBS (left), and Vishal Shah, MBBS (right), facilitate a stroke simulation with resident Claribel Wee, MD, and a "patient"*

Like neurology residents throughout the United States, the doctors training in neurology at Upstate learn the National Institutes of Health "stroke scale." This is a tool that helps health care providers measure a patient's impairment from a stroke.

In addition, the neurology residents participate in a simulation program with details from patient care that took place at Upstate University Hospital.

"This is different from watching videos on the Internet," says Hesham Masoud, MD. "There's a lot of utility and advantage to practicing stroke skills in front of an audience."

Masoud, a member of Upstate University Hospital's stroke team, is a clinical assistant professor of neurology, neurosurgery and radiology. That means when he is not taking care of patients, he is involved in stroke research and the education of doctors who will care for stroke patients.

Identifying and treating stroke "takes coordination and rapid analysis. It's a sophisticated interpretation," Masoud says. He



adds that through the simulation — in which one resident plays the role of the patient while another provides the care — residents learn how to make crucial decisions quickly.

"It's essentially a confidence-building exercise," agrees Vishal Shah, MBBS, one of the chief residents. He says nurses and pharmacists are part of the simulation, so that the resident in the spotlight goes through the motions as he or she would in the emergency department

After the simulation, the residents ask and answer questions, hear about pertinent research that has been published and discuss the reasoning behind certain aspects of treatment. They also take a test before and after the simulations to show their level of knowledge of vascular neurology.

## STROKE NURSES: Certified and on the move



Upstate Neuroscience Nurses are knowledgeable and experienced in the care of the patient experiencing a stroke. As a teaching hospital, Upstate values education and offers opportunities for nurses to continue scholarly pursuits. Our Neuroscience Nurses hold a variety of degrees and national certifications, many holding multiple certifications.

### **Certifications including** (but not limited to):

**CNRN** - Certified Neuroscience Registered Nurse

**SCRN** - Stroke Certified Registered Nurse

**NVRN-BC** – Neurovascular Registered Nurse- Board Certified

**ENLS** - Emergency Neurological Life Support

**ASLS** - Advanced Stroke Life Support

Upstate Neuroscience Nurses have attended many conferences outside of the hospital in addition to educational opportunities within the institution.

**ISC** – International Stroke Conference

**NECC** – North East Cerebrovascular Consortium

**AANN** - American Association of Neuroscience Nurses- Annual Educational Meeting

**AANN** - American Association of Neuroscience Nurses- Stroke Conference

**RUSH** – Regional Upstate Stroke and Health Summit

**STAR** – Stroke Treatment Alliance of Rochester

# SPECIAL REPORT:

## STROKES ON THE RISE AMONG YOUNGER ADULTS

**Ischemic stroke in the young accounts for 15 percent of all stroke cases. In young patients 50 percent of strokes are attributed to brain bleeds (hemorrhagic strokes).**

“Young” is defined as under 50 years of age in most published series. The prevalence of stroke in the young may be rising in the United States, this may be related to diet and lifestyle. Because of the relative rarity of stroke in the young, there can be delays in diagnosis, especially if symptoms are nonlocalizing.

The most common modifiable risk factors for stroke in older adults also apply to young adults, such as tobacco smoking and high blood pressure, but atherosclerosis, heart disease and irregular rhythms are less common. Other causes of stroke in younger adults include inflammatory/infectious causes, arterial injury (known as dissection, which can be spontaneous or as a result of trauma) and disorders of the clotting system (congenital or acquired). In some, a structural defect in the heart called a “PFO” is identified and can be implicated in the mechanism of stroke in younger patients, and its closure (in carefully selected patients) may be beneficial in preventing future events. Drug use and rare genetic disorders are also considered if no cause is identified. Causes of stroke can vary according

to geographical, socio-economical and environmental factors.

The early treatment of stroke in younger adults is the same as standard of care including administering clot-busting medications (intravenous thrombolysis, with tPA) and retrieval of larger clots (thrombectomy with catheters and devices). Prevention strategies for recurrent stroke depends on the identified cause of stroke but may include a blood thinner or, more rarely, steroids or antibiotics.



