Dear Central New York Community,

The COVID-19 pandemic has brought the world to its knees. It seems like a distant past, being able to gather and celebrate with people you love. We are at war with an enemy we cannot see. In addition to the many lives lost, many more have had to suffer because of transient loss of access to critical health services during the surge of the pandemic, including patients suffering from stroke who chose not to go to the hospital for fear of being infected by SARS-CoV-2 virus. In addition, we experienced significant challenges in delivering rapid treatment for stroke due to the additional time needed to don the personal protective equipment (PPE) before interacting with the patient. Patients in the hospital were unable to see their loved ones due to the visitation restriction necessary to protect the sick and health care workers. In one instant, a new normal emerged, with the need for social distancing, the need for masks in public, and the need to limit the personal interaction that human relationships and communication are built upon.

Upstate was at the forefront of this unprecedented response to the pandemic. Some of our colleagues volunteered to work in New York City and surrounding regions to give a helping hand. Very early on, we instituted changes to allow continued acute care services for stroke intervention, including changing our provider schedule so that we could increase our capacity in the event of a surge, increased use of telemedicine, and changing our emergency protocol to incorporate PPE donning and doffing, isolating suspected and confirmed COVID-19 patients.

As the largest neuroscience team in the region, I would like to assure our community that the Upstate Comprehensive Stroke Center is and will remain ready and prepared to care for our patients, and to deliver the highest quality, the most consistent and safest emergency and acute care intervention in stroke. Despite significant challenges, we were able to maintain 100% treatment of Alteplase (IV tPA) to patients within 60 minutes from their arrival at the emergency room, with more than 75% of them within 45 minutes, and up to 50% within 30 minutes.

Our commitment to the region remains the same. We will strive to provide the highest level of care for stroke, regardless of whether you have COVID-19 or not. But we can only do this if you help us. Remember, think F-A-S-T* if you (or your loved one) is having a stroke!

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

Sincerely,

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

* Think FAST!
F- does the FACE droop?
A- is one arm weak or numb?
S- Is speech slurred or hard to understand?
T- it’s time to call 911, and ask for the experts, ask for Upstate.
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Stroke remains the leading cause of adult disability in the US. Upstate University Hospital is committed to reducing that burden by expertly treating, caring for and educating our region on the complexities of stroke. Upstate began this pledge in 2006 as the first dedicated stroke center. In 2015, Upstate was the first to achieve Comprehensive Stroke Center Status, the highest level. Our hospital was also the first to establish a dedicated Neuroscience ICU and have maintained it for almost 50 years.

Our stroke center offers training for physicians, nurse practitioners and physician assistants in all areas of neuroscience: neuro critical care, neurosurgery and stroke.

Our nurses are the most specialty certified in the region, with many earning national certification in Neuroscience Nursing and/or Stroke Nursing.

As an academic medical center, we can offer our patients clinical trials, which can help determine if a medication or treatment is safe and effective. This allows Upstate to offer the latest treatment options for our patients. Throughout this past year, we have continued to represent Upstate by presenting our research work and quality improvement projects at various professional conferences including American Academy of Neurology, Northeast Cerebrovascular Consortium and International Stroke Conference.

Types of Strokes Treated in 2019

- **68%** Ischemic Stroke
- **14%** Intracerebral Hemorrhage
- **5%** Subarachnoid Hemorrhage
- **12%** Transient Ischemic Attack
**We do it with Purpose.**
Each minute that ticks by from the moment the patient enters our doors is vital to saving brain cells and restoring the patient’s ability during an acute stroke event. The American Heart/Stroke Association have shortened the expected treatment times for award levels in 2019 pushing stroke centers to move faster and faster. Upstate has responded to this expectation quickly with almost half of our patients treated with Alteplase (IV tPA) last year receiving it in 30 minutes or less. Correspondingly, our median door to Alteplase (IV tPA) treatment time has remained consistently at or under 36 minutes for the last consecutive four years.

