

New York State Stroke Services

GUIDANCE DOCUMENT FOR CERTIFYING ORGANIZATIONS,
HOSPITALS AND HEALTH SYSTEMS

VERSION 23.1

New York State Department of Health

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New York State Stroke Designation Program ([ny.gov](https://www.ny.gov))

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Change Log

All material changes are outlined below. Immaterial changes are not included in the change log.

Page 5: added language specifying that NYSDOH stroke measures are only required to be collected and reported to the NYSDOH on a quarterly basis and are not required to be collected by the hospital's contracted accrediting organization.

Page 7: Table A: New table showing all NYS stroke designation requirements that must be incorporated into the certifying organizations standards.

Page 7: removed designation ramp up period for TSC, which had allowed for reduced mechanical thrombectomy facility volume as a path for achieving TSC designation.

Page 7: added Critical Care as an option for Board certification for the Stroke Medical Director

Page 7: clarified the requirement that a Stroke Medical Director may only serve a single CSC

Page 8: clarified that for PSC designation, if a neurologist is not available for consultation, then the physician who is providing the consultation must have experience in the diagnosis and treatment of ischemic stroke.

Page 8: clarified the requirement for Physician training to allow for training in critical care or neurocritical care for managing the care of complex stroke patients in the designated neurointensive care unit or designated intensive care beds

Page 9: clarified neurosurgeon requirement for comprehensive stroke center designation so that neurosurgeon is on call 24/7 and available on site within 30 minutes of notification to perform and support the performance of emergency neurosurgical procedures.

Page 9: added requirement that all inpatient stroke patients (excluding those transferred to another acute care facility or hospice) must be assessed for rehabilitation services.

Page 9: added Nurse Case Manager and Social Worker requirement for PSC and TSC requiring Nurse Case Managers and Social Workers with expertise in neurology/stroke care, care coordination, different levels of rehabilitation, and community resources. CSCs previously had this requirement and continue to do so.

Page 11: added requirement for Computed Tomography Angiography (CTA) at the PSC level.

Page 12: added Blood Glucose testing capability as a laboratory requirement.

Page 12: clarified requirement for beds to allow for designated neurointensive care unit or designated intensive care beds for the care of complex stroke patients which must be available 24/7

Page 13: added language to stroke education requirement to bolster patient education to include culturally appropriate materials.

Table B: New table showing all performance measures and time targets that should be reported to the NYSDOH.

Removed 85% benchmark from the following measures.

NYS PSC 17: Door to MD/DO (can include midlevel) assessment (10 minutes)
NYS PSC 18: Door to Stroke Team (15 minutes)
NYS PSC 19: Door to Brain Image Initiated (25 minutes)
NYS PSC 20: Door to Brain Image Read (45 minutes)

Abbreviations

ACGME -Accreditation Council for Graduate Medical Education
AFIB - Atrial Fibrillation
CA - Carotid Angiography
CAST - Committee on Advanced Subspecialty Training
CEO - Chief Executive Officer
CMO - Chief Medical Officer
CSC - Comprehensive Stroke Center
CT - Computed Tomography
CTA - Computed Tomography Angiography
CTP - Computed Tomography Perfusion
DO - Doctor of Osteopathic Medicine
EMS - Emergency Medical Services
GWTG - Get With The Guidelines
HCS - Health Commerce System
ICH - Intracerebral Hemorrhage
ICU - Intensive Care Unit
IRB - Internal Review Board
IV - Intravenous
MD - Medical Doctor
MRA - Magnetic Resonance Angiography
MRI - Magnetic Resonance Imaging

mRS - Modified Rankin Score
NIHSS - National Institute of Health Stroke Scale
NYS - New York State
NYSDOH - New York State Department of Health
OT - Occupational Therapy
PSC - Primary Stroke Center
PT - Physical Therapy
QI - Quality Improvement
RN - Registered Nurse
SAH - Subarachnoid Hemorrhage
SLP - Speech-Language Pathologist
TEE - Transesophageal Echocardiography
TIA - Transient Ischemic Attack
TICI - Thrombosis in Cerebral Infarction
TSC - Thrombectomy Capable Stroke Center
TTE - Transthoracic Echocardiogram
UCNS - United Council of Neurologic Subspecialties
VTE - Venous Thromboembolism