*Hesham E Masoud, MD*  
*Assistant Professor of Neurology*



# STROKE SUPPORT: AFTER THE HOSPITAL

## STROKE CLINIC OFFERS EXPERT CARE

After discharge from the hospital, the most difficult part for many stroke patients is the need for guidance and assistance adjusting to their "new normal". All stroke patients are encouraged to have a follow up visit with our specialized stroke providers at our affiliated clinic in Syracuse. Located a block away from Upstate hospital at UHCC Upstate Neurology office, our stroke clinic is staffed with Stroke Neurologists, Stroke Nurse Practitioners and Nurses who understand the challenges faced by our patients. Their primary goal is to work in tandem with the patient's primary care provider to help manage the effects of the stroke, assist the patient in transitioning back home or post-rehab as well as lowering their risk of re-current stroke as much as possible. Should they be required, the stroke/neurology clinic staff can call on resources such as an on-site staff pharmacist, social worker and physical therapists.

Patients are contacted right after discharge by one of the office coordinators who will "check in" with patient or caregiver and work with them to schedule their stroke follow-up appointment within the first 90 days. This is done primarily to ensure that the patient will be able to see their primary care provider as soon as possible after discharge to ensure the new change in the patient's condition is incorporated into their whole health picture. Also during that call the office coordinator assists with any questions, directs the patient to any resources or necessary pre-appointment testing. The staff at our UHCC stroke clinic is committed to reducing any challenges or obstacles patients may have toward their best possible recovery from their stroke.



## CNY STROKE AND ANEURYSM SUPPORT GROUP

Social support is important in stroke recovery. Social isolation has been called a risk factor for a poor outcome after stroke. Family and friends provide important support for many survivors, but stroke support groups can also play a vital role in stroke recovery. They can decrease the isolation of both survivors and family, and introduce new friends to replace those often lost after the stroke.

Join fellow survivors, family members and care providers to learn more about living and loving life after stroke and brain aneurysm.

Each meeting will have an educational featured speaker and provide ongoing support to discuss recovery topics and additional resources. These meetings will also provide an opportunity for members to connect and support each other beyond monthly meeting times.

**Meetings are held on the 3rd Monday of the Month**

**5-7 p.m.**

**One Telergy Parkway  
6333 State Route 298  
East Syracuse NY**

For more information on this free support group gathering contact:  
OASIS/HealthLink at (315) 464-8668.

For a list of meeting dates and topics go to: [www.upstate.edu/strokesupport](http://www.upstate.edu/strokesupport)



# NURSE/HERO

## OFF-DUTY NURSE SPOTS STROKE IN PROGRESS, SPRINGS INTO ACTION

Cassandra “Sandi” Bradford, a diabetes nurse educator, was dining with a high school friend at the Bonefish Grill in Fayetteville Towne Center. After their meal, Bradford realized she had left her purse in the waiting area. When she returned for it, she noticed an elderly woman with a walker who seemed lost. The woman, who was 90, said she was about to leave with a relative after their dinner.

Bradford and the woman then left at the same time, Bradford through a revolving door, and the woman through a regular-style door beside it.

“Now, you’ve got to picture that I’m in the glassed-in revolving door, and I notice her arm drop off of the walker, and then I notice she couldn’t lift her foot to walk through the door, and I’m looking at her, and I’m saying, ‘She didn’t look like that a second ago,’ so I go back.

“And I hear the person holding the door say, ‘Come on,’ and I looked at her face, and I said, ‘Something’s wrong with her.’ And her relative said, ‘You look like you’ve had a stroke.’ I saw her face, and I turned her around, and I said, ‘Let’s get her back in and have her seated.’”

Bradford asked a hostess to call 911. Then she got the woman seated and tried to get some medical information from her while keeping her calm.

“She could still talk, but her speech was slurred. The right side of her face drooped, and her eye was closing on her right side,” Bradford recalls. She checked the woman’s pulse and borrowed a light from someone’s cellphone to check her pupils, while waiting for the ambulance.

