

Stroke Center Outcomes Report 2018



**CENTRACARE
Neurosciences**



Welcome

In 2017, CentraCare Neurosciences Stroke Center at the St. Cloud Hospital continued to see growth in our stroke volumes. We feel an increasing responsibility to stroke patients in Central Minnesota, and we have continued to evaluate our program to improve the quality of care we provide.

Telestroke is becoming the standard of care for acute stroke patients. Over the last four years the number of telestroke locations has grown as well as the number of telestroke consults from each site. We have started to benchmark our 15 sites to encourage improvement across our network.

The remarkable results of our telestroke sites triggered an internal improvement process at the St. Cloud Hospital. In 2016, we introduced telestroke within our own emergency room. With the advent of this process, we saw a reduction in our door-to-needle times by 15 minutes in 2017. This has placed us in the highest achievement category of American Heart Association/American Stroke Association Get With The Guidelines® awards.

We also have achieved what used to be unimaginable — patients from outside emergency rooms arriving and having their procedures started in our operating room in less than two hours. More acute stroke patients are emergently evaluated and flown to our hospital; these patients bypass the emergency room and are brought directly into the operating room for thrombectomy. This streamlined treatment process gives our patients the best chance for survival.

To accommodate our program's growth, we have expanded our stroke team. In 2017, we started an endovascular surgical neuroradiology fellowship program at St. Cloud Hospital. Vikram Jadhav, MBBS, PhD, will graduate this summer from our program. We also added Erica Klimmek, APRN, CNP, AGNP, to our nurse practitioner team, which cares for patients during their inpatient, post-stroke recovery period.

We are excited to share with you our growth, metrics and outcomes in this report and look forward to serving the patients of Central Minnesota during the next year.

Sincerely,

A handwritten signature in black ink that reads "M. Fareed Suri".

M. Fareed Suri, MBBS
Stroke Center Medical Director



Our Mission

CentraCare Neurosciences Stroke Center at St. Cloud Hospital offers comprehensive, interdisciplinary, patient and family-centered stroke care that encompasses public awareness and prevention education, rapid triage, diagnosis, treatment and rehabilitation.

Our patients benefit from:

- Nationally recognized care
- Certified nurses, fellowship-trained doctors and excellent support staff
- Quality indicators which meet or exceed national benchmarks
- Multidisciplinary team
- State-of-the-art technology and surgical approaches
- High-volume center

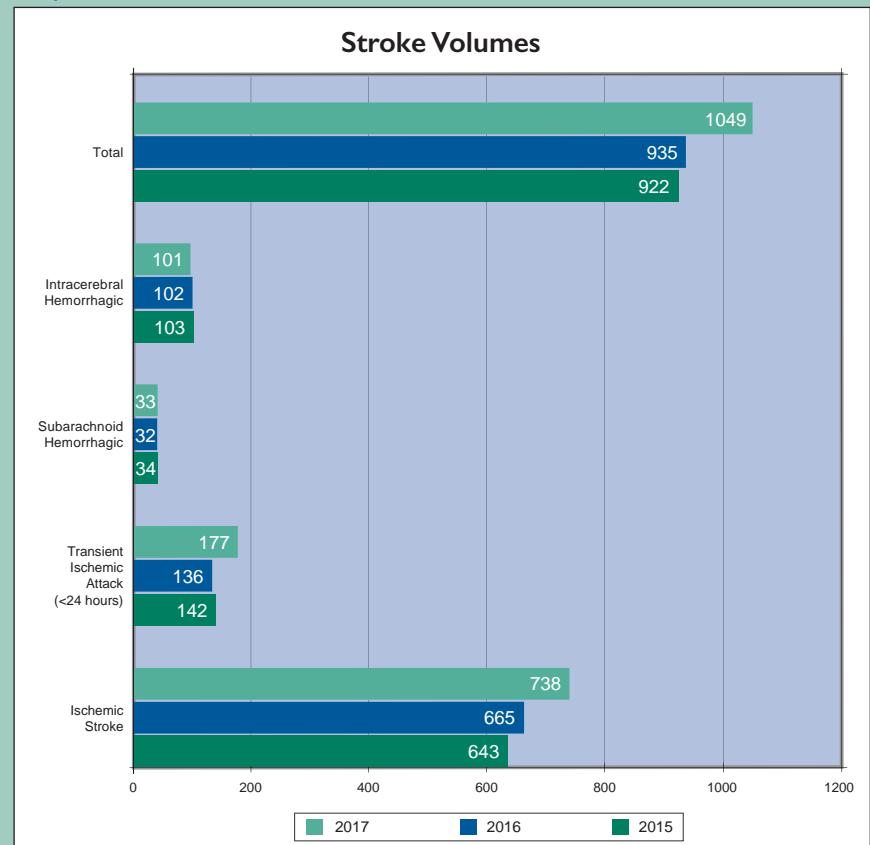


St. Cloud Hospital

St. Cloud Hospital has a rich tradition of caring for the people of Minnesota. Since being founded by the Sisters of the Order of St. Benedict in 1886, we have grown from a small, community hospital to a comprehensive, high-quality regional medical center.

St. Cloud Hospital maintains a clear focus on quality. Our skilled professionals strive to deliver outstanding clinical outcomes and a superior patient experience. While numerous national awards affirm our quality, compassionate care remains our hallmark tradition.

Graph I



At 50, LeAnn was athletic, didn't smoke or have any stroke risk factors. In August 2017, she suffered a massive brain bleed and spent two months in the hospital, followed by six months at an inpatient rehabilitation facility. Today, LeAnn fully affirms, "Trust in God — miracles can happen."



Never give up

On a day like any other, Walter Heim of Big Lake, had put in a full day at work and was excited to go home and see his wife, LeAnn. He was startled to see a police officer behind him and pulled over to let him pass. But the real surprise came was when he arrived at home to see the police officer in his driveway.

LeAnn had been at home and while talking to colleagues on the phone she mentioned she had a headache and was lying on the floor. "After that, everything went black," LeAnn said. Thankfully, employees at her office called 911.

When Walter and the police officer found LeAnn, she was laying on the kitchen floor and appeared to be having a seizure. An ambulance arrived and took LeAnn to St. Cloud Hospital.

"When I got to the emergency room, everyone kept saying, 'Your wife is very sick,' and I didn't know what that meant," Walter said. Walter came to learn that LeAnn had experienced a subarachnoid hemorrhage, a type of stroke that is more rare and devastating than a normal stroke.