Introduction and Purpose

This guidance document provides information to New York State general hospitals and approved certifying organizations on Title 10 NYCRR 405.34: Stroke Services. Title 10 NYCRR 405.34: Stroke Services gives the New York State Department of Health (NYSDOH) the authority to implement a statewide program responsible for designating general hospitals as stroke centers. This program, called 'the stroke designation program' is voluntary, but any general hospital that participates must meet the requirements outlined in this document and in Title 10 NYCRR 405.34. This document details the process by which a hospital may request designation as a stroke center from the NYSDOH, and it outlines New York State specific standards for all three levels of stroke designation (Primary, Thrombectomy Capable, and Comprehensive Stroke Center).

A general hospital that is designated as a stroke center at any level has the infrastructure, staffing, and capability to treat persons experiencing a stroke. In New York State, emergency medical services (EMS) follow [protocols](#) to preferentially triage and transport suspected stroke patients to facilities that are designated as stroke centers.

Treatment of acute stroke is most successful through a purposefully planned and implemented system of coordinated care. This happens across a continuum beginning with pre-hospital response, through emergency and in-hospital treatment, to post-discharge transitions of care. The NYSDOH is committed to working with medical care providers across the state to ensure that all stroke patients receive the most appropriate and timely medical treatments possible. This guidance document addresses the activities and roles that hospitals play in this effort.

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Stroke Center Designation Process

Pursuant to [Title 10 NYCRR 405.34: Stroke Services](#), general hospitals in New York State that are interested in becoming a designated stroke center are required to:

- receive certification as either a Primary, Thrombectomy Capable, or Comprehensive Stroke Center from a nationally recognized accrediting organization approved by the NYSDOH,
- request stroke center designation from the NYSDOH and be approved by the NYSDOH,
- utilize a stroke registry to collect and report data related to stroke care at their facility and give the NYSDOH access to this stroke registry, and
- complete an annual stroke center survey via Health Electronic Response Data System (HERDS) in the Health Commerce System (HCS).

Certification Process

A list of accrediting organizations with certifying authority is publicly available on the NYSDOH webpage, here: [New York State Stroke Designation Program \(ny.gov\)](#). These accrediting organizations are referred to as 'Certifying Organizations' throughout this document and in the Stroke Services regulation. Hospitals wishing to participate in the voluntary stroke designation

program are not required to receive hospital-wide accreditation from the certifying organization; rather, they must receive disease-specific certification for stroke services.

Designation Process

Once a hospital receives stroke specific certification at the Primary, Thrombectomy Capable, or Comprehensive level, the hospital must apply to the NYSDOH for Stroke Designation, utilizing the '[Request for Stroke Designation](#)' form found on the NYSDOH webpage. As outlined in Title 10 NYCRR 405.34, the NYSDOH will issue designation based on the certifying organization's recommendation but may also take other criteria into consideration, including but not limited to investigations by Federal or State oversight agencies.

Reporting Requirements

All designated stroke centers (Primary, Thrombectomy Capable, and Comprehensive Stroke Center) are required to collect and report the performance measures and time targets in **Table B: NYS Performance Measures and Time Targets**, to the specifications indicated in the table, to the NYSDOH on a quarterly basis. Certifying organizations are not required by the NYSDOH to collect these measures on behalf of the New York State Stroke Designation Program.

Designated stroke centers must use a stroke registry to collect, and report required measures to NYSDOH. The stroke center must give the NYSDOH permission to access their stroke registry for purposes of electronically transmitting data to NYSDOH and for NYSDOH to review performance measure and time target data. Designated stroke centers are also required to report information specified by the NYSDOH (e.g., contact information, tele stroke, informed consent) to HERDS on an annual basis. The Stroke Designation HERDS survey is accessible in the Health Commerce System (HCS) every March.