The woman was initially upset at her relative, Bradford said. “She didn’t realize she was



having a stroke and just wanted to go home.” Bradford says the stroke’s effects got noticeably worse before the ambulance arrived.

The woman had a massive stroke. Bradford visited her in the intensive care unit the next day and they stay in touch. The woman has recovered but has lingering speech and movement problems.

“I don’t think I did anything different than I would want someone to do for me,” Bradford says. “It really, really touched my heart that I was able to help someone.”

*Cassandra “Sandi” Bradford,  
diabetes nurse educator with  
Upstate’s Joslin Diabetes Center.*

## PATIENT STORY

### MAKING THE MOST OF HER REHABILITATION AFTER A STROKE, SHE'S MOTIVATED TO LIVE HEALTHIER

Melissa Meloling can walk, if she keeps an eye on her feet so she doesn't trip. She learned how to tell time again. She's re-learning how to fix her hair, although assembling a ponytail is still tricky. Her vision returned. She ditched cigarettes.

She was revived from a stroke in June. Since then she's been putting her life back together. "It's been a wake-up call," says Meloling, 44, of Bridgeport.

Meloling takes medicine for high blood pressure, but she had skipped taking it. When her mother didn't hear from her one morning, she came to Meloling's house. Meloling was barely breathing. Her mother called 911 and performed cardiopulmonary resuscitation on her daughter with the help of the call center until the first responders arrived. She was rushed to St. Joseph's Hospital Health Center. Once it became clear that Meloling was having a stroke, doctors transferred her to the Comprehensive Stroke Center at Upstate.

She was recovering in a bed in the neurological intensive care unit when

Meloling regained consciousness a couple days later. She couldn't feel her whole right side. She was blind in her right eye. She couldn't think of the right words to speak. She was terrified. Her mother was at her bedside.

It would be eight weeks before Meloling would be able to go home – and only after extensive rehabilitation with a multitude of therapists, many of whom she still sees regularly, more than six months after her stroke.

"At one point my doctor told me that the stroke was blood-pressure related," she recalls.

When Meloling began working with occupational therapist Beth Rolland in August, she struggled to use a knife and fork. She had trouble brushing her teeth and washing her face. Buttons and zippers were a challenge, and she wasn't tying her own shoes yet.

Rolland is impressed with Meloling's determination. "She's doing all of those things now.

"She doesn't give up. She will keep trying and trying until she gets it."

For occupational therapy to make a lasting difference, patients have to continue work prescribed by their therapists at home. Rolland says some people don't make the effort and consequently don't see improvement. But Meloling is motivated. "That plays a huge role in her recovery," Rolland says.

With the support and love from her mom, stepdad and two aunts, Meloling continues to heal and work hard at rehabilitation daily, which also includes outpatient physical therapy.

Today she keeps careful track of her blood pressure, recording it three times a day. She works with her therapists to improve her brain's ability to follow a train of thought and to recall memories. And, through her rehabilitation, she has managed to quit smoking and says she no longer craves cigarettes.

"When something like this happens, and you need to make a change," she says, "you just do what you need to do."





Beth Rolland, Occupational Therapist works with Melissa to recover her handwriting and other skills.



"OT's work on regaining function and adapting tasks to maximize independence in all areas - physical, visual, cognitive - and in all spheres of life. We strive to allow our clients to live life to the fullest, whatever that means to them." - **Beth Rolland, OT, Occupational Therapist**



Speech/language pathologists assess, diagnose and treat patients who have incurred a stroke starting in the acute care setting, then in the rehabilitation setting and ultimately as outpatients. Areas addressed post-stroke include speech, language, cognitive-communication (attention, memory, problem solving/reasoning, executive functions), voice, swallowing and other related issues with the goal being to help the patient obtain the highest level of functioning in all areas. **Janice Singer-Wagner, MS, CCC/SLP, Licensed Speech/Language Pathologist**