In addition to the stroke, LeAnn's brain had swelled and doctors needed to remove a bone flap from her head to reduce pressure. Placed into a medically induced coma, LeAnn's condition was dire and her future ominous.

Ten years earlier, LeAnn and Walter had read about amazing medical stories. At that time, LeAnn had told him, "Whatever you do, don't let them stop — keep praying. Trust in God. Miracles can happen." Given his earlier conversation with LeAnn, Walter didn't waiver.

At one point in LeAnn's care, her family and care team came to a crossroads. They were contemplating additional procedures to prolong her life or end-of-life care. "Staff told me she was going to be in a nursing home the rest of her life, that she would probably get an infection and die an excruciating death," Walter said.

After a two-month hospital stay, LeAnn, still unable to move, was transferred to an inpatient rehab facility, closer to their home, where she has been for six months. Today, she's walking, talking and getting stronger every day. After going from a caregiver at work to being cared for, LeAnn is anxious to go home and get back to her job serving others.

"This accident really changed my life," LeAnn said. "I try to live in the moment and not rush to the next thing. I believe my experience was divine intervention. With God, all things are possible. I'm 50 and I survived a stroke. There will be a full recovery — I plan on it."

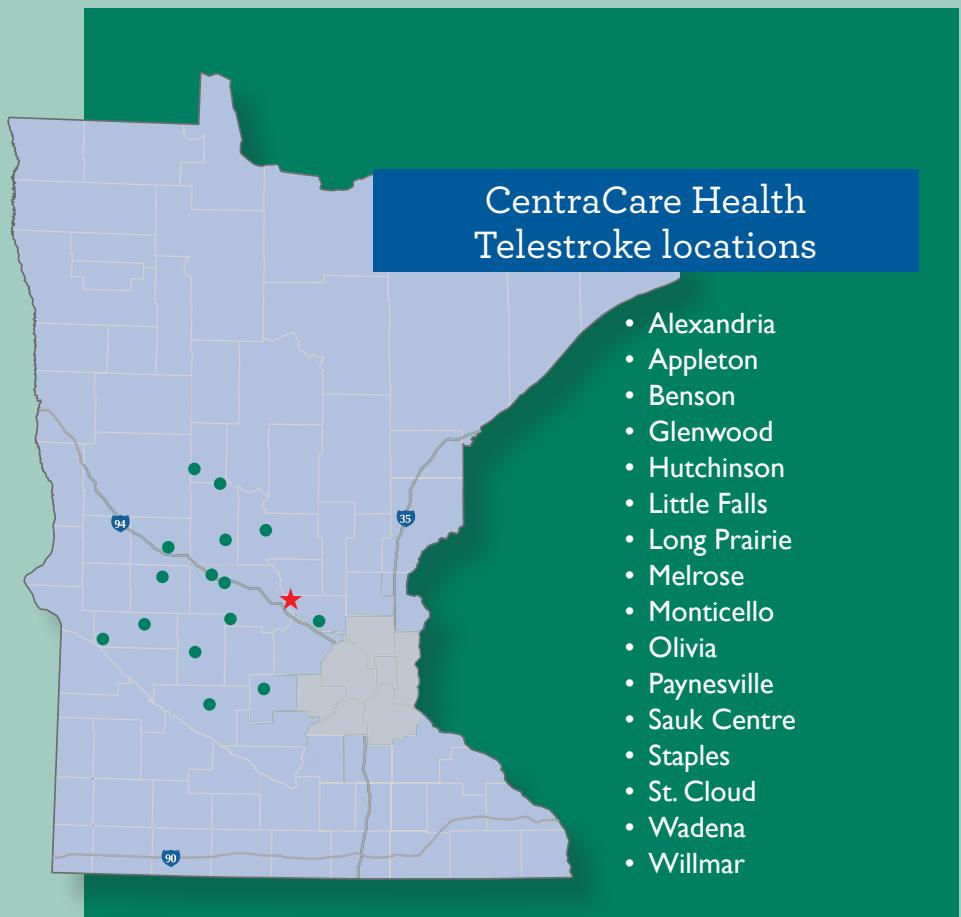
Telestroke in the Region

The CentraCare Neurosciences Stroke Center at St. Cloud Hospital provides regional telestroke services to help patients receive stroke treatment as quickly as possible and reduce the effects of stroke. Patients who access a facility that has telestroke are able to connect, in real time, with a stroke and vascular neurologist from the Stroke Center. Telestroke accelerates treatment decisions which improves patient outcomes. This partnership allows accurate and prompt diagnosis of stroke so that important treatment can begin quickly and patients can be transferred to St. Cloud for advanced stroke interventions, such as thrombectomies, if needed.

With stroke, every second matters. Interventions such as intravenous (IV) alteplase can quickly be administered to break up clots. IV alteplase is the only U.S. Food and Drug Administration-approved drug for the treatment of acute ischemic strokes. Numerous studies have demonstrated the clinical effectiveness of telestroke care. In a large controlled trial, stroke patient outcomes were better at hospitals with telestroke support than in hospitals without telestroke

support. This program is making a positive difference in how stroke care is provided to our local communities.

| St. Cloud Hospital Telestroke Data Rollup | 2017 | 2016 | 2015 |
|---|-----------|-----------|-----------|
| Number of requests for telestroke consult | 661 | 260 | 178 |
| Average response time (minutes) | 9.5 | 8 | 7 |
| Number of transfers to St. Cloud Hospital | 390 (59%) | 152 (61%) | 114 (72%) |
| Number of patients kept locally | 271 (41%) | 98 (39%) | 45 (28%) |



Graph 2



“The nursing staff was excellent and thoughtful. I found them to be knowledgeable and friendly.”

- patient



Highly Skilled and Trained Staff

Attaining a national certification in a nursing specialty is a professional accomplishment that provides opportunities for improved outcomes for specific patient populations. At CentraCare Neurosciences Stroke Center, many nurses have made a commitment to their practice, team members, unit and patients to achieve specialty certifications. The Certified Neuroscience Registered Nurse (CNRN) and the Stroke Certified Registered Nurse (SCRN) certifications, granted through the American Board of Neuroscience Nursing (ABNN), promote excellence and professionalism in the areas of competency, safety, performance improvement and core measure outcomes.