Designation Maintenance

A facility will remain designated as long as their certification is maintained. If a facility switches levels of certification or switches certifying organizations, they must request a new designation. If a facility loses their certification for any reason or their certification lapses, the facility must notify the NYSDOH via email.

Transition Timeline

The transition timeline only applies to hospitals seeking to maintain designation achieved prior to the regulated stroke program. Applications for designation will be accepted on a rolling basis for any hospital meeting certification requirements and seeking designation as a stroke center under Title 10 NYCRR 405.34.

Title 10 NYCRR 405.34, part (g) allows for a transition period to phase out the pre-regulation stroke designation program. During the transition period, all stroke centers that were designated prior to the adoption of Title 10 NYCRR 405.34 (March 19, 2019) will continue to receive suspected stroke patients from EMS and report to HERDS.

Stroke centers that were designated prior to the adoption of Title 10 NYCRR 405.34 that do not receive certification and designation during the transition timeline will no longer maintain stroke designation and will not be recognized within the New York State stroke system of care as a destination for suspected stroke patients by EMS.

For more information about the transition timeline please visit:
<https://www.health.ny.gov/diseases/cardiovascular/stroke/designation/>

Stroke Center Designation Criteria

The Primary, Thrombectomy Capable, and Comprehensive Stroke Center criteria, outlined in **Table A: NYS Requirements for Stroke Center Designation**, integrate requirements related to the Guidelines of the Brain Attack Coalition (BAC) and recommendations of the NYSDOH, the New York State Stroke Advisory Group, the American Heart Association (AHA), and the American Stroke Association (ASA).

All certifying organizations must use the criteria, outlined in **Table A**, as a baseline in developing their New York State stroke center certification standards but may also include additional standards that exceed this baseline in their certification survey process. **Table A: NYS Requirements for Stroke Center Designation** denotes the needed infrastructure and required capabilities to be designated as a stroke center with an 'X' in the respective stroke center level column. Stroke centers, please note that the table is not a comprehensive list of requirements related to stroke certification. General hospitals seeking stroke certification and designation must contact one of the approved certifying organizations to receive their complete standards manual.

Primary Stroke Center Definition

The Primary Stroke Center (PSC) is defined as a general hospital with the resources and processes to care for acute stroke patients, including administration of intravenous thrombolytic therapy, and is considered the cornerstone of New York State stroke care. The PSC requirements in **Table A** replace the pre-regulation New York State Primary Stroke Center requirements.

Thrombectomy Capable Stroke Center Definition

The Thrombectomy Capable Stroke Center (TSC) is defined as a general hospital that performs endovascular thrombectomy procedures and provides post-procedural care.

Comprehensive Stroke Center Definition

A comprehensive stroke center (CSC) is defined as a general hospital with the necessary personnel, infrastructure, expertise, and programs to diagnose and treat stroke patients who require a high intensity of medical and surgical care, specialized tests, or interventional therapies. Additional functions of a CSC would be to act as a resource center for other facilities in their region, such as PSCs. This might include providing expertise about managing particular cases, offering guidance for triage of patients, making diagnostic tests or treatments available to patients treated initially at a PSC, and being an educational resource for other hospitals and health care professionals in a city or region.¹

¹ [Recommendations for Comprehensive Stroke Centers | Stroke \(ahajournals.org\)](https://www.ahajournals.org/doi/10.1161/01.STR.0000170622.07210.b4)
(<https://www.ahajournals.org/doi/10.1161/01.STR.0000170622.07210.b4>)

Table A: NYS Requirements for Stroke Center Designation

Table A requirements must be included in the certifying organizations' stroke center standards manual for all stroke center certification surveys in NYS.