**We value Performance.**
Upstate continues to earn the highest Gold Plus award level which recognizes performance of 24 consecutive months of all the Stroke Measures for excellence in Stroke Care (i.e. early anti-thrombotics, statins at discharge, anticoagulation, patient education, VTE prophylaxis).

**We are Prepared.**
Our Upstate Stroke Program has seen a consistent increase in patient volume over the last five years. We are prepared to take care of all types of stroke from those with early warning signs to the most complex. In the last year, we have stepped up to the challenge of an increase in the number of patients needing specialized care for hemorrhagic or bleeding strokes. This care includes cutting-edge surgical procedures and comprehensive medical management.

**Total Patients through the Upstate Comprehensive Stroke Center**

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<td>1489</td>
<td>1650</td>
<td>1840</td>
<td>1917</td>
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**Patients Diagnosed with Stroke**

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<tr>
<th>Year</th>
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<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<tr>
<td>#</td>
<td>819</td>
<td>851</td>
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<td>969</td>
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**Stroke Treatments**

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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<tr>
<td>#</td>
<td>36</td>
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<td>#</td>
<td>84</td>
<td>89</td>
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<td>108</td>
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STROKE UPDATE:
FROM THE STROKE PROGRAM MANAGER
JOSH ONYAN, BSN, RN, SCRN

Stroke care over the past twelve months was not initially supposed to have any big changes in practice. Alteplase (clot-busting medication) and mechanical endovascular reperfusion (thrombectomy) remained the approved treatment methods for someone having an acute stroke. As the COVID-19 pandemic began the volumes of stroke patients seeking care decreased. People with “less severe” strokes were remaining home out of fear of contracting the virus by going to the hospital. We at Upstate had to assure our community that we had modified our processes in order to safely care for stroke patients and remained a resource for our region.

In 2019, Upstate provided 108 doses of Alteplase. The Upstate Stroke Program also provided care for almost 100 “drip and ship” patients. These are patients initially evaluated for ischemic stroke at one of our regional hospitals, given Alteplase there and then transported to Upstate for more advanced imaging and neurological services. This method is done because the overall goal of administering Alteplase is to do it as quickly as possible, with a target set forth by the American Heart/Stroke Association of administration in less than 30 minutes of hospital arrival. Last year in the Upstate Emergency Department, the median Alteplase treatment time was 34 minutes. Over 90% of our Alteplase patients received their dose in under 45 minutes, and over 40% of them received their dose in under 30 minutes. This is a great accomplishment which allows Upstate Comprehensive Stroke Center to receive treatment recognition through the American Heart/Stroke Association.

In addition to the use of Alteplase for stroke, a mechanical endovascular reperfusion procedure (thrombolysis-clot retrieval) remains the preferred treatment method for LVO (large vessel occlusion) stroke if noted on CT angiography. Upstate treated 86 patients last year using this method. Of these patients, over half of them came from a regional hospital for advanced comprehensive stroke care.
Through the use of technology and collaboration, the Upstate Telestroke network has expanded to include 11 regional hospitals. The majority of the partnering hospitals are geographically located at least 60 minutes away. Through the use of videoconferencing equipment, Upstate’s board certified stroke physicians are granted instant access to the patients and providers at our regional hospitals. Using interactive computer software, and a secure internet network, CT images can be transferred and viewed in real-time. This allows the Upstate stroke providers to virtually assess the remote patient and formulate a collaborative treatment plan.

Regional collaboration remains possible through several quality committees led by the Upstate Comprehensive Stroke Center. The Regional Stroke Advisory Council (RSTAC) consists of representatives from EMS and hospital personnel through our five-county region. Our meetings allow an open forum to discuss regional barriers as well as regional successes. It takes a village to properly care for these stroke patients and through the RSTAC, we all ensure that each patient, despite geographical location, has the best access to the Upstate Stroke Team.