As a Magnet-designated hospital, the dedication to employing certified nurses raises awareness and promotes quality patient care based on specialized knowledge regarding stroke and neuroscience patients. Certification qualities and standards are incorporated into the hospital's core values which are practiced on a daily basis.

“As a CNRN, I am proud to tell my patients that I have studied neuroscience nursing extensively,” said Jenna Czech, BSN, RN, CNRN, SCRN, core charge nurse for the Neuroscience/Spine Unit at St. Cloud Hospital. “The knowledge I possess benefits and positively impacts the patients I serve. National certification is an accomplishment to be proud of and to promote to my colleagues. This shows my dedication to surpassing national standards and expectations.”

A Trio of Nurse Practitioners

The CentraCare Neurosciences Stroke Center is fortunate to have three highly qualified nurse practitioners (NPs) that are frequently referred to as pioneers in promoting the role of advanced practice providers.

Erica Klimmek, APRN, CNP, AGNP; Michelle Peterson, APRN, CNP, AGNP; and Leah Roering, APRN, CNP, FNP-BC, provide acute and primary care for the Stroke and Vascular Neurology department. With the support of their collaborating physicians, these NPs see patients autonomously and ensure patients receive quality, evidence-based stroke care according to current guidelines.

The NPs provide care for stroke patients along the continuum of care. They attend code strokes in the emergency room and are often the first members of the stroke team the patients see after admission. In addition to admitting stroke patients, the NPs also round on hospitalized patients and prepare patients for discharge. These NPs provide follow-up visits in the clinic and through telehealth. Rural patients who need follow-up care can utilize telehealth technology in their communities and receive the same care as if they had been seen in person. The ability to see these patients virtually has increased patient compliance with follow-up appointments and has saved many patients trips on icy roads during the winter months.

Each of the stroke and vascular NPs have successfully completed board certification through their credentialing institutions and have received extensive one-on-one training with the stroke and vascular neurologists. Within the past year, all three have become Emergency Neurological Life Support (ENLS) certified, which focuses specifically on neuro-critical care training. This endorsement goes beyond their normal nurse practitioner certification and demonstrates their commitment to being neuro-critical care and stroke experts.

Aside from patient care, the NPs share their knowledge with others by presenting at national conferences and co-authoring medical journal articles. Locally, they present continuing education material for professional staff and speak at community education events. As a group, they have been identified as the ideal practice model for effective nurse practitioner use within St. Cloud Hospital.

Working together has been a wonderful experience and it started before they even came to work at CentraCare. All three NPs were students in the graduate program at the College of St. Scholastica. During this time, they routinely car pooled to class activities and studied together. Now the studying continues as they pave the way for advanced practice providers specializing in quality, evidence-based patient care who want to practice to the top of their license and scope of practice.

(left to right)
Michelle Peterson, APRN, CNP, AGNP
Leah Roering, APRN, CNP, FNP-BC
Erica Klimmek, APRN, CNP, AGNP





Endovascular Surgical Neuroradiology Fellowship

CentraCare Neurosciences Stroke Center is proud to offer an endovascular surgical neuroradiology fellowship program. As the fellowship director, I am excited to be training the next generation of interventional neurologists. This fellowship is a unique subspecialty program which provides two years of supervised graduate medical education experience with progressive responsibility in all aspects of endovascular surgical neuroradiology.

Prior to entering this program, potential fellows must complete an accredited residency program in neurology and an accredited fellowship in vascular neurology. These fellows are already stroke experts who want to further their skills to become interventional neurologists. Fellows must have a thorough knowledge of the natural history of cerebrovascular diseases, current clinical trials, and the risks and benefits of various treatment options.

Under the direct supervision of program faculty, fellows learn how to comprehensively care for patients with cerebrovascular disease. In an unprecedentedly efficient and in-depth manner, the program exposes fellows to the preoperative evaluation, intra-procedural skills and post-procedural management of patients with various vascular diseases of the central nervous system, head, neck and spine implementing the latest technology and research.

The CentraCare Neurosciences fellowship program is one of two in Minnesota — and one of approximately 20 educational programs nationally — that trains vascular neurologists in the procedural techniques required for minimally invasive treatment of acute ischemic stroke, brain aneurysms and other cerebrovascular diseases. Our fellowship program offers a unique opportunity to train at a high-volume center which is neither in a large metropolitan city nor at a conventional academic institution. At the time of this publication, we are getting ready to graduate our second fellow. Our fellowship program is comparatively new, being approximately four years old, however, the field of interventional neurology itself is fairly new with the earliest fellowship programs starting in the late 90s and early 2000s.

As the fellowship director and a member of the CentraCare Neurosciences Stroke Center team, I am committed to giving back to the residents of Central Minnesota by improving the care of those affected by cerebrovascular disease. We are proud to support the educational and training needs of future stroke experts and further advance the care and treatment of patients with neurological disorders.

A handwritten signature in black ink, appearing to read "Kenneth Shea, MD".

Kenneth Shea, MD
Stroke and Vascular Neurologist
Endovascular Surgical Neuroradiology Fellowship Program Director

Stroke Quality Measures

Get With The Guidelines-Stroke Gold Plus Quality Achievement Award with Target: Stroke Honor Roll

Elite Plus

Hospitals receiving Get With The Guidelines® Gold Plus Achievement Award have reached an aggressive goal of treating patients with 85 percent or higher compliance to core standard levels of care as outlined by the American Heart Association/American Stroke Association® for two consecutive calendar years. In addition, those hospitals have demonstrated 75 percent compliance to seven out of ten stroke quality measures during the 12-month period. This is the fourth year in a row that CentraCare Neurosciences Stroke Center at the St. Cloud Hospital has achieved this award.

To qualify for the Target: Stroke Honor Roll Elite Plus, hospitals must achieve Time to Intravenous Thrombolytic Therapy ≤ 60 minutes in 75 percent or more of applicable acute ischemic stroke patients treated with IV alteplase. Hospitals must also achieve Time to Intravenous Thrombolytic Therapy within 45 minutes in 50 percent or more of applicable acute ischemic stroke patients treated with IV alteplase.

About Get With The Guidelines®

Get With The Guidelines® is the American Heart Association/American Stroke Association's hospital-based quality improvement program that provides hospitals with the latest research-based guidelines. Developed with the goal of saving lives and hastening recovery, Get With The Guidelines has touched the lives of more than five million patients since 2001.

