2024 EDITION

ACHC®

CERTIFICATION REQUIREMENTS FOR
STROKE READY CENTERS

STROKE READY
ACHC
CERTIFICATION

ACHC is dedicated to delivering the best possible experience and to partnering with organizations and healthcare professionals that seek accreditation and related services.

Foreword

How We Work

Accreditation Commission for Health Care, Inc. (ACHC) offers healthcare organizations an objective, standards-based review of the services they provide using an educational approach. We support improvement in patient care and safety by sharing knowledge and expertise.

Our goal is to help each organization maximize its potential to improve outcomes for specific patient populations. The ACHC process supports customer success before, during, and after the on-site survey.

Each organization is assigned an Account Advisor to serve as the primary point of contact with our office. Your advisor will answer process and billing questions, provide helpful timeline and documentation resources, and serve as your contact when reporting changes within your program.

Clinical professionals experienced in Stroke Care Programs are available to answer questions and provide guidance. They are easily accessible by phone or email (certification@achc.org) to respond to questions about applicability of standards or interpretation of requirements, and will work with you post-survey to understand deficiencies identified by surveyors and how to develop an effective plan of correction.

Using the Manual

We recommend that you use this manual as a tool for on-going self-assessment of your program's adherence to the standards. This ensures that you are always ready for external review and avoids the need for a flurry of "ramp up" activities in anticipation of a survey. More importantly, periodic self-assessment supports a culture of quality with regard to your ability to render care, treatment, and services safely and effectively. At their core, these standards represent a validated risk-reduction strategy for your Stroke Program. Compliance with the standards will not prevent every adverse event but will diminish the likelihood of their occurrence.

Standards Format

The standards for Stroke Ready Certification are presented in three sections: Governance Functions, Clinical Functions, and Support Functions. Each standard includes four components:

1
2 **STANDARD AND SCORING**
This is the requirement, written broadly to acknowledge that organizations may find a variety of ways to achieve compliance and the scored evaluation of that compliance.

3 **REQUIRED ELEMENTS**
This amplification of the standard provides further detail about its intent and decribes what is expected to demonstrate compliance.

4 **SURVEY PROCEDURE**
This identifies what ACHC Surveyors will review to assess compliance.

EXAMPLE

01.00.01 LICENSURE *(formerly 01.00.03)*   **2** ☐ Compliant ☐ Not Compliant

1 **STANDARD**   Notes

The organization is appropriately licensed and Medicare-certified and/or accredited.

3 **REQUIRED ELEMENTS**

Licensure and accreditations/certifications are posted, if posting is required.

Documentation on agency letterhead confirms the organization's current state license, Medicare certification, and other applicable accreditation(s). Laboratory accreditation and radiology accreditation are required.

4 **SURVEY PROCEDURE**

Source of evidence for compliance: Document Review
Verify, at minimum:
- Current state license.
- Current Medicare and/or accreditation certificate

Scoring

Each standard is identified as Compliant or Not Compliant. Some standards may include an additional option of N/A (not applicable) based on the scope of services offered by the stroke center.

COMPLIANT indicates that there is evidence that the facility fully meets the requirement.

NOT COMPLIANT indicates there is less than full compliance with the requirement or no evidence of compliance with the requirement.

NOT APPLICABLE indicates that the standard does not apply to the facility being surveyed.

Reference to Days

Time frames indicated in "days," refer to calendar days. When the time frame is limited, i.e., Monday through Friday, we will use the term "business days."

Acknowledgments

Table of Contents

STROKE READY CERTIFICATION STANDARDS

Stroke Ready Certification Standards Overview

GOVERNANCE FUNCTIONS

01.00	**Strategic Direction**
01.00.01	Licensure
01.00.02	Target Population and Service Delivery
01.00.03	Strategic Plan
01.00.04	Governance Plan
01.00.05	Grievance Process
01.01	**Credentialing**
01.01.01	Medical Director
01.01.02	Medical Staffing
01.02	**Safe Environment**
01.02.01	Safe Environment and Infection Control
01.03	**Social Responsibility**
01.03.01	Health Promotion
01.03.02	Healthcare Partnerships

CLINICAL FUNCTIONS

02.00	**Service Integration**
02.00.01	Emergency Department
02.00.02	For Future Use
02.00.03	For Future Use
02.00.04	Neuroimaging
02.00.05	Laboratory Services
02.00.06	Medication Management
02.00.07	For Future Use
02.00.08	For Future Use
02.00.09	For Future Use
02.00.10	Contracted Telemedicine Services
02.01	**Standards of Care**
02.01.01	Patient Rights
02.02	**Delivery of Care**
02.02.01	Policies, Protocols and Guidelines
02.02.02	Patient Assessment
02.02.03	For Future Use
02.02.04	For Future Use
02.02.05	Discharge Coordination
02.02.06	Patient and Patient Representative Education
02.03	**Responsive Care Systems**
02.03.01	Emergency Medical Services
02.03.02	Clinical Deterioration
02.03.03	Rapid Stroke Response System

SUPPORT FUNCTIONS

03.00	**Staffing Infrastructure**
03.00.01	Nurses, Advanced Practice Nurses and Physician Assistants
03.00.02	Ancillary/Support Services
03.00.03	Orientation and Education
03.01	**Integrated QAPI/RM System**
03.01.01	Quality and Performance Improvement and Risk Management
03.01.02	Data Collection
03.01.03	Clinical Measures
03.02	**Information Management**
03.02.01	Patient Registry
03.02.02	Medical Records

Governance Functions: Strategic Direction

01.00.01 LICENSURE *(formerly 01.00.03)*

☐ Compliant ☐ Not Compliant

STANDARD

The organization is appropriately licensed and Medicare-certified and/or accredited.

REQUIRED ELEMENTS

Licensure and accreditations/certifications are posted, if posting is required.

Documentation on agency letterhead confirms the organization's current state license, Medicare certification, and other applicable accreditation(s). Laboratory accreditation and radiology accreditation are required.

SURVEY PROCEDURE

Source of evidence for compliance: Document Review

Verify, at minimum:

- Current state license.
- Current Medicare and/or accreditation certificate
- Laboratory CLIA certificate of accreditation.
- Radiology certificate of accreditation.

Notes

01.00.02 TARGET POPULATION AND SERVICE DELIVERY

☐ Compliant ☐ Not Compliant

STANDARD

Based on a community assessment, the Stroke Program's service area and target population are defined in writing.

REQUIRED ELEMENTS

A community assessment identifies the needs and prevalence of disease in the area for which the hospital provides stroke support services. Available resources in the area and the capabilities of other local and regional healthcare organizations are assessed. Limitations in resources are identified.

This assessment is used to identify the program's scope and to define the target population. The identified target population should align with the program's mission and reflect its focus and services.

Stroke awareness and wellness education is provided to the public based on community needs. The Stroke Ready Certification is promoted to the public.

Notes

Governance Functions

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- Community needs assessment and area capabilities.
- Alignment of the needs assessment with the scope of services and target audience.
- Community information promoting services offered.

01.00.03 STRATEGIC PLAN *(new)*

☐ Compliant   ☐ Not Compliant

STANDARD

A defined strategic plan supports the Stroke Program and the needs of the patient population.

Notes

REQUIRED ELEMENTS

The hospital outlines a plan for the Stroke Program that includes:

- Mission.
- Target population.
- Level of care, scope of services, and treatments available to support these.
- Core Stroke Program leaders (including, at least, a medical director and stroke coordinator) and team. Program leaders participate in:
  - » Developing the mission and scope of service.
  - » Designing the program to fit within the defined scope.
  - » Establishing patient care policies and protocols.
  - » Defining annual review of policies and protocols.
  - » Evaluating services provided.
  - » Area-wide (e.g., county-level) stroke council if one exists.
- Departments involved in the provision of stroke care.
- Strategic partnerships including, but not limited to:
  - » Services to support continuity of care (such as rehabilitation services and medical supply companies) and to optimize care and patient outcomes.

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- A written plan includes the required elements.

01.00.04 GOVERNANCE PLAN *(formerly 01.00.01)*

☐ Compliant   ☐ Not Compliant

STANDARD

The leadership of the organization demonstrates its commitment to the Stroke Program through its support of certification.

REQUIRED ELEMENTS

Stroke certification is an optional achievement supported by the hospital's administration. Certification must reflect demonstrated support by leadership within the organization.

The hospital's governing body formally adopts ACHC Standards for stroke certification. This may be in the form of a signed service line report or by board meeting minutes indicating approval of ACHC Stroke Ready Certification. This formal commitment is demonstrated at least every three years.

An annual budget is approved for stroke certification that addresses costs of maintaining survey readiness and certification. The annual budget supports:

- Resources and equipment, including neurosurgery, if applicable.
- Staffing.
- Training.

An established organizational structure and reporting relationships for the Stroke Program are identified in an organization chart. Reporting responsibilities of the medical director and program coordinator are included.

The program's medical staff is accountable to the governing body for the care of stroke patients. The medical staff oversees all stroke care practitioners through a peer review process.

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- Written documentation of support for certification of the Stroke Program.
- An annual program budget.
- Defined reporting relationships for the program as indicated by an organization chart.

Notes

01.00.05 GRIEVANCE PROCESS *(formerly 01.00.04)*   ☐ Compliant   ☐ Not Compliant

STANDARD

The organization has a complaint and grievance process specific to the Stroke Program.

REQUIRED ELEMENTS

The organization must have an established process for the timely resolution of complaints and grievances. This may be part of a hospital-wide process, but stroke patients should be identifiable for tracking and trending program-related issues.

The process ensures that complaints are managed effectively, and improvements are identified and implemented.

The process addresses complaints that receive immediate resolution and grievances, defined as complaints that cannot be resolved immediately and are postponed for later resolution, are referred to other staff for later resolution, require investigation, and/or require further action to achieve resolution.

The process ensures, at least:

- Staff access to complaint and grievance protocols.
- Communication of the complaint and grievance process to patients.
- Integration of grievances with the Stroke Program's QAPI plan.