	Stroke Center Level		
	PSC	TSC	CSC
Eligibility / Volume Requirements			
Administers IV thrombolytic and provides acute care to stroke patients	X	X	X*
* Administered IV thrombolytic to at least 25 eligible patients over the past 12 months or at least 50 patients over the past 24 months. (IV thrombolytic given at another hospital based on tele-stroke recommendation by the CSC and transferred to the CSC or if the patient is not transferred to the CSC and there is evidence of follow-up monitoring, that patient can be counted in the eligibility number)			X
Performed mechanical thrombectomy and post-procedural care for at least 15 patients with ischemic stroke over the past 12 months or 30 over the past 24 months		X	X
Provided care to 20 or more patients per year with a diagnosis of subarachnoid hemorrhage			X
Accomplished greater than or equal to 10 endovascular coiling or surgical clipping procedures per year for the treatment of a brain aneurysm			X
Leadership: The Stroke Center provides leadership for the stroke program through a stroke coordinator and medical director.			
The Stroke Coordinator must be: <ul style="list-style-type: none"> • A full-time member of hospital staff (can be concurrently assigned to other role in the hospital) • A liaison with EMS, who coordinates and evaluates pre-hospital care for stroke services, ensures timely and accurate data submission to EMS as requested, and complies with monitoring programs that are established by regional EMS providers • Responsible for the collection, storage, and reporting of stroke data • Responsible for coordinating quality improvement of the stroke program, including analysis and interpretation of the program's stroke data to drive quality improvement of the stroke program 	X	X	X
The Stroke Medical Director must be available 24/7 to provide leadership and attend to difficult medical, logistical, and administrative issues. A call schedule to designate an acting director should be utilized when the director is unavailable.	X	X	X
The Stroke Medical Director is a physician leader, on the hospital staff, with sufficient knowledge in cerebrovascular disease and experience caring for stroke patients, licensed in NYS, and Board-Certified in Family Medicine, Internal Medicine, Emergency Medicine, Neurology, Neuroradiology, or Neurosurgery.	X		
The Stroke Medical Director is a physician leader, on the hospital staff, with extensive experience and expertise in neurology and cerebrovascular disease, licensed in NYS, and Board-Certified in Neurology, Vascular Neurology, Critical Care, Neuro-Critical Care, Interventional Neuroradiology, or Neurosurgery.		X	X
The Stroke Medical Director only serves a single Comprehensive Stroke Center			X

	Stroke Center Level		
	PSC	TSC	CSC
Pre-Hospital Services (EMS)			
Documents and monitors pre-notification by EMS of all suspected stroke patients	X	X	X
Has a QI process for providing education and feedback on the pre-notification process and outcomes to local EMS agencies at a predetermined frequency	X	X	X
24/7 Provider Availability – The following providers must be available 24/7 and within the time frames indicated:			
Acute Stroke Team <ul style="list-style-type: none"> Composition is defined by the hospital but must include an individual that is privileged to make treatment decisions At bedside within 15 minutes of patient arrival/activation 	X	X	X
Neurologist <ul style="list-style-type: none"> Must be available in person or via telemedicine (see definition of telemedicine under <i>Availability of Specialized Assessments and Services</i>) within 15 minutes of the request for initial assessment and/or for treatment decisions **Primary Stroke Centers may designate a physician who has experience in the treatment and diagnosis of ischemic stroke when a board-certified neurologist is not available 	X**	X	X
Emergency Medicine Physicians and Nurses trained in the administration and monitoring of IV thrombolytic ²	X	X	X
Diagnostic Radiologist with complex stroke experience and/or a physician privileged to interpret CT, CTA, and MRI of the brain	X	X	X
Physicians with training in critical care or neurocritical care for managing the care of complex stroke patients in the designated neurointensive care unit or designated intensive care beds.		X	X
Stroke Unit Nursing Care <ul style="list-style-type: none"> Nursing staff on the stroke unit (monitoring stroke beds) are under the clinical direction of a Registered Nurse who by education, training, and experience is qualified to direct nursing care to the stroke population Nurses working on a stroke unit or ICU for complex stroke patients are knowledgeable in NIHSS 	X	X	X
Radiology Technician able to perform CT/CTA	X	X	X
Radiology Technician able to perform MRI/MRA/CA		X	X
Vascular Neurologist, who is fellowship trained		X	X
Neurointerventionist: All neurointerventionists (those who take call to perform emergency mechanical thrombectomy) must:		X	X

² For hospitals that meet criteria outlined in Title 10 NYCRR 405.19 (d)(1)(ii) (those with less than 15,000 unscheduled emergency visits per year), the supervising or an attending physician need not be present but shall be available within 30 minutes of patient presentation, in person or by telemedicine, provided that at least one physician, nurse practitioner, or licensed physician assistant shall be on duty in the emergency service 24 hours a day, seven days a week. The hospital shall develop and implement protocols specifying when physicians must be present.