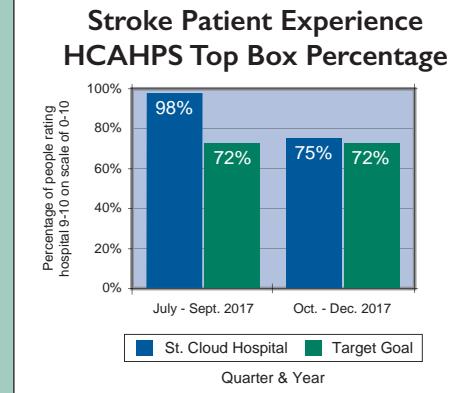
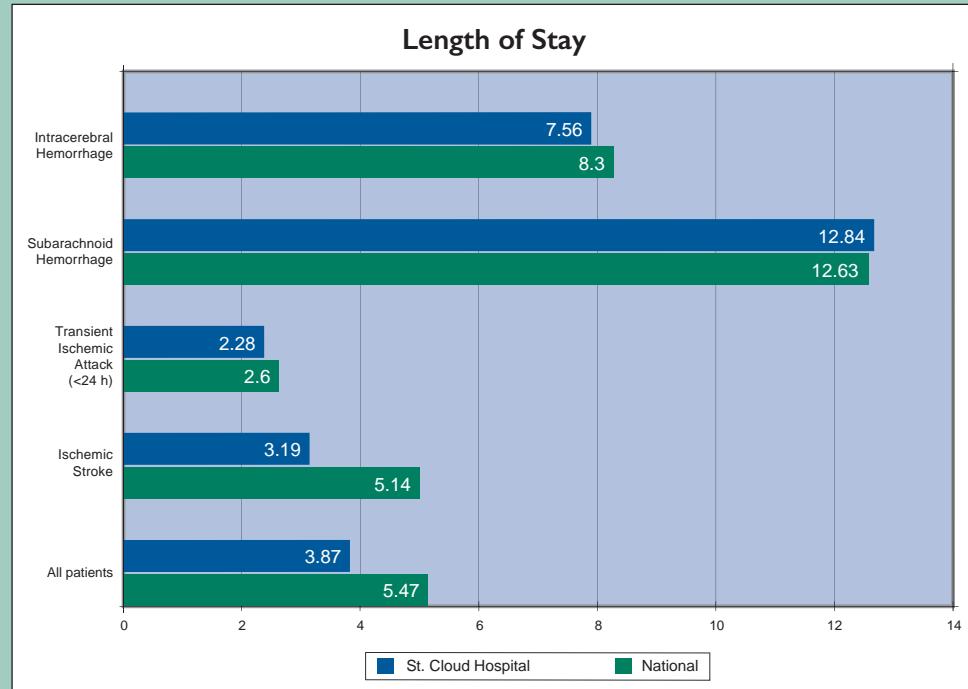


| Get With The Guidelines (GWTG)-Stroke Gold Achievement Metrics | GWTG Gold Achievement Goal | 2017 National Average | 2017 St. Cloud Hospital | 2016 St. Cloud Hospital | 2015 St. Cloud Hospital |
|---|----------------------------|-----------------------|-------------------------|-------------------------|-------------------------|
| Ischemic or hemorrhagic stroke patients who receive VTE prophylaxis by the end of hospital day 2 | 85% | 97.2% | 98.5% | 98.8% | 98.3% |
| Ischemic stroke or TIA patients prescribed antithrombotics on DC | 85% | 98.5% | 100% | 100% | 99.7% |
| Ischemic stroke or TIA patients with atrial fibrillation/flutter discharged on anticoagulation therapy | 85% | 96% | 98.8% | 96.9% | 96.2% |
| Acute ischemic stroke patients who arrive at the hospital within 2 hours of last time known well, receive IV tPA within 3 hours of last time known well | 85% | 88.4% | 96.4% | 88.2% | 92.6% |
| Ischemic stroke or TIA patients who receive antithrombotic by end of hospital day 2 | 85% | 97.2% | 97.7% | 98.9% | 98.7% |
| Ischemic stroke and TIA patients with LDL >100, LDL not measured, or on cholesterol-reducer prior to admission are prescribed statin therapy on DC | 85% | 96.9% | 98.5% | 99% | 98% |
| Ischemic or hemorrhagic stroke, or TIA with a history of smoking cigarettes, who are, or whose caregivers are, given smoking cessation advice or counseling during hospital stay | 85% | 97.3% | 100% | 100% | 100% |
| Additional Quality Metrics for Gold Plus | GWTG Quality Award Goal | 2017 National Average | 2017 St. Cloud Hospital | 2016 St. Cloud Hospital | 2015 St. Cloud Hospital |
| Stroke or TIA patients or their caregivers who were given education and/or educational materials during the hospital stay | 75% | 95.1% | 94.6% | 92.4% | 96.3% |
| Patients with stroke who were assessed for rehabilitation services | 75% | 98.7% | 99.9% | 99.7% | 99.6% |
| Ischemic stroke or TIA patients with a documented Lipid profile98 | 75% | 92.8% | 96% | 98% | 98.2% |
| Ischemic stroke and stroke not otherwise specified patients with a score reported for NIH Stroke Scale (Initial) | 75% | 89.9% | 96.4% | 95% | 94.8% |
| Stroke patients who undergo screening for dysphagia with an evidence-based bedside testing protocol approved by the hospital before being given any food, fluids or medication by mouth | 75% | 84.4% | 93.4% | 97.2% | 92.7% |

Graph 3

Inpatient Satisfaction

Random inpatient satisfaction surveys are sent to patients discharged from St. Cloud Hospital by Press Ganey, the health care industry's leading independent vendor of satisfaction. In July 2016, the method to measure satisfaction was changed to Top Box percentage. The Top Box score reflects the percentage of patients that scored "very good" or "always" on their survey questions. St. Cloud Hospital is at or above national benchmarks as shown in [graph 3](#).