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- A complaint and grievance process addresses how complaints are triaged, escalated, resolved in a timely manner, and documented.
- Complaints and grievances are addressed in the Stroke Program QAPI plan.
- Accessibility of the grievance protocol.
- Evidence of an improvement made as a result of a complaint, if warranted.

Notes

Governance Functions: Credentialing

01.01.01 MEDICAL DIRECTOR ☐ Compliant ☐ Not Compliant

STANDARD

The Stroke Program appoints a qualified physician who is credentialed and privileged by the hospital as its medical director. This individual provides continuous oversight for the Stroke Program.

REQUIRED ELEMENTS

Clinical leadership is provided by the medical director, credentialed and privileged by the hospital, who is knowledgeable in stroke care, and who guides and advises the team. The medical director (or an identified designee) is available 24 hours every day of the year.

The hospital defines "available" by outlining time frames and methods of communication (by phone, in person) that facilitate compliance with stroke quality metrics and state regulations, where applicable.

The medical director completes at least eight continuing medical education (CME) credits in stroke care each year.

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- A medical director is appointed with fixed lines of authority and oversight responsibility for the program.
- Allocation of time and resources by the medical director is adequate to support the scope and complexity of services provided.
- A position description and credentialing documentation for the medical director reflect:
  - » Current licensure and appropriate credentialing.
  - » Eight or more CME credits applicable to the stroke program (scored under standard 03.00.03).
- An on-call schedule indicating medical director/designee coverage.
- Accessibility of the on-call schedule to staff.

Notes

01.01.02 MEDICAL STAFFING

☐ Compliant ☐ Not Compliant

STANDARD

The number and qualifications of credentialed, privileged medical staff are appropriate to the scope of services offered by the program.

REQUIRED ELEMENTS

The provision of efficient, high-quality care depends on the organization's degree of commitment to building the necessary infrastructure. The governing body has established and monitors protocols that ensure a qualified physician is always on-duty or on-call to provide medical care and onsite supervision when needed.

EMERGENCY DEPARTMENT

- An adequate number of qualified providers are available to provide rapid diagnosis and treatment of acute stroke patients.

- The ED staff includes a physician experienced in the diagnosis and treatment of patients with ischemic stroke and intracerebral hemorrhage and the use of IV thrombolytic therapy.

PROVIDERS

Medical Providers:

- Undertake annual education specifically related to diagnosis/ assessment and management of acute stroke/cerebrovascular disease (may be CME/protocol/competency driven).
  Note: Refer to 03.00.03 Orientation and Education for requirements and scoring.

- Are available 24 hours a day, seven days a week. Physicians who can treat are available in-house or via telemedicine within a time frame defined by the hospital to adequately meet stroke performance metrics, unless otherwise specified by state regulations.

- Have been oriented to stroke protocols.

- Have an on-call schedule that is accessible to all departmental staff and providers.

- Include additional credentialed physicians accessible by phone and available 24 hours every day of the year including:

  » Physician(s) with imaging experience in head computerized tomography and brain magnetic resonance imaging.

  » Diagnostic radiologist(s) (maybe via telemedicine).

  » Physician with cerebrovascular experience.

Notes

Notes

REQUIRED ELEMENTS *(CONTINUED)*

PROVIDER QUALIFICATIONS

Individual physicians, APRNs, PAs, and other applicable clinicians, undergo a credentialing process (new appointments or reappointments) consistent with national standards and guidelines.

A separate credentials file is maintained for each individual applicant to ensure that credentialing is complete and that qualifications are relevant to the scope of services provided. The files contain:

- Qualifications/experience/education.
- Documentation of relevant continuing education.
- Current licensure.
- Current National Practitioner Data Bank (NPDB) query.
- Documentation of periodic appraisal.
- Criminal history background check.
- Privileges based on the applicant's credentials and training (including voluntary or involuntary reductions or limitations in scope of practice, if applicable).

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- The organization has staffing patterns in place that define the numbers of qualified providers required to provide patient care.
- Credentials files include all required elements.

Verify, through interviews:

- Physicians have knowledge of:
  - » Stroke protocols and triage of acute stroke.
  - » Assessment, diagnosis, and management of patients with acute stroke.
  - » Treatment options for patients with stroke.

Governance Functions: Safe Environment

01.02.01 SAFE ENVIRONMENT AND INFECTION CONTROL   ☐ Compliant   ☐ Not Compliant

STANDARD

The organization has an Infection Prevention and Control Program and a Safety Program.

REQUIRED ELEMENTS

The Stroke Program complies with and is incorporated into the facility-wide Infection Control and Safety Programs. The organization has adopted current, evidence-based guidelines for safety and infection control.

Patient care areas comply with and are incorporated into the organization-wide safety and infection control plans. Elements include:

- Safety of the physical environment.
- Compliance with life safety codes.
- Medical equipment management.
- Emergency supplies and back-up.
- Infection control.

SURVEY PROCEDURE

Source of evidence for compliance: Observation, Interview, and Document Review

Verify, at minimum:

- Safety and infection control protocols are available in-patient care areas.
- Compliance with protocols is observable.
- The infection control and safety needs of stroke patients are met.

Notes

Governance Functions: Social Responsibility

01.03.01 HEALTH PROMOTION ☐ Compliant ☐ Not Compliant

STANDARD

The service provides at least one educational program to the public each year with a focus on prevention and recognition of stroke and the availability of treatment options and therapies.

REQUIRED ELEMENTS

The stroke center offers community education focusing on stroke prevention, symptom recognition, and care options.

Programs are provided at least once a year and evaluations are collected, analyzed, and used to improve public education.

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- The service provides one community education program each year.
- Program evaluations are collected and analyzed.
- Improvements were made following the evaluation review.

Notes

01.03.02 HEALTHCARE PARTNERSHIPS

☐ Compliant ☐ Not Compliant

STANDARD

The stroke ready center has established a partnership with one or more other stroke ready or smaller community/remote area hospitals to support their patients, and with a primary, thrombectomy or comprehensive stroke center for patients needing a higher level of care. When transferring patients out of this facility, the transfer must be to a stroke center with an equivalent or higher level of stroke care.

REQUIRED ELEMENTS

Partnership agreements with comprehensive, thrombectomy, and primary stroke centers play a key role in timely diagnosis and intervention. In these settings, a stroke protocol can be activated to save time and enhance patient outcomes, for example, the initiation of an IV thrombolytic before patient transfer to a higher level of care.

When developing agreements, the stroke ready center defines time frames for transfer to and from other stroke centers to ensure patient needs are met. Defined time frames should be based on clinical needs, triage, and patient outcomes. Transfer protocols are part of the agreement and include standardized hand-offs to ensure clear and consistent communication between the sending and receiving hospital.

Partnership with a primary, thrombectomy or comprehensive stroke center (with neurosurgical and/or interventional capabilities) is demonstrated by one or more of the following:

- Collaboration in the development and annual review of patient care protocols.
- Collaboration in the development and annual review of education related to acute stroke management.
- Support with prompt diagnosis and treatment of stroke (which may be via telemedicine).
- Transfer of stroke patients when appropriate.
- Clinical communication between hospitals.

The transfer protocol includes:

- Agreement with a facility that has neurosurgery and/or interventional radiology 24 hours a day, seven days a week.
- A written protocol that has been developed collaboratively between the transferring and receiving facilities that ensures safe and efficient patient care.

Notes

SURVEY PROCEDURE

Source of evidence for compliance: Document Review

Verify, at minimum:

- Minutes or other documentation of meetings with outside entities address the required elements.
- Medical records reflect neurology/neurosurgical consult.
- Patient transfers occurred within the defined time frame.
- The standardized hand-off process/information is available and consistent in all files reviewed.

Notes

Clinical Functions: Service Integration

02.00.01 EMERGENCY DEPARTMENT ☐ Compliant ☐ Not Compliant

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STANDARD

The emergency department is staffed with adequate numbers of qualified personnel to meet patient needs. Physicians and registered nurses are onsite 24 hours a day, seven days per week.

REQUIRED ELEMENTS

The treatment of stroke patients requires a multidisciplinary approach. The acute stroke team includes, at minimum, physicians and nurses who are available 24/7.

Emergency department physicians must be available to assess the patient 24/7 and at the bedside within 10 minutes or less, or in accordance with state requirements.

Facilities must develop, adopt, and adhere to care protocols aligned with nationally recognized standards of practice and consistent with all applicable state and federal regulations.

The emergency department has the capacity to continuously monitor the neurological and physiological status (oxygenation, respirations, blood pressure and heart rate/rhythm) of the patient.

The Stroke Ready Program has, at minimum, the following protocols in place:

- Ischemic stroke treatment protocols to address large vessel occlusions (LVO), eligibility criteria for treatment with thrombolytics, and measures to immediately control blood pressure.

- Intracranial hemorrhage (ICH) treatment protocols to immediately control blood pressure and reversal of coagulopathy to be started in the emergency department, when appropriate.

- Patient transfer protocols to a higher level of care, when appropriate. The patient transfer protocol is compliant with the Emergency Medical Treatment and Active Labor Act (EMTALA). A transfer agreement is expected with at least one healthcare organization that offers a higher level of care to stroke patients.

- Defined patient protocols to address critical care services that may be compromised if systems are not functioning properly.

The hospital has a policy and process that is in compliance with applicable state and local regulation for stroke patient diversion that includes:

- Diversion status updates to ensure the most current information is available for patient destination decisions.

- The name and title of the individual (administrator or medical director) who is authorized to complete a diversion request.

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Notes

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REQUIRED ELEMENTS *(CONTINUED)*

- The Stroke Program defines circumstances that require stroke patient diversion, e.g., when the hospital is functioning under its internal disaster policy, or when essential diagnostic CT scanner(s) or MRI equipment are non-functional. The stroke center must notify the EMS agency Stroke Program Manager directly regarding the nature of the failure or equipment issue, and the estimated length of the diversion.