	Stroke Center Level		
	PSC	TSC	CSC
<ul style="list-style-type: none"> • Be available by phone with access to images within 10 minutes of contact and on site within 30 minutes of team activation • Have performed, as the primary operator, at least 15 mechanical thrombectomies over the past 12 months or at least 30 over the past 24 months (in evaluating the number of mechanical thrombectomies performed, procedures performed at hospitals other than the one applying for certification can be included in the total). • Be Committee on Advanced Subspecialty Training (CAST) certified or meet all the following criteria: • completed an Accreditation Council for Graduate Medical Education (ACGME) accredited or equivalent residency in neurosurgery, neurology, or radiology, and • completed a stroke or neurocritical care fellowship (for neurologists) or neuroradiology fellowship (for radiologists) supervised by ACGME, CAST, the United Council of Neurologic Subspecialties (UCNS), or other equivalent oversight body, and • completed neuroendovascular procedure training in a CAST- accredited program or similar training program. 			
<p>Endovascular Team must be onsite (including neurointerventionist) within 30 minutes of team activation. The endovascular team should perform mechanical thrombectomies together as frequently as possible. The team must consist of at least:</p> <ul style="list-style-type: none"> • One endovascular RN, • One endovascular catheterization laboratory technician, and • A physician privileged to perform mechanical thrombectomy 		X	X
General Neurosurgeon on call 24/7 to respond to complications of mechanical thrombectomy		X	
<p>Neurosurgeon with expertise in cerebrovascular surgery on call 24/7</p> <ul style="list-style-type: none"> • Surgeon, neurosurgeons, and other neurosurgical staff are available on site within 30 minutes of notification to perform and support the performance of emergency neurosurgical procedures 24/7 			X
Vascular Surgeon with experience in carotid endarterectomy			X
Availability of Specialized Assessments and Services			
PT and OT are available as needed	X	X	
PT and OT are available 6 days a week and on-call on the 7 th day to perform patient assessment during the acute stroke phase			X
SLP is available as needed. However, the Stroke Center must have staff with the ability to perform a bedside swallowing screen 24/7. This can be done by a SLP, or other staff trained to perform a bedside swallow screen	X	X	X
All inpatient stroke patients (unless transferred to another acute care facility or hospice) must be assessed for rehabilitation services	X	X	X
Nurse case managers and social workers with expertise in neurology/stroke care, care coordination, different levels of rehabilitation, and community resources are available	X	X	X
The rehabilitation services are directed by a physician with expertise and experience in neurorehabilitation			X

	Stroke Center Level		
	PSC	TSC	CSC
If utilized for consultation, telemedicine is available 24/7 and able to be connected within required time parameters. Telemedicine is defined as two-way audio and visual communication when there is a need to view the patient for the initial assessment or to make treatment decisions. Otherwise, telemedicine can be via audio communication only.	X	X	X
Neurosurgical Availability and/or Coverage			
Written documentation shows evidence of neurosurgical coverage or protocol for transfer to an appropriate facility with 24/7 neurosurgical capabilities.	X	X	
General neurosurgery coverage that can respond onsite 24/7.		X	
24/7 operating room availability with capacity and staff availability to handle a general neurosurgery case and a stroke at the same time.			X
Surgeons, neurosurgeons, and other neurosurgical staff are available on site within 30 minutes of notification to perform and support the performance of emergent neurosurgical procedures 24/7.			X
Transfer Agreement³			
Written transfer protocol and transfer agreement with at least one facility capable of providing timely neurosurgical, cerebral endovascular, and neuro ICU services 24/7. <ul style="list-style-type: none"> PSC/TSC must, at a minimum, have a transfer agreement with at least one CSC. The TSC shall have a transfer agreement with referring PSCs within their catchment area for 24/7 receipt of patients needing cerebral endovascular services. If there is an accessible TSC, the PSC may wish to have a transfer agreement with the TSC for timely endovascular services in addition to the agreement with a CSC.	X	X	
Transfer agreements for receiving and transferring facilities at a minimum must address: <ul style="list-style-type: none"> 24/7 emergency contact information of acute stroke team and/or receiving team at the receiving facility authorized to accept transfers. The ability of the sending facility to transfer the patient and the ability of the receiving facility to accept the transferred patient 24/7. The ability to affect a transfer in a timely manner as appropriate for patient needs (target timeframe for transfer must be identified in the transfer agreement for both neurosurgical and endovascular services). Clinical criteria for transfer and processes for obtaining consultation for transfer decisions. Expectations/criteria for advanced imaging prior to transfer, including CTA/CTP or other imaging modalities, and time frame for diagnostic service completion and image sharing processes (images at sending facility must be shared with receiving facility before or upon transfer). 	X	X	X