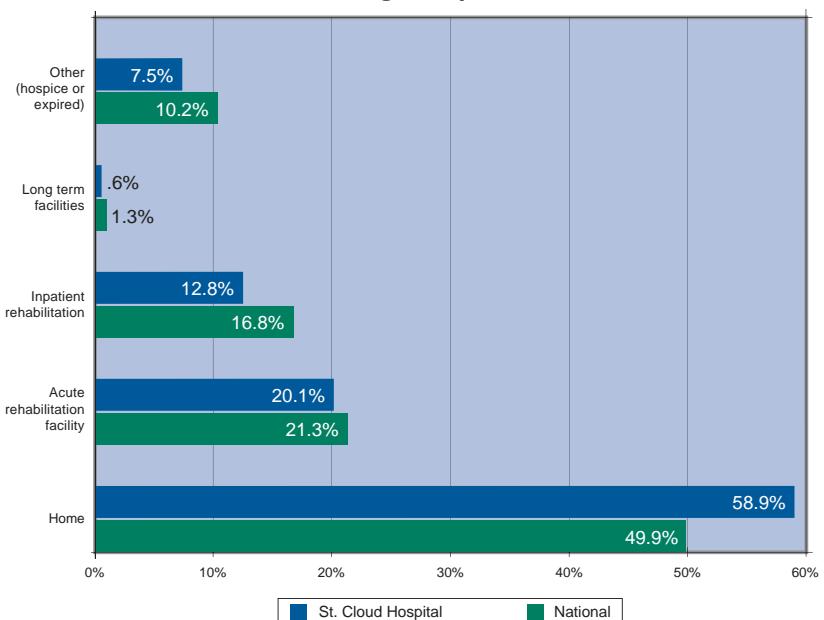
**Graph 4**

Length of Stay

[Graph 4](#) depicts the mean length of stay (LOS) for the various types of strokes in 2017. St. Cloud Hospital LOS is below national benchmarks for all stroke types except for the subarachnoid hemorrhages, which is slightly higher.

Graph 5

Discharge Disposition



Discharge Disposition

In 2017, more of our patients went home and fewer patients needed hospice or experienced death when compared to national benchmarks, as shown in [graph 5](#).



Inpatient Rehabilitation Stroke Patients

St. Cloud Hospital Inpatient Rehabilitation Unit has been a Commission on Accreditation of Rehabilitation Facilities (CARF) accredited program since 2009. We were honored to be the first facility in Central Minnesota to achieve this accreditation and distinction. Stroke patients are the largest demographic of patients served in our facility. In 2016, 41 percent of our patients were stroke survivors for a total of 165 patients. In 2017, 34 percent of our patients were stroke survivors (158 patients).

FIM (Functional Independence Measure) is a nationally recognized tool used by inpatient rehabilitation units to measure patients' abilities to care for themselves. Areas measured include eating, grooming, bathing, toileting, communicating, ambulation, speaking and thinking skills. We are able to measure a patient's improvement through these scores. The higher the FIM score, the more independently a patient can function. We look at patients' admission FIM scores as well as their discharge scores. We also measure their improvement through the FIM change score. The FIM change score is the difference in a patient's admission and discharge scores compared to a patient's length of stay. During 2017, the average stroke patient had a length of stay of 13.4 days. Upon

admission, the average FIM score was 56.5 and discharge was 86.2 which indicated a FIM change score of 29.6.

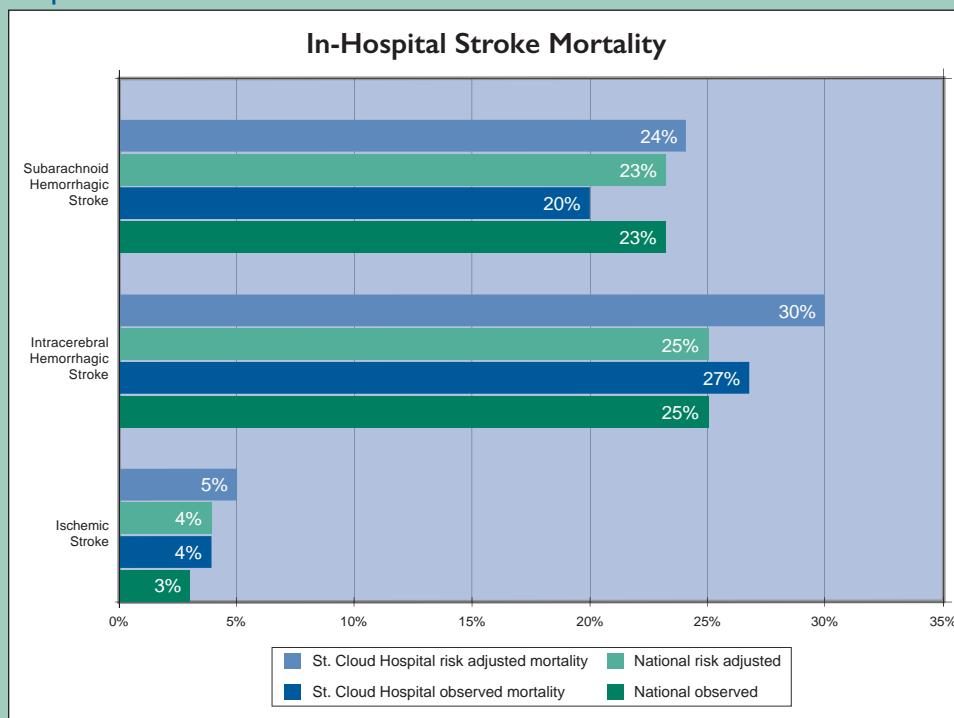
We also measure our patients CMI (Case Mix Index) which takes their admission FIM scores, age, diagnosis and pre-existing conditions in account. Our stroke patients

in 2017 had a CMI of 1.47, this is higher than the regional and national scores which are closer to 1.31. A higher CMI reflects the more clinically complex needs of the patient. Even though we had slightly above average CMI scores for our patients, we were able to discharge 71.5 percent of them back into the community setting.

| Inpatient Rehabilitation Stroke Patients | 2017 | 2016 | 2015 |
|--|-------|------|------|
| Total patients | 158 | 165 | 152 |
| Length of stay | 13.4 | 15 | 14 |
| Discharge to community | 71.5% | 73% | 71% |
| Admission FIM | 56.5 | 57 | 62 |
| Discharge FIM | 86.2 | 88 | 93 |
| FIM change | 29.6 | 30 | 31 |
| CMI | 1.47 | 1.47 | 1.42 |
| Average age | 68.9 | 69 | 69 |
| Male | 53% | 65% | 62% |
| Female | 47% | 35% | 38% |
| Non-caucasian | 4% | 3% | 5% |