Note: Emergency department saturation is not an acceptable rationale to request stroke diversion.

SURVEY PROCEDURE

Source of evidence for compliance: Observation, Interview, and Document Review

Verify, at minimum:

- Staff/providers are knowledgeable regarding all protocols in the required elements.

- Required policies and protocols are in place and reflect nationally recognized guidelines.

- Staffing is adequate to meet the needs of patients.

- A transfer agreement is in place.

- Patient medical records reflect compliance with established protocols.

- Stroke care, including physiological and neurological monitoring, is consistent with protocols.

Notes

02.00.02 FOR FUTURE USE

02.00.03 FOR FUTURE USE

02.00.04 NEUROIMAGING

☐ Compliant ☐ Not Compliant

STANDARD	Notes
The stroke ready center performs advanced imaging necessary to diagnose or rule out intracerebral stroke or hemorrhagic stroke 24 hours a day, seven days a week.	

REQUIRED ELEMENTS

For acute stroke patients, rapid establishment of an accurate diagnosis is vital and requires brain-imaging studies.

Neuroimaging services for acute stroke patients must always be readily available. All patients with suspected acute stroke receive emergency brain imaging on arrival before initiating any specific therapy to treat stroke. Initial imaging (CT and/or MRI) must be performed, interpreted, and communicated to the provider within 45 minutes or less to successfully meet defined performance metrics for the certification level. Timelines are defined and communicated to the individual(s) responsible for oversight of imaging services.

Neuroimaging services available at the facility include:

- Multimodal CT and/or MRI.

The director and staff of imaging services are educated, committed, and evaluated on services provided to support the Stroke Program. This may be reflected in an agreement or document that outlines services and time frames. The delivery and quality of neuroimaging services related to the Stroke Program is evaluated.

A qualified physician must interpret the neuroimage to form an accurate diagnosis. This physician may be a neurologist, radiologist, or another physician who has demonstrated experience with the interpretation of the head tomography scan or MRI. The qualified physician may be onsite or available through remote access, i.e., telemedicine.

Because the benefit of therapy is time dependent, administration of a thrombolytic in eligible patients should be given before obtaining a follow-up MRI, unless the MRI is the initial imaging modality.

SURVEY PROCEDURE

Source of evidence for compliance: Observation, Interview, and Document Review

Verify, at minimum:

- The neuroimaging service agreement
- Imaging services are available 24/7 and interpreted by a qualified provider.
- Neuroimaging equipment is available at the facility.
- Medical records reflect neuroimaging studies performed and communicated to the provider within the required time frame.

Quality Measure Benchmark

Review the last 12 months of the stroke center's data and verify that the quality measure benchmark is achieved for SM-15 Neuroimaging Studies.

02.00.05 LABORATORY SERVICES

☐ Compliant ☐ Not Compliant

	Notes

STANDARD

The stroke ready center has timely access to laboratory services 24 hours a day, seven days a week.

REQUIRED ELEMENTS

For acute stroke patients, rapid establishment of an accurate diagnosis is vital and requires laboratory services.

For all tests defined by the organization as stroke labs (blood glucose, at minimum), the laboratory has the capacity to perform, interpret, and communicate test results to the provider within 45 minutes, to meet the performance measures defined for this certification level.

The laboratory director and staff are educated on, committed to, and evaluated on laboratory services provided to support the Stroke Program. This may be reflected in an agreement or document that identifies services and time frames. The delivery and quality of laboratory services related to the Stroke Program is evaluated.

Lab services include, but are not limited to:

- Point-of-care blood glucose for assessment of blood glucose prior to the initiation of thrombolytic therapy.

  Note: Per American Heart Association/American Stroke Association (AHA/ASA) for any patient presenting with stroke related symptoms, point-of-care blood glucose must be performed. Results must be available prior to the initiation of thrombolytic therapy.

- CBC.

- Metabolic profile.

- Troponin.

- Hemoglobin A1C.

- Lipid profile.

- International Normalized Ratio* (INR), Prothrombin Time (PT) and Partial Thromboplastin Time (PTT), if clinically indicated.

*If clinically indicated, other tests may be necessary. For example, international normalized ratio, activated partial thromboplastin time, and platelet count, may be necessary if there is suspicion of coagulopathy. Given the extremely low risk of unsuspected abnormal platelet counts or coagulation studies in a population, IV alteplase treatment should not be delayed while waiting for hematologic or coagulation testing if there is no reason to suspect an abnormal test.

SURVEY PROCEDURE

Source of evidence for compliance: Observation, Interview, and Document Review

Verify, at minimum:

- The laboratory service agreement.

- Laboratory services are available 24/7.

- Medical records reflect that laboratory testing is completed within the required time frame.

Quality Measure Benchmark

Review the last 12 months of the stroke center's data and verify that the quality measure benchmark is achieved for SM-14 Laboratory Result.

02.00.06 MEDICATION MANAGEMENT

☐ Compliant ☐ Not Compliant

| | Notes |

STANDARD

The hospital determines the type and quantities of drugs and special-order supplies to be available for the Stroke Program.

REQUIRED ELEMENTS

The stroke center has a required medications list which includes guidelines for use and management of thrombolytic therapy (IV) and anticoagulation reversal agents.

The medications listed are available 24 hours a day, seven days a week.

The acute stroke response clinicians and pharmacy collaboratively develop a written protocol that describes:

- The type and quantity of thrombolytic drugs available immediately (determined by the acute stroke response team leaders).
- Drug storage/temperature controls.
- Physician orders for thrombolytics.
- Transport, delivery, and preparation of required medication.
- Return of unused product to vendor, if applicable.
- Pharmacy department oversight and control of all thrombolytics, regardless of storage location.

Minimally, the following hospital policies and nationally recognized guidelines are available in all areas that provide intravenous thrombolytic therapy for stroke patients:

- Patient eligibility criteria, contraindications/exclusions to thrombolytic therapy.
- Usual thrombolytic dose ranges/rate of infusion.
- Blood pressure management for hypertensive patients before thrombolytic therapy is initiated and throughout their hospitalization. Documentation supports any blood pressure management outside of hospital policy requirements.
- Treatment protocols for inadvertent overdose, drug-related hemorrhage, and medication errors.
- Special equipment/training required for thrombolytic administration and patient neurological and physiological monitoring before, during, and after medication administration.
- Documentation of reason when thrombolytic therapy is not administered to eligible ischemic stroke patients.

The stroke center protocols ensure treatment for thrombolytic-eligible patients in the fastest achievable time frame. The organization defines its goal for administration of IV thrombolytics in as timely and safe a manner as possible within 60 minutes of arrival in the emergency department. The program meets performance measure SM-12A and strives to meet SM-12B and SM-12C.

REQUIRED ELEMENTS *(CONTINUED)*

Notes

- Eligible stroke patients with mild but disabling stroke symptoms are treated within 4.5 hours of ischemic stroke symptom onset or the patient's time last known well or at baseline state.

- Patients eligible for thrombolytic therapy should receive thrombolytics even if mechanical thrombectomy is being considered.

Quality improvement initiatives related to medication management are used to safely increase treatment frequency with IV thrombolytics.

Refer to the Food and Drug Administration, the AHA/ASA, and other nationally recognized, published guidelines for best practice for the development of institutional policies.

Intracerebral Hemorrhage (ICH)

The organization develops patient care policies and protocols for the management of ICH patients including, but not limited to:

- Severe coagulation factor deficiency or severe thrombocytopenia.

- INR elevated due to Vitamin K antagonist (VKA).

- Hypertension treated initially and throughout hospitalization.

SURVEY PROCEDURE

Source of evidence for compliance: Observation, Interview, and Document Review

Verify, at minimum:

- The list of required medications available to the Stroke Program and that medications are available or delivered in a timely manner 24/7.

- Required patient care protocols and policies are developed collaboratively with pharmacy and acute stroke clinicians to align with nationally recognized guidelines.

- Medical records are consistent with facility policies, protocols, and nationally recognized guidelines.

- The pharmacy maintains oversight of all drugs.

Quality Measure Benchmark

Review the last 12 months of the Stroke Program's data and verify that quality measure benchmarks are achieved for:

- SM-4 Thrombolytic Therapy within 4.5 hours
- SM-12A Door-to-Needle Time 60 Minutes
- SM-12B Door-to-Needle Time 45 Minutes
- SM-12C Door-to-Needle Time 30 Minutes

02.00.07 FOR FUTURE USE

02.00.08 FOR FUTURE USE

02.00.09 FOR FUTURE USE

02.00.10 CONTRACTED TELEMEDICINE SERVICES ☐ Compliant ☐ Not Compliant ☐ N/A

STANDARD	Notes

Specialty consultation through contracted telemedicine services is through a credentialed and privileged provider.

REQUIRED ELEMENTS

Services contracted through telemedicine in accordance with state regulation can assist in recommending treatment when onsite expertise is not available.

- Teleradiology systems can offer rapid imaging interpretation in patients with suspected acute stroke to support timely IV thrombolytic administration.

- Telestroke services can triage patients with acute stroke. Consultation with a neurologist, neurosurgeon, or neuro-interventionalist privileged to diagnose and treat stroke must be within the time frame defined by policy. Telemedicine physicians must be credentialed and privileged at the healthcare organization. If the remote healthcare organization is across state lines, the medical staff may need licensure in both states.

When contracted telemedicine is used, the written agreement defines the availability of the service to cover any hours that the hospital does not provide onsite staffing so that resulting coverage is 24 hours a day, seven days a week, and results are ready within the time frames defined by the hospital to meet the quality measure benchmarks.

Training is provided, at minimum, during orientation for personnel involved with telemedicine technology at the patient location.

SURVEY PROCEDURE

Source of evidence for compliance: Interview, Observation, and Document Review

Verify, at minimum:

- The contract agreement provides for appropriate coverage and actual coverage is consistent with the agreement.
- Credential files include:
  - » License to practice medicine in the location of the Stroke Program.
  - » Appropriate credentialing and privileging by the healthcare organization.
- Medical records reflect that telemedicine services are completed within the time frames outlined in the organization's protocol.
- Training on telemedicine technology is provided on orientation.