Upstate has remained safe and strong for our community. We look forward to continued collaboration to enhance stroke care as a region.

Thank you all for remaining strong with us, for the patients that we serve!

Members of the Upstate Telestroke Team include
Top, L-R: Karen Albright, DO, PhD, MPH; Julius Gene Latorre, MD, MPH, Medical Director of Neurology-Stroke Service; Hesham Masoud, MD
Bottom, L-R: Fadar Otite, MD, MS, Elena Schmidt, MD
Certified by international accreditors, DNV Healthcare, Inc., our Upstate Comprehensive Stroke Center has the proven resources, infrastructure, processes and highly trained staff in place to provide the very best in stroke care, including:

- Multidisciplinary team approach covering all the patient’s needs including neurologists, neurosurgeons, interventional radiologists, nurses, pharmacists, rehabilitation therapists, discharge planners, nutritionists, and social workers
- Region’s largest Neuroscience Critical Care ICU with teams committed to diagnosing and treating the most complex requirements of all types of stroke and other neurological illnesses as well as dedicated neuroscience beds for non-ICU patients
- Specialized Neuroscience Nursing staff with many nationally Certified Registered Nurses earning certifications in Neuroscience Nursing (CNRN), Critical Care Nursing (CCRN), Stroke Nursing (SCRN) and Neurovascular Board Certification (NVRN-BC)
- Advanced imaging capabilities with the latest computed tomography (CT) and magnetic resonance imaging (MRI) scanners which allow physicians to make quick treatment decisions extending the window for some patients up to 24 hours since last seen normal or well
- Frequent use of Alteplase (clot-busting medication) for ischemic stroke treatment
- Activation of a specialized Neurovascular Team to perform Thrombectomy (clot retrieval) procedures for qualified patients
- Neurosurgery or Endovascular specialists who perform state of the art procedures for repair of aneurysms and other causes of hemorrhagic strokes (brain bleeds)
- Telesstroke/Telemedicine capabilities with virtual links to 11 regional hospital Emergency Departments to assist local clinicians with stroke treatment decisions
- Participation in multiple clinical research trials improve and advance stroke care
- Post-discharge care including a specialized Stroke Clinic with advance practice nurses and neurologists who focus on teaching patients and families about reducing stroke risk and linking patients to needed community therapies and resources

**Median treatment time in minutes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Median Treatment Time</th>
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</thead>
<tbody>
<tr>
<td>2014</td>
<td>48</td>
</tr>
<tr>
<td>2015</td>
<td>41</td>
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<td>2016</td>
<td>34</td>
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<td>2017</td>
<td>36</td>
</tr>
<tr>
<td>2018</td>
<td>36</td>
</tr>
<tr>
<td>2019</td>
<td>34</td>
</tr>
</tbody>
</table>
NAUSEATED AND DIZZY AT 4 A.M.

The patient
Debra Born, 25, is a new graduate of Utica College with a public relations degree. She lives north of Rome.

Symptoms
Born awakened feeling off about 4 a.m. on Aug. 6, 2019. She was nauseous and extremely dizzy. “I thought I was just exhausted and figured that was why I could not move. I kept trying to say that I was fine, but I had a hard time talking.”

Her father, Frank Born, says it’s fortunate she couldn’t speak. “She was trying to tell us, ‘I’m OK. Just let me sleep.’ And we might have.”

Instead, he dialed 911.

Care
An ambulance brought Debra Born to the hospital closest to her home, Rome Memorial Hospital. The physician in the emergency department, via a teleconference with stroke specialists at Upstate, arranged for a helicopter to fly Born to Upstate University Hospital in Syracuse.

She had a blood clot in her brain that was swiftly removed by Hesham Masoud, MD, an interventional neurologist with specialization in vascular neurology and endovascular surgical neuroradiology. Eighty percent of strokes are caused by clots, when an artery that feeds the brain becomes blocked. The other main type of stroke happens when a vessel bursts and bleeds. The treatment options are different for each type of stroke, and care is tailored to each patient based on the size and location of the clot or bleed, and the patient’s condition and medical history.