³ Hospitals can demonstrate required elements of the transfer agreement through references in the transfer agreement to hospital policies and procedures that incorporate these elements. Policy and procedure documents should be appended to the transfer agreement.

	Stroke Center Level		
	PSC	TSC	CSC
<ul style="list-style-type: none"> The transfer agreement shall clearly delineate which facility has responsibility for performing a CTA (the sending or receiving facility) and under which clinical circumstances. The imaging capabilities of the sending facility must be clearly articulated in the agreement. Plans for the triage and transport of suspected stroke patients including, but not limited to, those patients who may have an emergent large vessel occlusion, to an appropriate facility within a specified time. 			
The Stroke Center has a contract with a transportation vendor that covers expeditious transfer by both ground ambulance and air ambulance transfer options as applicable.	X	X	X
Has a transfer agreement with referring TSCs and PSCs within their catchment area for intake purposes. The CSC must identify another CSC that they will transfer to when case complexity determines that further specialized care is needed, or high volume exceeds resources dictating a need for transfer. This can be identified through a policy document, such as a surge policy, and does not need to be in the form of a transfer agreement.			X
Availability of Diagnostic Services			
Neuroimaging			
CT available 24/7 <ul style="list-style-type: none"> Initiate neuroimaging (brain imaging) within 25 minutes of patient arrival. Read by a diagnostic radiologist or physician privileged to interpret CT neuroimaging within 45 minutes of patient arrival. 	X	X	X
MRI: Recommended (not required) to be available and utilized when clinically indicated. Administration of IV thrombolytic or transfer for definitive care for acute stroke should not be delayed for MRI.	X		
MRI: Required to have the capability to perform and read an MRI 24/7 when clinically indicated.		X	X
Vascular Imaging			
CTA: 24/7 CTA of the head and neck to assess for a large vessel occlusion and identify candidates for endovascular therapy. CTA imaging must be able to be read by a diagnostic radiologist or physician privileged to interpret CTA within 45 minutes of patient arrival either on-site or through teleradiology. Administration of IV thrombolytic or transfer for definitive care for acute stroke should not be delayed for CTA.	X	X	X
MRA: Must be able to perform and read MRA 24/7. Administration of IV thrombolytic or transfer for definitive care for acute stroke should not be delayed for MRA.		X	X
CA: Must be able to perform and read CA 24/7		X	X
CTP: Must be able to perform and read CTP 24/7.		X	X
Other Imaging (available when clinically indicated)			
TTE	X	X	X
Carotid Duplex Ultrasound, Extracranial Ultrasonography, Transcranial Doppler, TEE		X	X
Treatments, Services and Procedures (24/7 Availability)			
IV Thrombolytics	X	X	X