Graph 6



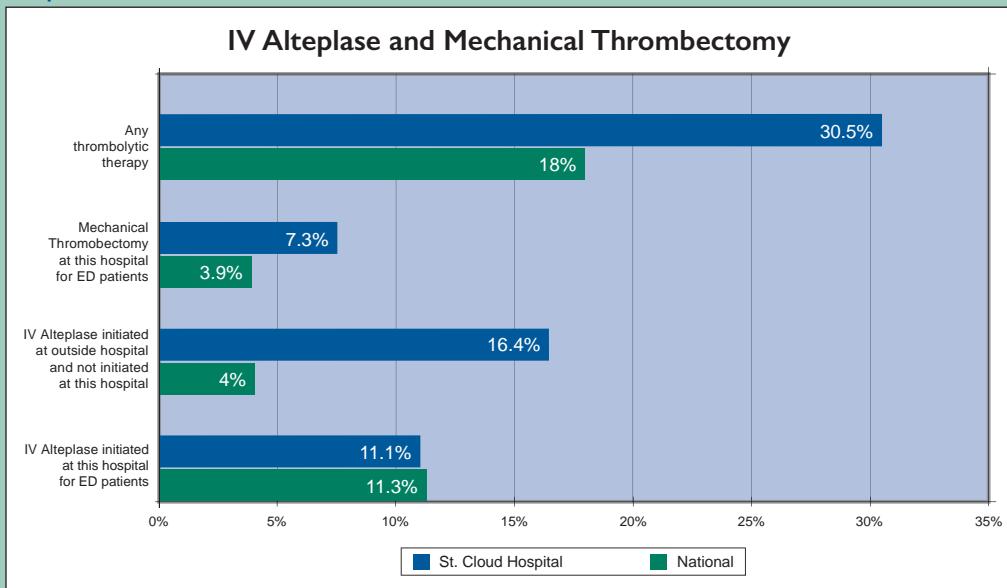
In-Hospital Stroke Mortality

St. Cloud Hospital's 2017 in-hospital mortality reports (graph 6) were obtained through Get With The Guidelines-Stroke. Acute ischemic stroke calculations include adjustments using the National Institutes of Health Stroke Scale (NIHSS). Risk-adjusted mortality takes into account co-morbidities that would increase mortality and is considered the expected mortality. St. Cloud Hospital's acute ischemic, intracerebral and subarachnoid hemorrhages observed mortality is less than the expected mortality. When compared to national benchmarks, the observed mortality is higher for acute ischemic and intracerebral hemorrhagic strokes, however, the risk adjusted mortality is significantly higher indicating that the St. Cloud Hospital cares for sicker patients with higher expected mortality rates.

All-Cause 30-Day Readmissions

Centers for Medicare and Medicaid Service (CMS) reporting period from third quarter 2013 through second quarter 2016 listed St. Cloud Hospital's All-Cause 30-Day readmission rate at 12.2 percent, which is reported as "no different than" the national rate.

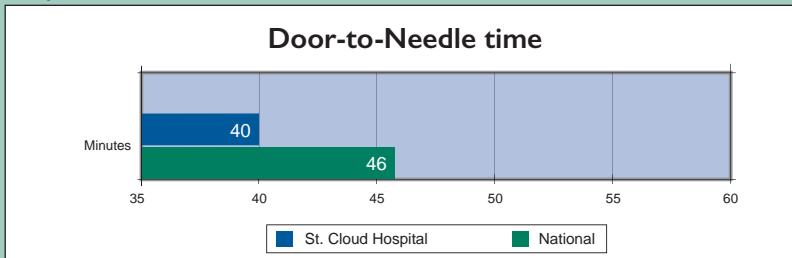
Graph 7



Stroke Treatment

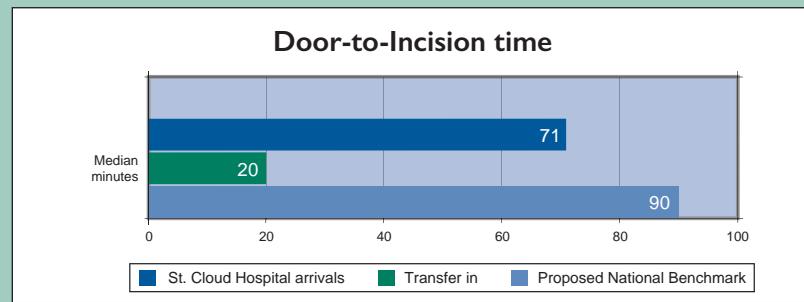
Graph 7 compares the IV alteplase and mechanical thrombectomy 2017 usage rate for Stroke Center patients to national benchmarks. The graph indicates that our overall treatment rates are above national benchmarks. We have a developed telestroke system where stroke providers consult with emergency department providers on IV alteplase administration. Our administration rates at outside facilities are higher than national benchmarks.

Graph 8



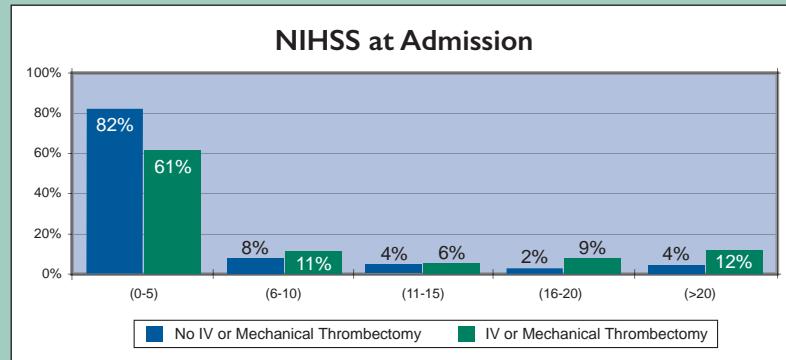
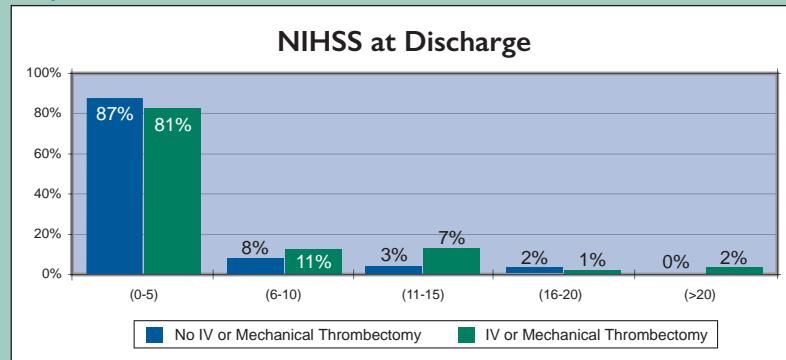
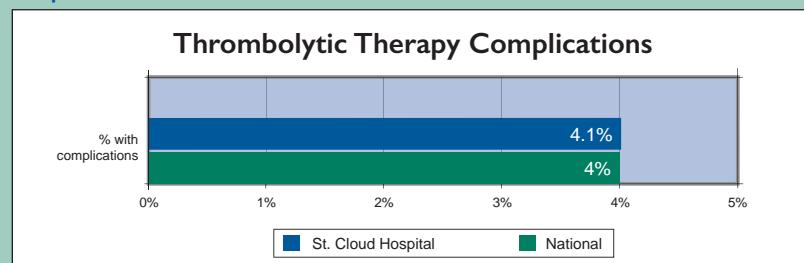
- Door-to-Needle Time