Cause
Masoud explains that Born’s stroke developed from an arterial dissection, a small tear in the lining of an artery at the base of her neck. This likely happened when the artery rubbed against her vertebrae, perhaps when she lifted something heavy or twisted in a certain way during physical activity. A clot developed, which caused an ischemic stroke when it obstructed blood flow to the brain.

Recovery
The clot retrieval is performed in an operating suite, using micro catheters (tubes) and X-ray guidance. Born was feeling back to normal within hours of the procedure. When Masoud came to her bedside, she remembers, “he was thrilled to see how well I was doing.”

She was hospitalized overnight and able to go home the next day, with no lingering deficits from her stroke. Born says she appreciates the prayers of loved ones. “The skill of Dr. Masoud and my whole stroke team was impressive, and I am grateful to them for doing their best to ensure that I walked away alive and well.”
The Upstate Regional Rehabilitation Centers offer individuals who have experienced stroke cutting edge care and best practice delivered by exceptionally trained and dedicated professionals.

The Regional Rehabilitation Center staff provide care through a team process across the continuum of care within Upstate University and Community Hospitals. Members of the team consist of staff specializing in stroke care, including physicians, nurses, physical therapists, occupational therapists, speech and language pathologists, psychologists and counselors, social workers, and case managers.

The staff demonstrate their commitment to individuals with stroke through participation in the Center’s stroke specific departmental training and pursuing specialty training which in some cases includes the Certified Stroke Rehabilitation Specialist credential. Nearly 50 of our team have completed training as Certified Brain Injury Specialists and Neurologic Certified Specialist. Three of our Physical Medicine & Rehabilitation physicians are certified in the subspecialty of Brain Injury Medicine, with a physician dedicated to outpatient and longer term care needs.

Comprehensive Stroke care takes place in the Acute care hospital, the Inpatient Rehabilitation Facility (IRF) and across Outpatient locations located in many convenient and accessible locations. Our quality services surpass others located in our region.

### Upstate Regional Rehabilitation Center (URRC) Quality Dashboard

**June 2019 thru June 2020**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>URRC (2N &amp; 4E combined)</th>
<th>Region (IRFs* in Eastern US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Mix Index (Acuity)</td>
<td>1.68</td>
<td>1.59</td>
</tr>
<tr>
<td>Discharge to Community</td>
<td>69 %</td>
<td>66 %</td>
</tr>
<tr>
<td>Self-Care scoring Gain Ratio</td>
<td>1.18</td>
<td>0.94</td>
</tr>
<tr>
<td>Mobility scoring Gain Ratio</td>
<td>1.11</td>
<td>0.99</td>
</tr>
<tr>
<td>Self-Care Discharge: Patients that met the Target</td>
<td>67 %</td>
<td>48 %</td>
</tr>
<tr>
<td>Mobility Discharge: Patients that met the Target</td>
<td>57 %</td>
<td>49 %</td>
</tr>
</tbody>
</table>

*Inpatient Rehabilitation Facilities

(Higher Scores are Better Scores)
A delivery of hosta plants and the fast action of friends likely saved David “Chuck” Olley’s life. On June 11 in Natural Bridge, NY, Olley, 63, was home alone doing paperwork when Carol Carr delivered pots of hostas to sell at his greenhouse, which is adjacent to his house. Jamie Faury, a helper, was in the greenhouse watering plants. She greeted Carr and called for Olley.

The three were walking through the greenhouse when Olley said he needed to lie down. That worried his friends. Then, he fumbled and slurred his words. Carr and Faury recognized Olley’s garbled speech as one of the “FAST” stroke warning signs (Face, Arm, Speech, Time). Deflecting his friends’ concern, Olley struggled to say, “It’s not like I’m dying,” when the left side of his face drooped. Faury and Carr knew to call 911, despite his protests.