	Stroke Center Level		
	PSC	TSC	CSC
IA Thrombolytics		X	X
Mechanical Thrombectomy		X	X
Microsurgical Neurovascular clipping of aneurysms, Neuroendovascular coiling of brain aneurysm, Stenting of extracranial carotid arteries, Carotid endarterectomy			X
Laboratory and Pharmacy (24/7 Availability)			
Laboratory studies must be obtained, run, resulted, and communicated to the requesting practitioner <u>within 45 minutes</u> of patient arrival. Laboratory capability must include, but is not limited to: Complete blood count, Blood Glucose, Coagulation studies (International Normalized Ratio, Prothrombin Time, Activated Partial Thromboplastin Time), Troponin, Blood chemistries, Pregnancy test, and Drug toxicology, as clinically indicated	X	X	X
Pharmacy: Formulary must include availability of IV thrombolytic 24/7	X	X	X
Stroke Unit/ICU			
Stroke unit or designated stroke beds with the capability to monitor acute stroke patients continuously and simultaneously. The stroke unit has sufficient equipment and supplies to provide an appropriate level of care for the stroke population, including multi-channel telemetry capable of monitoring blood pressure, pulse, respiration, and oxygenation.	X	X	X
Designated neurointensive care unit or designated intensive care beds for the care of complex stroke patients available 24/7		X	X
Stroke Education			
The CEO/CMO or other individual able to bind the organization may attest to staff completion of education as evidence of satisfying this requirement. The following staff must complete <u>8 hours of stroke-focused education on an annual basis</u> : <ul style="list-style-type: none"> Members of the Acute Stroke Team (or any staff anticipated to serve as a member of the acute stroke team) Nurses in the stroke unit Stroke Medical Director Stroke Coordinator <p>The Stroke Center may determine the content and objectives of the education. Educational content should improve stroke care and may include, but is not limited to:</p> <ul style="list-style-type: none"> Health system or hospital specific educational components. Review of new literature Evidence-based practices Hospital based quality improvement initiatives related to stroke 	X	X	X
The Stroke Center provides annual training and education, including a formal orientation, on evidenced-based acute stroke assessment and recognition of signs and symptoms of stroke, management of stroke patients, and protocol for	X	X	X

	Stroke Center Level		
	PSC	TSC	CSC
the activation of the acute stroke team, for all nurses, physicians, and midlevel practitioners providing care in the emergency department, acute stroke unit, intensive care unit (ICU), and catheterization laboratory.			
Patient education materials about stroke are provided to all stroke and TIA patients and/or their family/caregivers and documented in the medical record. Educational materials should be tailored to the patient and family/caregiver (i.e., be culturally appropriate, available in multiple languages, and at the appropriate reading level) and must address all of the following: risks and benefits of IV thrombolytic, personal risk factors, warning signs for stroke, activation of emergency medical system, need for follow-up after discharge, and medications prescribed.	X	X	X
Two (2) evidence-based public education activities (e.g., Hip-Hop Stroke) with a focus on stroke prevention, done annually with data on type and numbers reached reported to the certifying organization. Public education and health promotion may also focus on diagnosis, secondary prevention, and/or the availability of acute therapies.	X	X	X
Performance Measures and Quality Improvement			
The Stroke Center must have an internal QI group specific to stroke care that meets at least monthly with recorded minutes. This group is minimally expected to review stroke quality benchmarks, indicators, evidence-based practices, patient outcome data (e.g., mortalities, etc.), and delays in patient care, and take actions as necessary. The Stroke Center must have an interdisciplinary team with a peer review process that includes the stroke medical director, stroke coordinator and a quality facilitator charged with conducting quality reviews.	X	X	X
Must have a quality representative that is responsible for monitoring requirements of the program. There must be a written document defining quality review processes, how to measure objectives and goals and how to engage PSCs and TSCs in regional quality improvement initiatives.			X
Must participate in IRB-Approved Patient-Centered Stroke Research.			X
Maintains a stroke log that includes response times, along with patient diagnoses, treatments, and outcomes.	X	X	X