## Upstate Regional Rehab Center: Great Gains

| URRC Stroke Patients  | Year End 2017                 |        | Year End 2018                 |        |
|---|-------------------------------|--------|-------------------------------|--------|
|   | Total URRC patients= 239      |        | Total URRC patients= 243      |        |
|   | Upstate Regional Rehab Center | Nation | Upstate Regional Rehab Center | Nation |
| Patient Acuity - Intensity of care required   | 1.7                           | 1.53   | 1.67                          | 1.53   |
| Admission FIM (Functional Independence Measure) Scores (lower score is higher disability) | 48                            | 50     | 47.3                          | 50.4   |
| Average Gain in FIM (Functional Independence) from admission to discharge                 | 30.7                          | 30.3   | 31.1                          | 30.8   |
| Average LOS Efficiency ( achieving improvement during rehab stay)                         | 2.23                          | 2.2    | 2.27                          | 2.27   |
| % DC to Community   | 63%                           | 69%    | 67%                           | 70%    |
|   |                               |        | URRC better than national     |        |
|   |                               |        | URRC better than prior year   |        |

### Result

Stroke patients admitted to URRC have a higher intensity of care or acuity than national benchmarks and are more disabled (lower admission FIM score). Despite a more difficult patient mix, URRC was able to achieve a higher average gain in independence for our stroke patients. In 2018, URRC improved their discharge efficiency and returned more patients to the community compared to the prior year.

# COMMUNITY CONNECTIONS:

## EDUCATION AND FUNDRAISING FOR IMPROVEMENTS IN STROKE CARE

*Upstate Stroke team at the National Stroke Assoc Comeback Trail Walk/Run! The National Stroke Association's Comeback Trail is a national event celebrating the physical, mental, and spiritual journey of stroke recovery. This annual event helps to raise funds for The National Stroke Association.*



*What a great night to strike out stroke with your #Upstateroketeam*



*Members of the Upstate Stroke Team connected with thousands of New Yorkers at the Great New York State Fair, exhibiting for three days in the Science and Technology Building.*



*Stroke at Womens Health and Fitness Day right near the Farmers Market.*

*Many thanks to grateful patient Patty Jowett, with the support of Pine Grove Health & Country Club, for the fun Boot Camp Workout fundraiser held during Stoke Awareness Month! 100 percent of the \$1,000 raised will support patients and programming at the Upstate Stroke Center.*





*The Upstate Foundation was honored to again sponsor the ceremony for the Daisy Team Award – recognizing a nursing team that has provided extraordinary patient care. Congratulations to Upstate Medical University's 2018 Daisy Team Award winner: Neurology ICU, unit 9F, Upstate Stroke Center.*

## OUR STROKE TEAM ON SOCIAL MEDIA:



*Being part of the stroke team is more than just being in a group of coworkers. We are a tightly knit network of caregivers that not only provide top notch care for our patients, but also support each other at all times- at work and beyond. The bonds between us, and the support we lend to each other through all the ups and downs, help us to provide consistent, compassionate expert care for our patients.*

*Taryn, MSN, RN, SCR, CNRN, NVRN-BC  
Jessica, BSN, RN, SCR, CNRN  
Danielle, MSN, RN, SCR*



*Ninth annual Strike out Stroke bowling event to benefit the Upstate Stroke Fund to support patient and family education, direct patient care needs and raising community awareness was a success.*

*"The best part of being a neuroscience nurse is being able to use my patience, knowledge and understanding to help heal the mind, body and soul the patients and families that we serve"- Brittany, RN Neuroscience ICU*



*East Syracuse Minoa Central School District and Fremont Elementary welcomed Liz Keesler, Stroke Outreach Coordinator, into their classroom to teach their third, fourth and fifth graders about stroke awareness and stroke prevention! #AskForTheExperts #StrokeHero #ThinkFAST*

*"I am proud to be an Upstate Neuroscience RN because every day I have the opportunity to work with an extraordinary inter-professional team dedicated to providing the best possible quality care to our patients."- Mary Catherine MSN, RN, CNRN, SCR Neuroscience Advanced Practice Resource Nurse*



# UPSTATE

COMPREHENSIVE STROKE CENTER

750 East Adams Street  
Syracuse, NY 13210



**DESIGNATED  
STROKE CENTER**

New York State Department of Health