The 911 dispatcher did a stroke assessment over the phone with Faury: “Ask him to smile.” Olley couldn’t. “Ask him to lift his left arm.” Olley couldn’t.

A day earlier, Olley had gotten results from a brain scan that showed he had carotid artery occlusions. This meant that the two arteries in his neck were clogged by plaque, which restricted the blood flow and oxygen to his brain. It is a condition that often has no symptoms and can cause strokes.

Several minutes after the 911 call, a first responder from Natural Bridge arrived to evaluate Olley for stroke. The Carthage Area Rescue Squad got there approximately 15 minutes after the 911 call. Speed was crucial. Damage to Olley’s brain could be minimized if he could get to a stroke center quickly.

The ambulance crew raced Olley to the Carthage Fire Department where they met a Mercy Flight helicopter. In six minutes, Olley was reevaluated, moved from ambulance to helicopter, and enroute to the Upstate Comprehensive Stroke Center in Syracuse. In 39 minutes, pilot Joe Carr landed the helicopter on the roof of Upstate University Hospital. The Upstate stroke team was waiting on the helipad. They evaluated Olley while the helicopter was still running, saving five minutes. He was taken immediately for a CT scan, and Mercy Flight paramedics Brian Crolius and Connor Miller gave a full report to the team, which included neurologist Gene Latorre, MD, MPH, and William Santiago, MD, of emergency medicine.

The CT scan confirmed an ischemic stroke, a common type caused by a blood clot which blocks blood flow to the brain. The plaque in Olley’s neck vessels caused the clot. Because he got to Upstate within three hours of the onset of the stroke, Olley was able to receive Alteplase (IV tPA) that dissolves blood clots. To remove the clot, interventional radiologist, Dr. Swarnkar performed a thrombectomy. He inserted a tiny tube into the base of Olley’s skull and threaded it through the blood vessels to the site of the clot. Then, he guided a metal thread with a basket-shaped clamp through the tube, and was able to grab and remove the blood clot.

Olley was in the intensive care unit for two days. Three days after the stroke, he left the hospital just in time to attend his nephew’s wedding in Carthage.

A couple of weeks after the stroke Olley was back at work in his greenhouse and at several farmers’ markets. (On Saturday mornings, he can be found at the Harrisville market.) Six weeks after the stroke, Olley finds that he tires easily and has some difficulty multiplying numbers in his head. Other than that, he is the same robust man he was before the stroke. Carol and Jamie, his lifesaving friends, keep a close eye on Olley while they sell homemade fudge and handmade jewelry at the market.
The patient
Leonard “Larry” Johnson, 67, of Syracuse, is a retired truck driver and construction worker.

Symptoms
He wasn’t feeling good the whole week. That Friday, Nov. 8, 2019, watching ESPN on television, Johnson hit the bed with his right arm. His fiancée, Karla Rosen, thought he was excited about whatever game he was watching. Then he tapped her. That got her attention. “I can’t use my arm, I can’t use my arm,” he muttered. “I feel funny.”

Rosen remembers Johnson’s lips weren’t working right, his words were slurred, and his left side was weakened.

She called 911.

Because Johnson has congestive heart failure, the couple is used to making trips to the hospital emergency department. “The doctor asked me, ‘How did you know to act so quickly?’ He said that’s what saved his life, why he was able to bounce back so quickly,” Rosen says. “I thought this had something to do with his heart. I didn’t think of stroke until we got to the hospital.”

Care
Johnson underwent a computed tomography scan that revealed a clot on the right side of his brain. Neurologist Hesham Masoud, MD, ordered a thrombolytic medication called tissue plasminogen activator, or tPA, which dissolves clots when administered in the early stages of a stroke.