Table B: NYS Performance Measures and Time Targets

Performance Measures	Measure Steward	PSC	TSC	CSC
NYS PSC 1: VTE prophylaxis	GWTG Achievement	X	X	X
NYS PSC 2: Discharge on antithrombotic therapy	GWTG Achievement	X	X	X
NYS PSC 3: Anticoagulation therapy for AFIB/Flutter	GWTG Achievement	X	X	X
NYS PSC 4: Thrombolytic therapy (arrive by 3.5 hours, treat by 4.5 hours)	GWTG Achievement	X	X	X
NYS PSC 5: Antithrombotic therapy by end of hospital day two	GWTG Achievement	X	X	X
NYS PSC 6: Discharged on statin medication	GWTG Achievement	X	X	X
NYS PSC 7: Stroke education	GWTG Quality	X	X	X
NYS PSC 8: Smoking cessation	GWTG Achievement	X	X	X
NYS PSC 9: Assessed for rehabilitation	GWTG Quality	X	X	X
NYS PSC 10: Dysphagia screening	GWTG Quality	X	X	X
NYS PSC 11: Initial NIHSS reported	GWTG New York State	X	X	X
NYS PSC 12: mRS on discharge	GWTG Reporting	X	X	X
NYS PSC 13: Pre-notification: Percent of cases of advanced notification by EMS for patients transported by EMS from scene	GWTG Reporting	X	X	X
NYS PSC 14: EMS Pre-Hospital Stroke Scale: Percent of patients arriving via EMS who had pre-hospital stroke scale performed	GWTG New York State	X	X	X
NYS PSC 15: Pre-notification content	GWTG New York State	X	X	X
NYS PSC 16: Stroke Team Activated Prior to Arrival: Percent of patients arriving via EMS for whom the stroke team was activated prior to patient arrival based upon EMS pre-notification	GWTG New York State	X	X	X
NYS PSC 17: Door to MD/DO (can include midlevel) assessment (10 minutes)	GWTG New York State	X	X	X
NYS PSC 18: Door to Stroke Team (15 minutes)	GWTG New York State	X	X	X
NYS PSC 19: Door to Brain Image Initiated (25 minutes)	GWTG New York State	X	X	X
NYS PSC 20: Door to Brain Image Read (45 minutes)	GWTG New York State	X	X	X
NYS PSC 21: Door to IV thrombolytic (60 minutes)- 85%	GWTG Quality	X	X	X
NYS PSC 22: Door to IV thrombolytic (45 minutes)- 50%	GWTG Reporting	X	X	X
NYS PSC 23: Door-in-door-out time at first hospital prior to transfer for acute therapy (≤ 90 minutes)	GWTG Standard	X	X	X

NYS TSC 1: mRS at 90 days: documented	The Joint Commission (CSTK-02)		X	X
NYS TSC 2: mRS at 90 days: following mechanical endovascular reperfusion therapy, favorable outcome	The Joint Commission (CSTK-10)		X	X
NYS TSC 3: Hemorrhagic transformation (overall rate)	The Joint Commission (CSTK-05)		X	X
NYS TSC 4: Mechanical Endovascular Reperfusion Therapy for Eligible Patients with Ischemic Stroke	GWTG MER		X	X
NYS TSC 5: Thrombolysis in Cerebral Infarction (TICI post treatment reperfusion grade)	The Joint Commission (CSTK-08)		X	X
NYS TSC 6: NIHSS at Discharge	GWTG New York State		X	X
NYS TSC 7: Timeliness of reperfusion: arrival time to TICI 2B or higher (120 minutes)	The Joint Commission (CSTK-11)		X	X
NYS TSC 8: Timeliness of reperfusion: skin puncture to TICI 2B or higher (60 minutes)	The Joint Commission (CSTK-12)		X	X
NYS TSC 9: Door to Puncture Time	The Joint Commission (CSTK-09)		X	X
NYS TSC 10: Imaging to Puncture Time	GWTG MER		X	X
NYS CSC 1: Severity measurement for SAH and ICH	The Joint Commission (CSTK-03)			X
NYS CSC 2: Nimodipine treatment within 24 hours	The Joint Commission (CSTK-06)			X

Contact Information for Measure Specifications:

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The Joint Commission

https://www.jointcommission.org/specifications_manual_joint_commission_national_quality_core_measures.aspx