Note: This standard is scored N/A for a stroke ready center that does not offer telemedicine services.

Clinical Functions: Standards of Care

02.01.01 PATIENT RIGHTS *(formerly 02.01.03)*   ☐ Compliant ☐ Not Compliant

STANDARD

The patient or their representative is notified of their rights.

REQUIRED ELEMENTS

The hospital patient's rights policies and procedures are in accordance with all applicable federal, state, and local regulations.

At minimum, patients have the right to:

- Communication in a language or manner the patient can understand. Interpreter services are provided as the need is identified.
- Formulate and implement advanced directives.
- Full information regarding services and treatment options available.
- Information regarding risks associated with treatment options and consequences of non-compliance with recommended treatment options.
- Consent and withdraw consent for treatment.

Patient rights and responsibilities policies are available to staff.

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- Required policies are established.
- Medical records are consistent with policy.
- Patients understand their rights and treatment options.

Notes

Clinical Functions: Delivery of Care

02.02.01 POLICIES, PROTOCOLS, AND GUIDELINES   ☐ Compliant   ☐ Not Compliant

<div style="float:right">

Notes

</div>

STANDARD

Policies, protocols, and guidelines are current, and evidence based.

REQUIRED ELEMENTS

Policies, protocols and clinical practice guidelines are based on nationally recognized standards of practice, such as the Brain Attack Coalition and/or AHA/ASA guidelines, reviewed annually, and resource references are available to staff.

The stroke medical director participates in policy, protocol development and annual review. [**Note**: Scored at 01.00.03.]

Policy and protocol development includes representatives from the pharmacy, radiology, laboratory, and emergency departments.

Patient care protocols address assessment, management, and monitoring of patients. Protocols include the use of an evidence-based, nationally recognized assessment tool (e.g., the National Institutes of Health Stroke Scale).

Patient care protocols address, at minimum:

- TIA.

- Ischemic stroke.

- Hemorrhagic stroke (intracerebral and subarachnoid hemorrhage).

- Criteria for and administration of IV thrombolytic therapy.

Patient hand-off and transfer protocols and procedures ensure safe and efficient patient care within and between departments and hospitals. Protocols for interhospital transfer are established and approved so that patient transfers can be accomplished at all hours, in the least amount of time.

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- All required stroke policies and protocols are:
  - » Developed using nationally recognized guidelines in collaboration with a multidisciplinary team.
  - » Reviewed annually.
  - » Available to Program staff.

02.02.02 PATIENT ASSESSMENT

☐ Compliant ☐ Not Compliant

	Notes

STANDARD

Assessments are based on current, evidence-based practice guidelines and include time frames, where applicable.

REQUIRED ELEMENTS

Hospital policy defines the assessment elements and time frames for acute stroke patients, in alignment with standards of practice and evidence-based guidelines. Consideration is given to the right patient, right clinician, right assessment, and right time frame.

Assessments are performed by personnel with expertise in the management of acute stroke. When appropriate, and with the consent of the patient (when able), a family member or representative of the patient's choice is involved in the assessment process.

Patients are assessed and monitored for signs of neurological deterioration after stroke using an evidence based standardized neurological assessment tool, such as:

- National Institutes of Health Stroke Scale (NIHSS). Applied, at minimum, on admission and post administration of a thrombolytic.

- Glasgow Coma Scale (GCS) or other baseline severity score used as part of the initial evaluation of patients with intracerebral hemorrhage.

Physiological and neurological assessment, monitoring, and management includes:

- Baseline electrocardiogram assessment (recommended but should not delay initiation of IV thrombolytic).

- Airway support and ventilatory assistance for the treatment of patients with decreased consciousness or who have bulbar dysfunction that causes compromise of the airway.

- Supplemental oxygen provided to maintain oxygen saturation >94%, as medically indicated

- Correction of hypotension and hypovolemia to maintain systemic perfusion levels necessary to support organ function.

- Early treatment of hypertension when required by comorbid conditions.

- Management of hyperglycemia and hypoglycemia.

Dysphagia screening is performed before the patient eats, drinks, or receives any oral medications using a hospital-approved dysphagia screening tool. If a patient fails initial dysphagia screening, a speech pathologist performs a swallow evaluation and provides a recommendation.

SURVEY PROCEDURE

Source of evidence for compliance: Document Review

Verify, at minimum:

- The use of evidence based, standardized, assessment tools.
- Patient assessments are documented per protocol and include all required elements.

Quality Measure Benchmark

Review the last twelve months of the stroke center 's data and verify that the quality measure benchmark is achieved for:

- SM-11 Dysphagia Screening
- SMA-1 NIHSS for Ischemic Stroke

Notes

02.02.03 FOR FUTURE USE

02.02.04 FOR FUTURE USE

02.02.05 DISCHARGE COORDINATION

☐ Compliant   ☐ Not Compliant

Notes

STANDARD

The discharge process is in place and initiated when appropriate.

REQUIRED ELEMENTS

Patients must be evaluated for their readiness for discharge. Consideration is given to their ability to receive required on-going care in the pre-hospital environment, or they must be offered a range of options to consider for post-hospital care. Where possible, the patient and/or their representative is involved in this discussion. The patient's and/or their representative's verbalized understanding of the discharge instructions is assessed and documented in the patient record. Discharge planning policy defines the follow-up process and time frame.

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- Discharge-related documentation is consistent with requirements and protocols/policies.
- The patient/patient representative was included in the discharge planning process and informed of their choices.

02.02.06 PATIENT AND PATIENT REPRESENTATIVE EDUCATION

☐ Compliant   ☐ Not Compliant

STANDARD

The patient care protocols incorporate education for the patient and/or their representative.

REQUIRED ELEMENTS

Stroke education material is provided to patients and documented in the medical record. For situations that inhibit adequate or appropriate patient education, documentation of reason(s) must be evident in the patient's record. When appropriate, the patient representative should receive all required education.

Education is provided to the patient or patient representative, regarding transfer to a higher level of care, when applicable.

Current evidence-based education includes (but is not limited to):

- Diagnosis
- Warning signs, symptoms, and response, including calling 911.
- Recognizing and managing complications.
- Post-discharge instructions and follow-up appointments.
- Medications prescribed at discharge and importance of adherence.
- Risk factors and lifestyle modifications based on individual patient's need, including tobacco use cessation, if applicable.

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- Protocols address patient education requirements.
- Education materials provided to patient/representative.
- Medical record documentation is consistent with policies and protocols.
- Patient/representative understanding of education provided and next steps in patient care.

Notes

Clinical Functions: Responsive Care Systems

02.03.01 EMERGENCY MEDICAL SERVICES (EMS)   ☐ Compliant ☐ Not Compliant

STANDARD	**Notes**

The Stroke Program has established a relationship with the community emergency medical services.

REQUIRED ELEMENTS

Emergency medical services play a key role in the timely recognition, treatment, transfer, and outcomes of stroke patients. EMS providers establish lines of communication with the hospital to provide them with early notification of incoming patients with symptoms of stroke.

Regional systems of stroke care should be developed and identify Comprehensive, Thrombectomy, Primary, and Stroke Ready Programs to and among which rapid transport can be arranged when needed.

A document of cooperation between the Stroke Program and the EMS is in place. This document addresses:

- The written plan for transporting and receiving patients with stroke symptoms via the EMS system. (Refer to applicable state limitations on transit notifications.)

- A priority system for the rapid dispatch of EMS ambulances and crew in response to stroke patients, to minimize transport times.

- Interagency collaboration for development and review of clinical guidelines relative to evaluation, identification, and initial EMS management of patients presenting with symptoms of acute stroke.

- Adoption of a prehospital stroke assessment form such as the National Institutes of Health Stroke Scale, the Los Angeles Prehospital Stroke Screen (LAPSS), or the Cincinnati Prehospital Stroke Scale.

- Transportation to the closest healthcare facility capable of administering thrombolytics when stroke is suspected, or a positive stroke assessment made.

- Criteria for the hospital to be on diversion and unable to accept patients.

- Communication with the stroke center to alert and activate the emergency department/stroke team for incoming patients.

- Management of patients while in transit from one facility to another, post-thrombolytic administration.

The stroke ready center offers EMS stroke training at least once a year. Training may be co-sponsored with other healthcare organizations in the community. Training includes, but is not limited to:

- Identification of stroke patients using a standardized assessment tool.

- Conditions that mimic acute stroke symptoms and management of acute care needs while in transit.

- Clinical communication between the EMS and the hospital emergency department regarding potential stroke patients and ETA.

REQUIRED ELEMENTS *(CONTINUED)*

- Thrombolytic eligibility, such as last time known well (LTKW) within the last 4.5 hours, CT scan negative for bleed, diagnosis of ischemic stroke by physician.

- Management of patients in transit during or post-thrombolytic administration which includes, but is not limited to, neuro checks for changes in neurological status and vital sign assessment.

SURVEY PROCEDURE

Source of evidence for compliance: Observation and Document Review

Verify, at minimum:

- Documentation of cooperation for all required elements.

- Collaboration on the development and review of clinical guidelines and education.

- One EMS educational activity is conducted and evaluated every year.

- EMS provides prehospital notification to the hospital of a suspected stroke patient.

- Assessment and care provided during transport is consistent with written transport plan/document of cooperation.

- Medical records document that a pre-hospital stroke assessment tool is used and the LTKW is documented by first responders, including EMS.

Notes

02.03.02 CLINICAL DETERIORATION

☐ Compliant ☐ Not Compliant

STANDARD

The Stroke Program establishes a system for recognizing and managing clinical deterioration in patients.

REQUIRED ELEMENTS

Patients whose clinical symptoms are deteriorating are identified and timely action is taken to escalate care needs.

A written policy or protocol is developed, and staff are trained to recognize and manage clinical deterioration in patients. The policy/protocol includes, but is not limited to:

- Signs, symptoms, and elements of deterioration, including neurological changes.