Cause
A person with congestive heart failure has an increased risk of stroke. Because the heart does not pump with optimal force when it’s in congestive heart failure, blood may stagnate in one of the chambers of the heart. This can create circumstances for a clot to form, which may eventually travel to the brain and cause a stroke, Masoud explains.

In addition, people with heart failure can also have an irregular heart rhythm called atrial fibrillation that increases the risk for stroke.

Recovery
Johnson went home after three days at Upstate University Hospital. Rosen says he’s not 100 percent back to himself, yet. “He’s got to go to physical therapy,” she says. “We were really blessed that he was able to bounce back.”

‘I CAN’T USE MY ARM’

Stroke survivor Leonard “Larry” Johnson, 67, lost the use of his arm as he experienced a stroke.
Clinical Training
In addition to the only Simulation center of its kind in central NY, Upstate Medical Center physician trainees also work closely with dedicated faculty, utilizing cutting-edge technology in the diagnosis and treatment of cerebrovascular disease, to teach residents the care of stroke patients within a patient-centric care model. Our adult Neurology residency and Vascular Neurology fellowship training programs offer young doctors in training unique educational opportunities to gain expertise in the delivery of stroke therapy.

As of 2019 Upstate has been proud to offer a training pathway tailored for Neurology residents and fellows interested in pursuing a career in Vascular Neurology and Stroke Neurointervention. This pathway establishes a clear route for Neurology physicians to obtain expertise in the comprehensive care of stroke patients, to include the delivery of both medical (IV thrombolysis, secondary prevention, diagnosis and prevention, neurorehabilitation) and endovascular therapies of acute ischemic stroke (e.g intraarterial thrombolysis/spasmolysis, angioplasty and stenting, mechanical thrombectomy).

Early Specialization in Stroke Neurointervention/Interventional Stroke Pathway (ESNI)
After completing medical school, students will perform a residency in their chosen field. Our Neurology residency program pathway is structured to provide additional subspecialty training in all aspects of Stroke management including the delivery of intravenous thrombolytics and the endovascular treatment of ischemic cerebrovascular disease. Through dedicated rotations managing patients on the inpatient Stroke and NeuroICU services, while also covering the Neuroangiography suite, residents gain the necessary clinical experience and training in all technical aspects necessary for proficiency in diagnostic cerebral angiography and endovascular treatment of stroke, including complex procedures such as use of stent retriever.

Accredited Vascular Neurology Fellowship with additional Stroke Neurointervention training
Our post residency combined 2-year Vascular Neurology and Stroke Neurointervention fellowship training program expands on direct patient care with diagnosis and treatment of stroke and emergent endovascular therapies. Fellows serve as Clinical Instructors (in the Sr. yr), with opportunities to practice as attending on the Stroke and Telestroke service lines. The combined program allows clinical fellows in the ACGME accredited (Accreditation Council for Graduate Medical Education) Vascular Neurology program to extend training with a non-ACGME year and gain additional experience for proficiency in diagnostic cerebral angiography and interventional stroke procedures.

A fellow is a board-eligible physician who has completed their residency and elects to complete further training in a specialty. Training in a fellowship is optional and is generally not a requirement to practice medicine, but is a necessary training for credentialing in subspecialties such as Vascular Neurology.
The Upstate Department of Radiology recently made two large investments in both CT and MRI equipment to improve the quality and speed of a comprehensive diagnosis of stroke for our patients. The Upstate Comprehensive Stroke Team is grateful to have radiology as an important member of the multidisciplinary team.

“In stroke care we use the CT and MRI scanners,” according to Daniel Gwilt, Assistant Director of Radiology. “CT is used for a quick diagnosis out of the ER when a patient first arrives, while the MRI provides a more detailed picture of the brain to see small areas of stroke and mapping to see flow of blood, vessels and tissues.”