Graph 8 demonstrates St. Cloud Hospital has a lower door-to-needle median time compared to national benchmarks.

Graph 9

- **Door-to-Incision Time**

It is recommended that patients that are eligible for a thrombectomy receive treatment as quickly as possible. That national proposed benchmark is based on recent clinical trials and includes both patients that were transferred from outside hospitals and those that came directly to the stroke center emergency room. The transfer time from outside hospitals can vary greatly due to distance from the stroke center. Graph 9 shows the breakdown between these two categories for St. Cloud Hospital and that performance is better than the proposed national benchmark in both categories.

Graph 11**Graph 12****Graph 10**

- **Thrombolytic Therapy Complications**

Graph 10 shows St. Cloud Hospital has comparable 2017 thrombolytic complication rates compared to national benchmarks. Thrombolytic therapy refers to IV alteplase or mechanical thrombectomy. Thrombolytic complications are defined as life-threatening serious systemic hemorrhages or symptomatic brain hemorrhages within 36 hours of IV alteplase or other serious complications that require additional medical interventions or a prolonged hospital stay.

Functional Outcome (NIHSS)

The National Institutes of Health Stroke Scale (NIHSS) is validated clinical assessment that provides a quantitative measure of stroke severity. The scale ranges from 0, being no deficits to 42, being a severe stroke. Graphs 11 and 12 illustrate greater improvements in 2017 stroke severity upon discharge for patients that receive IV alteplase and/or mechanical thrombectomy.

Improving Community Health

Research

CentraCare Neurosciences Stroke Center is involved in clinical and academic research to support best practices and evidence-based care for stroke. Members of our robust cerebrovascular team have published several research articles in medical journals and presented at national and international conferences.

ARAMIS

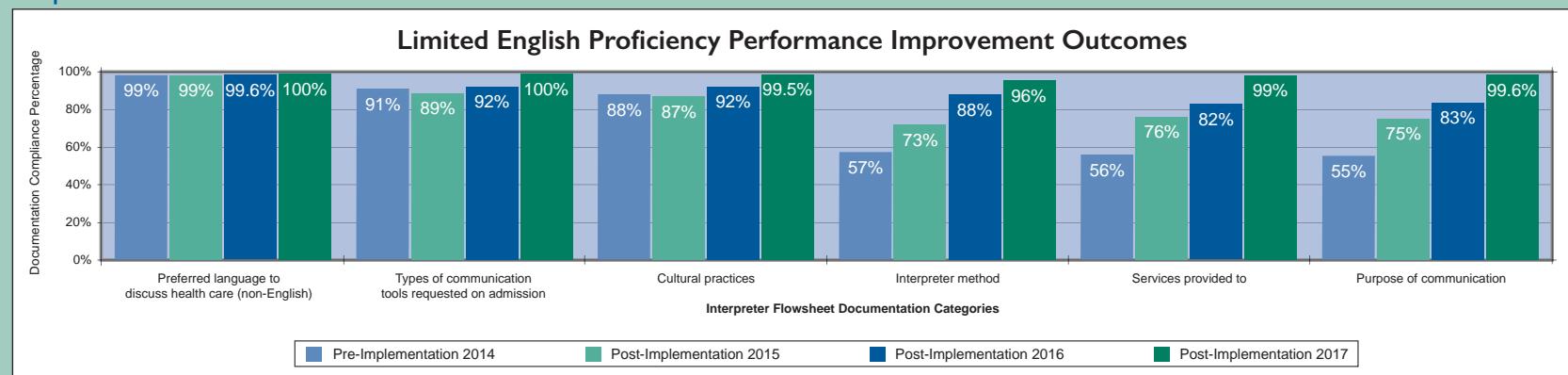
CentraCare Neurosciences Stroke Center enrolls patients in Addressing Real-world Anticoagulant Management Issues in Stroke (ARAMIS). This study is sponsored by Duke University and by invitation only. The study is designed to provide important and timely insight into the management of acute stroke patients who are on novel oral anticoagulants in community practice. The study is estimated to enroll 10,000 patients by study completion date of August 2019.

StrokeNet

CentraCare Neurosciences Stroke Center has joined the National Institute of Health's StrokeNet, which was created to conduct small and large clinical trials and research studies to advance acute stroke treatment, stroke prevention, and recovery and rehabilitation following a stroke. The network consists of 25 regional centers across the United States which involves more than 200 hospitals.

St. Cloud Hospital is part of the University of Minnesota Regional Coordinating Center.

Graph 13



Nursing Research

Evidence-Based Practice Projects

Evidence-based practice (EBP) is "Health care delivery based on the integration of the best research evidence available combined with clinical expertise, in accordance with the preferences of the patient and family."¹ Evidence-based practice improves patient safety and mortality. Nurses leading EBP projects result in significant improvements in patient quality and safety, patient and family satisfaction, staff satisfaction and safety, reduction in health care costs and innovations in practice. St. Cloud Hospital has nurses participating in many EBP projects throughout the organization. Two of the EBP projects which positively impacted care for stroke patients were conducted by nurses from the Neuroscience/Spine Unit.