- Neurological and physiological parameters including heart rate/rhythm, blood pressure, oxygenation, respirations, temperature, and blood glucose.

- Process to activate the rapid response team.

- Patient monitoring including who, what, how, frequency, and type of monitoring. The process for recording and responding to changes accordingly must be included.

- Transfer process for escalation of care needs (internal and external transfers).

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- Written policy and protocol(s) for recognition and management of clinical deterioration include all required elements.

- Staff knowledge of policy and protocol(s).

Notes

02.03.03 RAPID STROKE RESPONSE SYSTEM   ☐ Compliant   ☐ Not Compliant

	Notes
STANDARD The program has a rapid stroke response team that is available 24 hours a day, seven days a week.	

STANDARD

The program has a rapid stroke response team that is available 24 hours a day, seven days a week.

REQUIRED ELEMENTS

The acute stroke response team members are identified by the hospital but at minimum should include a physician and a nurse.

A written policy defines:

- A list of rapid response stroke team members, their role (according to scope of practice), and their level of accessibility (bedside or telephone) including on-call and staffing requirements.

- The process for activating a stroke code. The stroke alert window should be such that the patient can receive acute interventions as soon as possible, and up until 24 hours since last time known well (LTKW), in order to treat large vessel occlusion (LVO) stroke patients.

- The method used for team notification, e.g., pagers, overhead alert, phones.

- The time frames defined for physician and stroke team arrival to a rapid stroke response code. Time frames align with evidence-based guidelines and outcomes, unless otherwise specified by state regulation. Inpatient physicians may respond by telemedicine or phone call.

  Hospitals can adjust the response times for the physician and stroke team to meet door-to-needle (DTN) times. The AHA Target: Stroke Phase III Suggested Time Interval Goals for door to physician and stroke team are:

  » 30 minute DTN Goal: (SM 12-C)
    o Door-to-physician ≤2.5 minutes
    o Door-to-stroke team ≤5 minutes
  » 45 minute DTN GOAL: (SM 12-B)
    o Door-to-physician ≤5 minutes
    o Door-to-stroke team ≤10 minutes
  » 60 minute DTN GOAL: (SM 12-A)
    o Door-to-physician ≤10 minutes
    o Door-to-stroke team ≤15 minutes

- Patient care processes.

- Consultation with a neurologist, neurosurgeon, or neuro-interventionalist privileged to diagnose and treat stroke (may include telemedicine access) within the hospital's defined time frames for acute stroke rapid response activation to meet the stroke performance metrics.

Note: This standard is intended to address those patients who present to the hospital with symptoms of acute stroke and in-house patients for whom the acute stroke response team is called to assess and intervene.

SURVEY PROCEDURE

Source of evidence for compliance: **Observation and Document Review**

Verify, at minimum:

- Written policies include all required elements.

- Medical record documentation is consistent with requirements and consistent with policies/protocols.

- Personnel files of the rapid response team members reflect qualifications consistent with facility protocols or job descriptions.

Quality Measure Benchmark

Review the last twelve months of the stroke center's data and verify that the quality measure benchmark is achieved for SM-13 Stroke Team Arrival.

Notes

Support Functions: Staffing Infrastructure

03.00.01 NURSES, ADVANCED PRACTICE NURSES, AND PHYSICIAN ASSISTANTS

☐ Compliant ☐ Not Compliant

STANDARD

The stroke ready center has nurses, advanced practice nurses, and physician assistants appropriate to the scope of services offered.

REQUIRED ELEMENTS

A supportive staffing infrastructure is demonstrated through the availability of an adequate number of qualified staff to provide rapid diagnosis and treatment of patients. Hospital and stroke specific protocols identify core staffing needs to support patient care. Patient needs and the nursing staff to meet those needs are continuously evaluated. Staffing schedules reflect the number and qualifications of staff adequate to meet variations in volume, complexity, and intensity of services.

Note: Refer to staffing plan requirements in the following standard:

- 02.00.01 Emergency Department

Nursing staff are competent in:

- Hemodynamic assessment and monitoring.
- Neurologic assessment and monitoring.
- Nursing care of patients receiving thrombolytic therapy.
- Initial management of intravenous vasopressor, antihypertensive, and positive inotropic agents.
- Respiratory management using invasive and non-invasive ventilation.
- Initial management of hemorrhagic stroke (intracerebral and subarachnoid hemorrhage).
- Thrombolytic preparation.

Nursing personnel files include:

- Qualifications/experience/education.
- Documentation of relevant continuing education.
- Current licensure, where applicable.
- Job description.
- Criminal history background check, based on hospital policy and applicable laws.
- Annual appraisal and evaluation of competencies.

Notes

REQUIRED ELEMENTS *(CONTINUED)*

Advanced practice nurses and physician assistants privileged by the hospital offer (when applicable):

- Consultation and support for care delivery, including assessments and management of care.

- Participation in the development and delivery of education for clinicians.

Note: For APRN and PA credentialing file requirements see standard 01.01.02 Medical Staffing.

SURVEY PROCEDURE

Source of evidence for compliance: Observation, Interview, and Document Review

Verify, at minimum:

- Staffing protocols and schedules are in place and correlate to the number and acuity for stroke patients.

- Through review of assignment mechanisms and interviews with managers and staff that staffing protocols are implemented and followed.

- Personnel files indicating appropriate licensure, credentials, and qualifications for staff delivering stroke care.

- Nurse personnel files include all required elements.

Notes

03.00.02 ANCILLARY/SUPPORT SERVICES

☐ Compliant   ☐ Not Compliant

STANDARD

The ancillary/support staffing of the Stroke Program is appropriate to the scope of services offered.

REQUIRED ELEMENTS

A supportive infrastructure is demonstrated through the availability of qualified ancillary/supporting staff in adequate numbers to treat patients within the appropriate time frames.

The ancillary/support staff (e.g., laboratory and radiology technicians) is knowledgeable in management and care of acute stroke/cerebrovascular disease specialty practices and techniques.

All ancillary/support staff require:

- Current licensure, as applicable.
- Documented qualification/experience/education.
- Orientation to the organization and its stroke policies and protocols.
- Job description.
- Criminal history background check.
- Annual performance appraisal and evaluation of competencies.
- Education specific to acute stroke/cerebrovascular disease. (See standard 03.00.03.)

SURVEY PROCEDURE

Source of evidence for compliance: Observation, Interview, and Document Review

Verify, at minimum:

- Employee records for Stroke Program staff include all required items.
- Staff education and competencies in Stroke Program protocols.
- Staffing ensures availability and accessibility according to the requirements.

Notes

03.00.03 ORIENTATION AND EDUCATION

☐ Compliant ☐ Not Compliant

STANDARD

Education needs are identified by the Stroke Program and incorporated into an annual education calendar.

REQUIRED ELEMENTS

The professional staff, including physicians, fellows, nurses, physician assistants, and ancillary/support staff, receive annual education in order to remain current with advancements in the treatment of acute stroke.

- Education must be specifically related to diagnosis/assessment and management of acute stroke/cerebrovascular disease (may be protocol/competency driven or otherwise specified by the Stroke Program).

Note: Specialty education credit is NOT given for Advanced Cardiovascular Life Support training.

- Physicians are educated in IV thrombolytic protocols including indication, monitoring and education for patient/patient representative.

- Annual competency in National Institutes of Health Stroke Scale (NIHSS) must be incorporated into the education program for those performing the NIHSS assessment. Providers and nurses who do not perform the NIHSS assessment receive annual education.

- The hospital monitors staff education and competency.
  - » At least 80% of staff in each category must have completed the education requirements.

Team role	CME/CEU or equivalent hours
Stroke Program medical Director	8
Identified core Stroke Program leaders	8
All acute stroke rapid response team members	4
Doctors, nurses and physician assistants who work in: ED	4
Other ancillary/support staff who manage stroke patient care (case management, social work)	2
Laboratory and radiology technicians	Orientation to Stroke Protocols

Notes

SURVEY PROCEDURE

Source of evidence for compliance: **Interview and Document Review**

Verify, at minimum:

- Identified educational needs.

- Education program content meets the requirements.

- Annual calendar of education activities.

- Physician education on thrombolytic protocols.

- Personnel/credential files reflect completion of required annual stroke education and CME/CEU requirements.
  Note: Education documented as scheduled, that has not yet occurred, may be considered when assessing compliance.

Notes

Support Functions: Integrated QAPI and Risk Management System

03.01.01 QUALITY AND PERFORMANCE IMPROVEMENT AND RISK MANAGEMENT   ☐ Compliant   ☐ Not Compliant

STANDARD	Notes

An ongoing, effective quality plan is in place to monitor and manage clinical risks and quality improvement activities specific to the Stroke Program.

REQUIRED ELEMENTS

A process is in place to identify, measure, analyze, and track quality indicators, medical errors, and adverse events in the care of acute stroke patients. Each incident is an opportunity for education and learning for the individual and area of involvement.

This process includes development and review of an annual stroke QAPI plan that addresses:

- Progress towards internal and external benchmarks.
- Progress towards at least two patient care QI activities.
- Stroke measures and indicators.
- Adverse events/outcomes.
- Compliance with care protocols.
- Stroke patient satisfaction, complaint, and grievances.
- Outcomes from the peer review process, if quality improvement needs are identified.
- Evaluation of contracted services that support the Stroke Program.

The stroke ready center has a multidisciplinary stroke QAPI committee. The program assigns the committee leader and membership. The scope and functions of the QAPI committee are defined in writing and there is a reporting/accountability mechanism linked to the hospital-wide QAPI plan.

- This committee reviews and monitors stroke care quality benchmarks, indicators, evidence-based practices and outcomes. Gaps in care and performance measures below benchmarks are identified and specific interventions are initiated to address these issues.
- Meeting participants include the Stroke Program medical and clinical directors, prehospital care providers, stroke care coordinators (when possible), stroke/provider educators, ED physicians and personnel.
- Meetings are held quarterly, at minimum.
- Meeting minutes and an attendance roster are maintained and available for review.
- Minutes reflect review, analysis, trending, and actions taken for performance measures meeting benchmark.