GE Revolution CT
Upstate University Hospital is the first facility in the region to invest in this type of CT scanner. “With a 16 cm detector it allows us to capture a higher quality image of the whole brain in one revolution,” Gwilt said. This means the patient is in and out faster and the team has a larger area of coverage with a higher resolution image to be able to see smaller areas of stroke across the entire brain.

CT Technologist and Stroke team member Chrissy Shaw, RT (T), CT works quickly to correctly position and explain to the patient the procedure in our new GE scanner. Shaw has greater than 20 years of experience with CT technology at Upstate.

Enhanced CT perfusion imaging allows for quick treatment decision-making for stroke patients. The above image is a CT fusion image processed through the iSchemaView product RAPID-AI. This software is utilized for all suspected stroke patients at Upstate.
“This 3 tesla MRI scanner has a higher image resolution than we had previously,” Gwilt said. In addition, this machine has dedicated advanced neuro software, specifically for the diagnosis and study of strokes and other brain conditions.

MRI is often used to make a final diagnosis of stroke and to be able to view deep brain structures. Brian Stewart, MRI technologist with 20 years experience is Board Certified in MRI and is a valuable resource for Upstate and our Stroke team.
INTRODUCING THE NEWEST MEMBERS OF OUR STROKE TEAM

The Upstate Brain & Spine Center provide the most progressive and comprehensive neurosurgical services in Central New York.

Our team of neurosurgeons combines professional expertise with advanced technology, offering a multidisciplinary approach and compassionate care.

Harish Babu, MD/PhD
Assistant Professor of Neurosurgery
Director, Minimally Invasive Neurosurgery

Dr. Babu brings experience in brain tumor neurosurgery along with skill and expertise for patients who have epilepsy.

He is fellowship trained in two neurosurgical sub-specialties and has authored several peer-reviewed publications, manuscripts and book chapters. He also is the recipient of many awards and grants.

Dr. Babu is a summa cum laude graduate of Charité Medical University, Berlin, Germany where he earned his MD and PhD. He completed a residency at Cedars-Sinai Medical Center in Los Angeles. His fellowship in minimally invasive neurosurgery was completed in Sydney, Australia, followed by a fellowship in epilepsy/functional neurosurgery at the University of Toronto. His clinical research and training were done at Charité Medical University, Stanford University and Cedars-Sinai Medical Center.
Raisa Zhovklaya, BSN, RN
Upstate Stroke Program Outreach Coordinator
Raisa Zhovklaya, BSN, RN has been named the new Upstate Stroke Program Outreach Coordinator. Ms. Zhovklaya brings a strong nursing background in stroke and neurosciences patient care, which began at Upstate. Along with her previous experience, Raisa was able to expand her stroke knowledge by volunteering at a local EMS agency and her most recent clinical role in the Neuro-IR Department at the Neuro-IR department at a local Comprehensive Center.

As the Comprehensive Stroke Program has grown exponentially since her career began at Upstate, she’s excited to return to build strong relationships with partnering agencies and continue to work collaboratively with our the team to improve patient outcomes.

Timothy Beutler, MD
Assistant Professor of Neurosurgery
Director, Critical Care Neurosurgery
Dr. Beutler is the first neurosurgeon dedicated to critical care neurosurgery at Upstate and is director of the program. The important addition of this field helps patients who need intensive care for neurological emergencies such as brain and spine injuries, strokes, brain hemorrhages, infections of the brain and spine, and aneurysms. In addition, Dr. Beutler will perform general neurosurgery.

His primary clinical interests are in traumatic brain injury and neuro critical care. Secondary interests include neurological quality improvement. He has authored numerous papers, book chapters and abstracts.

Dr. Beutler received his MD from Case Western University. He completed a neurological surgery residency and a fellowship in neuro critical care at Upstate Medical University.

Ali Hazama, MD
Assistant Professor of Neurosurgery
Director, Minimally Invasive Spine Surgery
Dr. Hazama, director of neurosurgery at the Upstate Community Hospital location of the Upstate Brain and Spine Center, has a specialty focus on minimally invasive spine surgery. One of the few surgeons in the region who can perform these spine surgeries, his minimally invasive approach offers potential treatment options to correct common spine problems.