Improving Nursing Skills in Caring for Culturally Diverse Patients

by Jenna Czech, BSN, RN, CNRN

Effective communication with our patients and their loved ones is one of our highest priorities. An evidence-based practice project, focused on improving nursing skills and competency when caring for culturally diverse populations within St. Cloud Hospital, was initiated to address communication barriers for this population. This project focused on nursing education and the initiation of specific care plans related to Limited English Proficiency (LEP) (graph 13) patient populations which promoted safety, improving patient experience and positive outcomes. Meeting the language access and cultural needs of our stroke patient population is essential in assuring accurate neurological assessment,

applying appropriate interventions and completing proper goal setting. Assessing a stroke patient's communication needs and utilizing resources for key communication events are essential to improving overall nursing practice.

Using the most up-to-date evidenced-based literature, an individualized care plan was created and implemented for all LEP patients to improve the current process, streamline care and meet standards of compliance. Initial housewide LEP Performance Improvement (PI) reports were developed and evaluated. These reports identified that existing interpretation tools were underutilized and underdocumented. Focus groups were held with target populations to assess current needs and barriers with the focus being improving community and population health for the individuals we serve. Mandatory cultural competency education through computer-based training modules, posters, emails, tip sheets and live presentations was designed for all staff nurses focusing on care plan use, bedside clinical assessments, communication, physical environment, safety, resource utilization, documentation and interpreter use.

Ongoing LEP PI reports have been monitored quarterly since October 2013 with a focus on housewide analysis of data and recommend actions to achieve further improvement. Outcomes are tracked on individual inpatient nursing units through an Interpreter Usage report. This process of daily monitoring by clinical resource nurses evaluates implementation through an individualized standard LEP care plan and is instrumental in continuing to improve practice for our patients. This process allows education in real time to increase compliance with interpreter utilization, meet documentation standards and ensure LEP care plan activation. Nurses report observable improvement in their ability to impact quality. Empowering nurses and patients continues to generate positive processes and clinical outcomes for the diverse patients we serve.

Reducing Falls in Neuroscience Patients

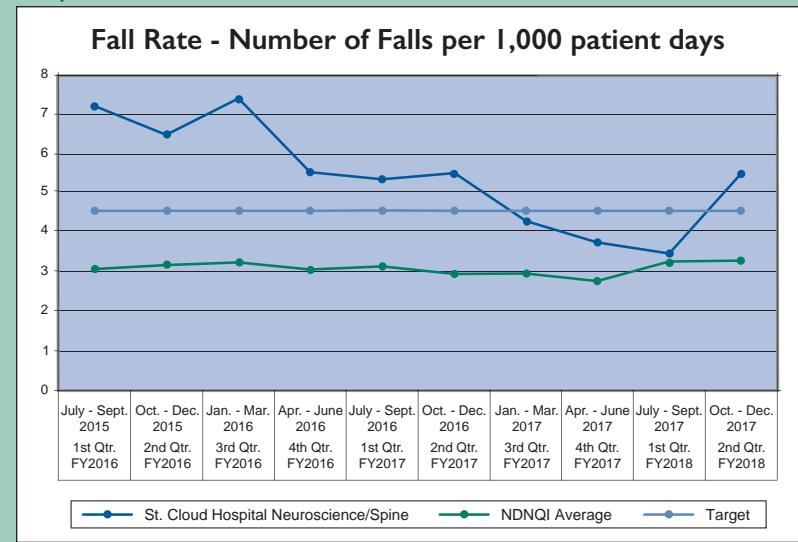
by Elizabeth Krekelberg, BSN, RN, CNRN, SCRN

The fall rate among neurological patients typically are higher than most other specialties. Stroke patients often arrive at the hospital with new physical or psychological weaknesses and may not realize their functional limitations put them at increased risk for fall. Because patient safety is one of the most important aspects of nursing, an evidence-based practice project was implemented on the Neuroscience/Spine Unit due to an increased fall rate.

Literature has shown that patients are poorly engaged regarding their own safety when first admitted to the hospital. Finding daily ways to educate patients is a common theme in the literature about fall reduction efforts. Due to the many variables that contribute to increased fall risk, the project initially focused on patients that were alert.

Nurses received education, including a simulation, on how to educate patients about their fall risk factors and interventions that would be implemented to keep them safe. This patient education was repeated during bedside report, for a total of two to four times daily. Another approach to increase communication was to include fall risk and specific interventions in the written hand-off report for the entire care team, including nurses and non-licensed staff.

Graph 14



This EBP project's success was demonstrated in the decrease in the total fall rate. The fall rate per quarter (number of falls per 1,000 patient days) ([graph 14](#)) decreased from a high of 7.3 falls to 3.6 falls after starting fall education at the bedside during nurse hand off.

It also is noted that the number of patients who fell that were alert and oriented decreased from 65 percent of the total falls to approximately 30 percent, thus reinforcing that targeted education to alert patients was effective.

Community Education

Prevention of stroke begins with education. Our community education is aimed at increasing awareness of stroke risk factors, stroke warning signs and responses needed when stroke warning signs occur. CentraCare Neurosciences Stroke Center strives to educate the community by being involved in numerous events. Two of our largest events are Strides for Stroke and Strike Out Stroke.



Strides for Stroke

Each May, the Minnesota Stroke Association holds an event to honor stroke survivors and raise stroke awareness. Walks are held at three locations across the state: Duluth, St. Cloud and the Twin Cities. Collectively, the events attract more than 825 walkers and raise approximately \$40,000.

Strike Out Stroke

Each year, CentraCare Neurosciences Stroke Center partners with the St. Cloud Rox to sponsor the Strike Out Stroke night. The fun and educational night includes pre-game events, free bat giveaway and LifeLink III helicopter flying the stroke honoree in to throw out the first pitch. St. Cloud Stroke Support Group and St. Cloud State University's "Let's Speak Again" aphasia group end the pre-game activities by singing of the national anthem. Throughout the game, more than 1,500 attendees learned about stroke signs, how to reduce risk and what to do if experiencing a stroke.



CENTRA CARE Neurosciences

CentraCare Health

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Non-acute cases: **320-240-2148** CentraCare Neurosciences

Quality distinctions



Central Minnesota's first Joint Commission-certified stroke center



The region's first CARF-accredited (Commission on Accreditation of Rehabilitation Facilities) for inpatient rehabilitation hospital programs for adults, children and adolescents.



St. Cloud Hospital was awarded the Get With The Guidelines-Stroke Gold Plus Quality Achievement Award for adhering to all achievement measures.



CENTRA CARE + St. Cloud Hospital

As a Magnet-designated hospital, St. Cloud Hospital honors strong nursing, interdisciplinary team practice and commitment to quality patient care.