Notes

REQUIRED ELEMENTS *(CONTINUED)*

The Stroke Program selects at least two quality improvement (QI) activities each year that focus on improving patient care, improving outcomes, and/or minimizing delays in care. Corrective actions taken as a result of the QI activities are evaluated for effectiveness. When re-measurement indicates the corrective actions have not met the desired result, additional corrective actions and re-measurement occur until the desired result is achieved.

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- An annual QAPI plan with established internal and external benchmarks for comparison is approved by the stroke QAPI committee.

- The stroke QAPI committee meets quarterly and demonstrates review of data to identify performance that falls below the benchmark. Plans are implemented to improve performance to meet the required benchmarks.

- The committee selects at least two improvement activities each year.

- The plan addresses all quality data elements listed and reflects action taken to improve performance where indicated.

- A process for reviewing the care of stroke patients and a formal process and structure for peer review are in place.

Note: Stroke measures and indicators that fall below the benchmark are scored under the applicable standard.

- If a measure falls out as an isolated event, it is not cited.

- If a measure falls out three months in a row, or more than four months in a year, it is cited under the related standard.

- If the stroke program is unable to sustain improvement three or more quarters in a row above the benchmark, it is cited under both the related standard and 03.01.01.
  Exclusion: Improvement must be sustainable. If it is maintained up to three consecutive quarters prior to the onsite visit, the hospital will not be cited as non-compliant for the related standard or 03.01.01, i.e., both standards are scored as compliant.

03.01.02 DATA COLLECTION

☐ Compliant ☐ Not Compliant

STANDARD

There is a clinical data management process in place.

	Notes

REQUIRED ELEMENTS

The program demonstrates that care provided for patients meets the standards of practice and hospital policy for care of acute stroke.

A clinical data management/utilization review process defines:

- Type of data collected, including but not limited to:
  - » Complication rates, as applicable.
  - » Adverse events.
- How data are collected.
- How data are analyzed.
- How data are reported.
- How the data are used to improve patient care.

Stroke data are aggregated, trended, and analyzed to identify opportunities to improve complication rates, mortality rates, and adverse events. There is a process in place to provide timely feedback and recommendations for improvement.

Corrective actions are documented and reviewed to measure sustainability.

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- There is a data management/utilization review process in place.
- Meeting minutes and quality reports indicate data collection, trending, analysis, reporting, and actions taken if needed.

03.01.03 CLINICAL MEASURES

☐ Compliant   ☐ Not Compliant

STANDARD

The Stroke Program collects data on performance measures and indicators that are incorporated into the QAPI plan and submitted to ACHC.

REQUIRED ELEMENTS

Stroke Ready Center Performance Measures (see pages 46-54).

SM-4	Thrombolytic Therapy within 4.5 hours	SM-13	Stroke Team Arrival
SM-11	Dysphagia screening	SM-14	Laboratory Result
SM-12A	Door-to-Needle Time, 60 minutes	SM-15	Neuroimaging Studies
SM-12B	Door-to-Needle Time, 45 Minutes	SMA-1	NIHSS for Ischemic Stroke
SM-12C	Door-to-Needle Time, 30 Minutes		

Note: If the hospital submits data to GWTG/PCR, it may submit the GWTG/PCR report plus the number of stroke patients per month to ACHC in place of the ACHC data tool.

SURVEY PROCEDURE

Source of evidence for compliance: Interview and Document Review

Verify, at minimum:

- Clinical measures are collected as required.

Note: If the hospital collects and submits all required data, this standard is scored as compliant regardless of specific results.

Notes

Support Functions: Information Management

03.02.01 PATIENT REGISTRY ☐ Compliant ☐ Not Compliant

STANDARD

A registry of all patients who are evaluated and diagnosed with an ischemic stroke, hemorrhagic stroke, or TIA is maintained.

REQUIRED ELEMENTS

A registry of patients is available that includes, but is not limited to:

- Patient identifier.
- Diagnosis.

The Stroke Program documents and tracks at least:

- Time of the initial call from EMS (or other source) of imminent arrival of a patient with acute stroke symptoms.
- Time the acute stroke response team alert was activated (or time of triage if patient presents to the emergency department).
- Time the first acute stroke response team member arrived at the bedside.
- Stroke assessment score (e.g., NIHSS)
- Treatments administered.
- Response to/outcome of treatment including complications.

SURVEY PROCEDURE

Source of evidence for compliance: Document Review

Verify, at minimum:

- The registry and other supporting documents address the required elements.

Notes

03.02.02 MEDICAL RECORDS

☐ Compliant   ☐ Not Compliant

STANDARD	Notes

Medical records containing all relevant information regarding patient care are retained and securely stored.

REQUIRED ELEMENTS

"Medical records" includes written documents, computerized electronic information, radiology film and scans, laboratory reports, videos, audio recordings, and other forms of information regarding the condition of a patient.

Medical records are retained in compliance with internal policies and regulatory authority requirements.

Legible, complete medical records reflect:

- Dated and timed orders.

- Content required by hospital policy.

- Compliance with policy for security and retention.

SURVEY PROCEDURE

Source of evidence for compliance: Document Review

Verify, at minimum:

- A medical record policy is in place.

- Medical records are stored appropriately and securely.

- Medical records reflect required content.

Stroke Ready Center Performance Measures

SM-4	THROMBOLYTIC THERAPY WITHIN **4.5** HOURS
OTHER IDENTIFIER	GWTG: **AHASTR5, AHASTR79**
BENCHMARK	85%
BACKGROUND	For patients diagnosed with acute ischemic stroke. This measure identifies the percentage who arrive at this hospital within 3.5 hours (210 minutes) of time last known well and for whom IV thrombolytic therapy was initiated within 4.5 hours (270 minutes) of time last known well or admitted inpatients whose symptoms were discovered within 3.5 hours (210 minutes) and for whom IV thrombolytic therapy was initiated at this hospital within 4.5 hours of time last known well.
NUMERATOR INCLUSION	Acute ischemic stroke patients for whom IV thrombolytic was initiated at this hospital within **4.5** hours (**270** minutes) of time last known well.
DENOMINATOR INCLUSION	ED arrivals of patients with acute ischemic stroke whose time of arrival is within 3.5 hours (210 minutes) of time last known well and inpatient stroke alerts with symptoms **discovered within 3.5 hours** (210 minutes) of time last known well.
EXCLUSIONS	■ Time last known well is greater than 3.5 hours from arrival in the emergency department or inpatient stroke alert. ■ Patients with a documented reason for extending or not initiating IV thrombolytic. ■ Patients transferred to another facility or who left AMA. ■ Patients admitted for elective carotid intervention. ■ Patients enrolled in clinical trials. ■ Patients under the age of 18.

DATA SOURCE	■ ED documentation:
	  » Log of chief complaints
	  » Time of symptom onset
	  » Time of patient presentation
	  » Time of stroke team arrival, discharge diagnoses
	
	■ Progress notes
	
	■ Onset of symptoms for inpatients
	
	■ Neuroimaging results
	
	■ Documented contraindications to administration
	
	■ Documented time of initiation of thrombolytic

SM-11	DYSPHAGIA SCREENING
OTHER IDENTIFIER	GWTG: **AHASTR8, AHASTR75**
BENCHMARK	85%
BACKGROUND	For patients diagnosed with **acute ischemic stroke, ICH, and nontraumatic SAH**. This measure identifies the percentage who received dysphagia screening using an evidence-based bedside testing protocol approved by the hospital prior to receiving anything by mouth. Note: The dysphagia screen may be performed by RN.
NUMERATOR INCLUSION	Patients who received dysphagia screening before receiving anything by mouth.
DENOMINATOR INCLUSION	All patients with **acute ischemic stroke, ICH, and nontraumatic SAH**.
EXCLUSIONS	▪ TIA patients excluded if clinically indicated. ▪ Patients who did not receive anything by mouth throughout the hospital stay. ▪ **Patients admitted for elective carotid intervention.** ▪ Patients who left AMA. ▪ **Patients enrolled in clinical trials.** ▪ Patients under the age of 18. ▪ **Patients not admitted as inpatient.**
DATA SOURCE	▪ **Admission data** ▪ ED documentation: 　» Log of chief complaints 　» Time of symptom onset 　» Time of patient presentation 　» Time of stroke team arrival ▪ Onset of symptoms in inpatients ▪ Neuroimaging results ▪ Documented dysphagia screening completed prior to taking anything by mouth ▪ **Discharge diagnosis** ▪ **Medication administration record** ▪ **Hospitalization data** ▪ **Speech pathologist consultation or progress note** ▪ **Intake/output records**