He has taken leadership roles at Upstate on the admissions committee and as chief resident of neurosurgery. A winner of several awards who demonstrates compassion in treating patients, he is also the author of numerous publications, book chapters and abstracts.

Dr. Hazama received his MD degree from the University of Chicago Medical School and did his residency in neurosurgery at Upstate Medical University.
The patient
Suzanne Sachetti, 65, of Watertown is retired as an information technology director.

Symptoms
The Sachettis have a lawn tractor. Mark Sachetti remembers that on May 19, 2019, his wife came into the garage saying she was going to mow. She went into the house to use the bathroom first. Twenty minutes later, she still had not returned. He went inside to check on her. Suzanne Sachetti told her husband she had developed a blinding headache, become dizzy and started feeling strange — and now she saw two of him.

“Around that time, there were a lot of stroke commercials on TV,” Mark Sachetti recalls. He recognized the signs of a possible stroke, and he knew what to do. His wife just wanted to rest.

He insisted they get to a hospital. She had trouble walking, but he helped her to the car. They drove to nearby Samaritan Medical Center. “I think she could be having a stroke," he said as they entered the emergency department.

Care
After a computed tomography (CT) scan, Sachetti was put in a room with a telemedicine connection to the Upstate Comprehensive Stroke Center. Neurologist Karen Albright, DO, PhD, appeared on the screen. “Dr. Albright took control," recalls Mark Sachetti. To him, his wife looked fine. Albright was not convinced.

After examining Suzanne Sachetti, looking at the scans and talking with the emergency doctor, Albright told the Sachettis she believed Suzanne Sachetti was having an ischemic stroke, caused by a clot. She told them about tissue plasminogen activator, or tPA, a clot-busting medication that can be effective if given early in the course of a stroke. It can also cause bleeding. That was a risk the Sachettis were willing to take.

Soon after she received the medication, Sachetti was transported by ambulance to Upstate. She stayed in a room in the neurological intensive care unit. “All of those nurses and all of those doctors, they treated her very well, and they knew what they were doing," Mark Sachetti recalls. He brought his wife home three days later.

Cause
Both of Sachetti’s vertebral arteries — the major arteries in her neck — were blocked. Some plaque broke off in one of them and traveled through the bloodstream until it blocked an artery in the cerebellum. That is the section of the brain that controls speech and balance. Strokes in this area can be devastating.

Mark Sachetti says he realizes connecting with Albright so quickly for treatment made a big difference in his wife’s recovery.

Recovery
Sachetti has some cognitive and short-term memory issues, her husband says, but physical therapy has helped improve her dizziness and balance.
Our 2019 events season was busy! While we may need to stay apart for now, we look forward to returning to these outreach events soon.

**Strike Out Stroke to kick off Stroke Month**
Our tenth annual Strike out Stroke bowling event to benefit the Upstate Stroke Fund raises funds for patient and family education, direct patient care needs and community awareness.

**American Heart Association Heart Walk**
This event draws thousands each year. Walkers can "warm up" with a walk through our inflatable brain to learn more about strokes.

**Strike Out Stroke with Syracuse Mets**
We were happy to deliver a member of our team to centerfield to throw out the first pitch and provide community education throughout the game.

**First Annual Stroke Camp**
Our team invited stroke survivors and caregivers to unwind for a weekend at the Greek Peak resort.

**New York State Fair**
The Upstate Comprehensive Stroke Center team volunteers for several days at the Great New York State Fair each year to educate thousands in how to recognize the signs of stroke and how their health conditions increase the risk of stroke.

**Women's Health and Fitness Day**
Members of our team were happy to provide education and giveaways as part of this fun community event held in conjunction with the downtown Syracuse Farmer's Market.