SM-12A	DOOR-TO-NEEDLE TIME, 60 MINUTES
OTHER IDENTIFIER	GWTG: **AHASTR13**
BENCHMARK	85%
BACKGROUND	For acute ischemic stroke patients. This measure identifies the percentage who received IV thrombolytics during the hospital stay with a time from hospital arrival to initiation of therapy (door-to-needle) of 60 minutes or less. *Disposition status: ED*
NUMERATOR INCLUSION	Acute ischemic stroke patients for whom intravenous thrombolytic therapy was initiated within 60 minutes of hospital arrival.
DENOMINATOR INCLUSION	All acute ischemic stroke patients who received intravenous thrombolytic therapy.
EXCLUSIONS	- Patients whose stroke occurred after hospital arrival. - Patients transferred from an inpatient or outpatient department of another facility. - Patients who did not receive thrombolytic therapy within 60 minutes and had a reason for delay documented by a physician/advanced practice nurse/physician assistant such as social, religious, or initial refusal, hypertension requiring aggressive control with intravenous medications, inability to confirm patient eligibility, or further diagnostic evaluation to confirm stroke for patients with hypoglycemia (blood glucose <50); seizures, or major metabolic disorders, or management of concomitant emergent/acute conditions such as cardiopulmonary arrest, respiratory failure requiring intubation), or investigational or experimental protocol for thrombolysis. - Patients enrolled in clinical trials. - Patients less than 18 years of age.
DATA SOURCE	- Discharges with principal diagnosis code for acute ischemic stroke - Emergency department record - Progress notes - Medication administration records - IV flow sheets - Neuroimaging results - Documented contraindications to administration - Documented time of initiation of thrombolytic

| SM-12B	DOOR-TO-NEEDLE TIME, 45 MINUTES
OTHER IDENTIFIER	GWTG: **AHASTR49**
BENCHMARK	75%
BACKGROUND	For acute ischemic stroke patients. This measure identifies the percentage who received IV thrombolytics during the hospital stay with a time from hospital arrival to initiation of therapy (door-to-needle) of 45 minutes or less. *Disposition status: ED*
NUMERATOR INCLUSION	Acute ischemic stroke patients for whom intravenous thrombolytic therapy was initiated within 45 minutes of hospital arrival.
DENOMINATOR INCLUSION	All acute ischemic stroke patients who received intravenous thrombolytic therapy.
EXCLUSIONS	- Patients whose stroke occurred after hospital arrival. - Patients transferred from an inpatient or outpatient department of another facility. - Patients who did not receive thrombolytic therapy within 45 minutes and had a reason for delay documented by a physician/advanced practice nurse/ physician assistant such as social, religious, or initial refusal, hypertension requiring aggressive control with intravenous medications, inability to confirm patient eligibility, or further diagnostic evaluation to confirm stroke for patients with hypoglycemia (blood glucose <50); seizures, or major metabolic disorders, or management of concomitant emergent/acute conditions such as cardiopulmonary arrest, respiratory failure requiring intubation), or investigational or experimental protocol for thrombolysis. - Patients enrolled in clinical trials. - Patients less than 18 years of age.
DATA SOURCE	- Discharges with principal diagnosis code for acute ischemic stroke - Emergency department record - Progress Notes - Medication Administration Records - IV flow sheets - Neuroimaging results - Documented contraindications to administration - Documented time of initiation of thrombolytic

SM-12C	DOOR-TO-NEEDLE TIME, 30 MINUTES
OTHER IDENTIFIER	GWTG: **AHASTR48**
BENCHMARK	50%
BACKGROUND	For acute ischemic stroke patients. This measure identifies the percentage who received IV thrombolytics during the hospital stay with a time from hospital arrival to initiation of therapy (door-to-needle) of 30 minutes or less. *Disposition status: ED*
NUMERATOR INCLUSION	Acute ischemic stroke patients for whom intravenous thrombolytic therapy was initiated in 30 minutes of hospital arrival.
DENOMINATOR INCLUSION	All acute ischemic stroke patients who received intravenous thrombolytic therapy.
EXCLUSIONS	- Patients whose stroke occurred after hospital arrival. - Patients transferred from an inpatient or outpatient department of another facility. - Patients who did not receive thrombolytic therapy within 30 minutes and had a reason for delay documented by a physician/advanced practice nurse/physician assistant such as social, religious, or initial refusal, hypertension requiring aggressive control with intravenous medications, inability to confirm patient eligibility, or further diagnostic evaluation to confirm stroke for patients with hypoglycemia (blood glucose <50); seizures, or major metabolic disorders, or management of concomitant emergent/acute conditions such as cardiopulmonary arrest, respiratory failure requiring intubation), or investigational or experimental protocol for thrombolysis. - Patients enrolled in clinical trials. - Patients less than 18 years of age.
DATA SOURCE	- Discharges with principal diagnosis code for acute ischemic stroke - Emergency department record - Progress notes - Medication administration records - IV flow sheets - Neuroimaging results - Documented contraindications to administration - Documented time of initiation of thrombolytic

SM-13	STROKE TEAM ARRIVAL
BENCHMARK	85%
BACKGROUND	**For patients diagnosed with acute ischemic stroke, ICH, nontraumatic SAH, and TIA.** This measure identifies the percentage for whom the time between presentation of stroke symptoms (in the ED) or onset of symptoms (for inpatients) and the arrival of the stroke team to the bedside **within the time frame defined by the hospital to adequately meet stroke performance metrics.** *Disposition status: ED, OBS, Inpatient*
NUMERATOR INCLUSION	**Ischemic stroke, ICH, nontraumatic SAH, and TIA** patients for whom the stroke team responded to the bedside within **the time frame defined by the hospital** of arrival in the ED or of inpatient onset of symptoms.
DENOMINATOR INCLUSION	**Patients with a primary discharge diagnosis of ischemic stroke, ICH or nontraumatic SAH, or TIA** who either present to the ED with acute stroke symptoms or are inpatients who develop clinical stroke symptoms during hospitalization.
EXCLUSIONS	■ Cancellation of stroke code. ■ Patients who do not meet criteria as per hospital protocols. ■ Patients who left AMA. ■ Patients under the age of 18.

DATA SOURCE	■ **Admission data**
	■ **Stroke alert data**
	■ ED documentation:
	  » Log of chief complaints
	  » Onset of symptoms
	  » Time of patient presentation
	  » Time of stroke team arrival, discharge diagnoses
	■ Documented onset of symptoms in inpatients
	■ Neuroimaging results

SM-14	LABORATORY RESULT
BENCHMARK	85%
BACKGROUND	**For patients with a primary discharge diagnosis of ischemic stroke, hemorrhagic stroke or TIA.** This measure identifies the percentage for whom stroke lab testing turnaround times (TAT)* were within 45 minutes of ED arrival or onset of inpatient symptoms. *Disposition status: ED, OBS, Inpatient* *The lab TAT metrics are for: point of care glucose testing; INR, PT, PTT (if indicated), and other labs as per stroke protocol/physician order.
NUMERATOR INCLUSION	**Ischemic stroke, hemorrhagic stroke, and TIA patients** whose stroke laboratory testing was completed within 45 minutes of arrival in the ED or onset of symptoms for inpatients.
DENOMINATOR INCLUSION	**Patients with primary discharge diagnosis of ischemic stroke, hemorrhagic stroke or TIA** who present to the ED with acute stroke symptoms or develop clinical stroke symptoms as inpatients.
EXCLUSIONS	▪ Laboratory results indicating cell lysis/other erroneous results. ▪ Patients who do not meet criteria of stroke symptoms as per hospital protocols. ▪ Patients who left AMA, discontinued care, or who expired. ▪ Patients under the age of 18.

DATA SOURCE	▪ **Ambulance/EMS record**
	▪ ED documentation:
	  » Log of chief complaints
	  » Onset of symptoms
	  » Time of patient presentation
	  » Time of stroke team arrival
	▪ Documented onset of symptoms for inpatients
	▪ **Neuroimaging results**
	▪ Laboratory orders and results
	▪ **Nursing flow sheet**
	▪ **Nursing assessment**
	▪ **Discharge diagnosis**
	▪ **Transfer sheet**

SM-15	NEUROIMAGING STUDIES
BENCHMARK	85%
BACKGROUND	**For patients with a discharge diagnosis of ischemic hemorrhagic, hemorrhagic stroke or TIA.** This measure identifies the percentage for whom neuroimaging (CT scan or MRI) turnaround time (TAT) is within 45 minutes of arrival exhibiting or presenting with acute stroke symptoms (as defined by hospital protocols). *Disposition status: ED, OBS, Inpatient*
NUMERATOR INCLUSION	**Ischemic stroke, hemorrhagic stroke or TIA patients** with neuroimaging (CT scan or MRI) completed within 45 minutes of arrival in ED or inpatient onset of symptoms.
DENOMINATOR INCLUSION	**Patients with primary discharge diagnosis of ischemic stroke, hemorrhagic stroke or TIA** who either present to the ED with acute stroke symptoms **or develop** clinical stroke symptoms as inpatients.
EXCLUSIONS	▪ Patients who do not meet criteria of stroke symptoms as per hospital protocols. ▪ Patients who left AMA, discontinued care, or who expired. ▪ Patients under the age of 18.
DATA SOURCE	▪ Consultation orders/notes; time of transfer (if applicable) ▪ ED documentation: 　» Log of chief complaints 　» Onset of symptoms 　» Time of patient presentation 　» Time of stroke team arrival, discharge diagnoses ▪ Onset of symptoms for inpatients and neuroimaging results ▪ Documented contraindications to administration

SMA-1	NIHSS FOR ISCHEMIC STROKE
OTHER IDENTIFIER	GWTG: **AHASTR10, AHASTR82**
BENCHMARK	85%
BACKGROUND	For acute ischemic stroke patients. This measure identifies the percentage for whom an initial National Institutes of Health Stroke Scale (NIHSS) score is documented in the medical record before any acute recanalization therapy (i.e., IV thrombolytic or IA thrombolytic (tPA) therapy, or mechanical endovascular reperfusion therapy) for patients who undergo recanalization therapy or, documented within 12 hours of ED arrival for patients who do not undergo recanalization therapy. *Disposition status: ED, OBS, Inpatient*
NUMERATOR INCLUSION	Ischemic stroke patients with their NIHSS score documented in the medical record prior to any acute recanalization therapy (in patients undergoing recanalization therapy) or within 12 hours of hospital arrival for patients who do not undergo recanalization therapy.
DENOMINATOR INCLUSION	Ischemic stroke patients.
EXCLUSIONS	• **Patients admitted for elective carotid intervention.** • Patients who do not have recanalization therapy and are discharged within 12 hours of arrival at the hospital. • **Patients documented for Comfort Measures Only.** • Patients less than 18 years of age.
DATA SOURCE	• **Consultation notes** • **Emergency department record** • **History and physical** • **Admission note** • **Nursing assessment** • **Nursing flow sheet** • **Progress notes**
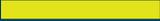
RESOURCES

Glossary

Because accepted terminology may vary, this glossary of terms and abbreviations has been compiled to furnish users of the this publication with a resource to facilitate clear communication of the intent of the requirements.

Acute Hemorrhagic Stroke	A non-traumatic intracerebral hemorrhage, subarachnoid hemorrhage, or hemorrhagic infarction.
Acute Ischemic Stroke	A measurable neurological deficit of sudden onset, presumed secondary to focal cerebral ischemia, and not otherwise attributable to intracerebral hemorrhage (ICH) or another disease process. Cerebrovascular disorder caused by deprivation of blood flow to an area of the brain, generally as a result of thrombosis, embolism, or reduced blood pressure.
Acute Myocardial Infarction (AMI)	Death of heart muscle resulting from insufficient blood supply to the heart.
Allied Health Assistant	Non-physicians qualified by special training and frequently by licensure who work in the health care field usually in supporting roles.
Angioplasty	Reconstruction of blood vessels damaged by disease or injury.
Antithrombotic Therapy	Pharmacologic agents (oral or parenteral) preventing or interfering with the formation of thrombi or blood coagulation.
Atherosclerosis	Common disorder characterized by yellowish plaques of cholesterol, other lipids, and cellular debris in the inner layers of the walls of arteries.
Atrial Fibrillation	Cardiac arrhythmia characterized by disorganized electrical activity in the atria accompanied by an irregular ventricular response that is usually rapid. The atria quiver instead of pumping in an organized fashion, resulting in compromised ventricular filling and reduced stroke volume. Stasis of left atrial flow increases the risk of stroke.
Atrial Flutter	Type of atrial tachycardia characterized by contraction rates between 230/min and 380/min.
Benchmark	A goal based on practice measures.
Brain Attack Coalition (BAC)	The Brain Attack Coalition is a multidisciplinary organization that includes most major medical organizations involved with stroke care assembled to establish guidance about the formation and operation of stroke centers.
Caregiver/Patient Representative	A patient's family member or any other person who will be responsible for care of the patient after discharge.

Clinical Process Measure	Data designed to evaluate the processes or outcomes of care associated with the delivery of clinical services; to allow for intra- and inter-organizational comparisons to be used to continuously improve patient health outcomes. Measures may focus on the appropriateness of clinical decision making and implementation of these decisions. They must be condition specific, procedure specific, or address important functions of patient care (e.g., medication use, infection control, patient assessment, etc.).
Competency	The ability to adequately perform an assigned task or function.
Comprehensive Stroke Center	According to the Brain Attack Coalition, a Comprehensive Stroke Center "would provide complete care to patients experiencing the most complex strokes that require specialized testing and other interventions. Such comprehensive stroke centers typically would include tertiary care medical centers and hospitals with the infrastructure and personnel necessary to perform highly technical procedures and provide all needed levels of care." Source: Alberts, Mark J., et al., "Recommendations for the Establishment of Primary Stroke Centers," JAMA, June 21, 2000, Vol. 283, No. 23, 3102-3109. In 2005, the Brain Attack Coalition further defined the Comprehensive Stroke Center as "A facility or system 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. The types of patients who might use and benefit from a CSC include (but are not limited to) patients with large ischemic strokes or hemorrhagic strokes, those with strokes from unusual etiologies or requiring specialized testing or therapies, or those requiring multispecialty management. 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." Source: Alberts, MJ, et al, "Recommendations for Comprehensive Stroke Centers – A Consensus Statement from the Brain Attack Coalition," Stroke, July 2005, 1597-1618.
Consultant	A second physician called by an attending physician to examine a patient and discuss a case.
Continuous Quality Improvement (CQI)	Ongoing interdisciplinary commitment to strive for improvement in systems in order in order to provide quality healthcare that meets or exceeds patient/customer expectations.
Data: Collection	The act or process of capturing primary data from a single or number of sources. Also called data gathering.
Data: Denominator	The lower part of a fraction used to calculate a rate, proportion, or ratio. Also the population for a rate-based measure.
Data: Entry	The process by which data are transcribed or transferred into an electronic format.

Data: Quality	The accuracy and completeness of measure data on performance in the context of the analytic purposes for which they will be used.
Data: Numerator	The upper portion of a fraction used to calculate a rate, proportion, or ratio.
Department	An organizational entity of the hospital or its medical staff.
Diagnosis	A physician's technical description of the disease afflicting a patient.
Document of Co-operation	A formalized agreement between a hospital and the Emergency Medical System (EMS) that addresses a written plan for transporting and receiving stroke patients. Note: this may already be mandated by state law.
Primary Diagnosis	The physician's description of the disease or illness chiefly responsible for the patient seeking medical care (Principal) or for being hospitalized.
Discharge Diagnosis	The physician's final, recorded diagnosis.
Elective Carotid Endarterectomy	Surgical procedure peformed by choice, involving excision of atheromatous segments of the endothelium and tunica media of the carotid artery, leaving a smooth tissue lining and facilitating blood flow through the vessel; surgery done to prevent stroke.
Elective Carotid Intervention	Surgery (e.g., carotid endarterectomy) and other procedures (e.g., carotid angioplasty, stenting) involving the carotid artery, performed due to the patient's choice.
Electrocardiogram (ECG)	A graphic tracing of the heart's electrical impulses.
Emergency Department (ED)	A portion of the hospital where emergency diagnosis and treatment of illness or injury is provided.
Emergency Medical System (EMS)	Network of services coordinated to provide aid and medical assistance from primary response to definitive care, involving personnel trained in the rescue, stabilization, transportation, and advanced treatment of traumatic or medical emergencies.
Governing Body	The individual agency, group or corporation, appointed, elected, or otherwise designated, in which is vested the ultimate responsibility and authority for the conduct of the institution.
Health Care Facility	An organization that directly provides or supplies health care service.
Heart Failure (HF)	A clinical syndrome characterized by signs and symptoms resulting from disturbances in cardiac output or from increased venous pressure, including fatigue, shortness of breath, or leg swelling.
Hospital Arrival, Time of	For patients presenting to the Emergency Department, the "hospital arrival" time is the time the patient arrives in the Emergency Department, not the time of hospital admission. This term is used for the purpose of determining patient eligibility for thrombolytic therapy. For consistency with data collection, the time the patient arrives at the hospital is used with multiple QAPI process indicators.
Hospital Inpatient	A hospital patient who is provided with room, board, and continuous general nursing service.
Hospital Patient	An individual receiving hospital based or coordinated medical services for which the hospital is responsible.

Intensive Care Unit (ICU)	A department of a hospital with a designated nursing and medical team, who have training and expertise in neurocritical care.
Intracerebral Hemorrhage (ICH)	Non-traumatic abrupt onset of headache or altered level of consciousness and/or focal neurological deficit that is associated with a focal collection of blood within the brain parenchyma on CT scan and is not due to trauma or hemorrhagic conversion of a cerebral infarction.
IV Thrombolytic Therapy	Intravenous administration of a thrombolytic agent, such as tissue plasminogen activator (TPA), to dissolve an arterial clot.
Low-Density Lipoprotein (LDL)	Plasma protein provided by the liver, carrying relatively more cholesterol and triglycerides than protein. The high cholesterol content may account for its greater atherogenic potential. Also known as "bad cholesterol."
Medical Director	A physician who is formally delegated with the responsibility and authority to maintain proper standards of medical care and to plan for continuance and improvement of medical care within a defined program, department, or facility.
Medical Services	Services performed at the direction of a physician on behalf of patients by physicians, dentists, nurses, and other professional personnel.
Medical Staff	A formal organization of physicians delegated with the authority and responsibility to maintain proper standards of medical care and to plan for continuance and improvement of medical care.
National Hospital Inpatient & Quality Measure	A standardized performance measure that meets the Centers for Medicare Medicaid Services evaluation criteria, has precisely defined specifications, can be uniformly embedded in extant systems, has standardized data collection protocols to permit uniform implementation by health care organizations and permit comparisons of health care organization performance over time through the establishment of a national comparative data base.
Nursing Care	The process of assessing, planning, evaluating, and reevaluating the care of a patient/client's physical, social, mental, and emotional condition to achieve the optimum state of their health in accordance with the physician's orders.
Nursing Services	Service providing curative, rehabilitative, and preventative aspects of nursing care to patients.
Occupational Therapist	An individual who (a) Is a graduate of an occupational therapy curriculum accredited jointly by the Committee on Allied Health Education and Accreditation of the American Medical Association and the American Occupational Therapy Association; or (b) Is eligible for the National Registration Examination of the American Occupational Therapy Association; or (c) Has 2 years of appropriate experience as an occupational therapist, and has achieved a satisfactory grade on a proficiency examination conducted, approved, or sponsored by the U.S. Public Health Service, except that such determinations of proficiency do not apply with respect to persons initially licensed by the state or seeking initial qualification as an occupational therapist after December 31, 1977.

PACU	Post Anesthesia Care Unit
Patient	A person who receives health care service from a health care provider.
Peer Review	Concurrent or retrospective review by practicing physicians or other health professionals of the quality and efficiency of patient care practices or services ordered or performed by other physicians or other health professionals.
Physician	A graduate of an accredited and appropriately recognized osteopathic or allopathic college of medicine (DO/MD) and who is licensed in the state to practice.
Physical Therapist	An individual licensed by the state in which s/he practiced and who has graduated from a physical therapy curriculum approved by:
	1) The American Physical Therapy Association
	2) The committee on Allied Health Education and Accreditation of the American Association
	3) The Council on Medical Education of the American Medical Association and the American Physical Therapy Association.
Primary Stroke Center	According to the Brain Attack Coalition, the Primary Stroke Center "stabilizes and provides emergency care for patients with acute stroke. Such centers would then either transfer the patient to a comprehensive stroke center or could admit the patient and provide further care depending on the patient's needs and the center's capabilities...[The Primary Stroke Center's] emergency department should be able to offer approved therapies to appropriately selected patients whether the stroke is ischemic or hemorrhagic."
	Source: Alberts, Mark J., et al., "Recommendations for the Establishment of Primary Stroke Centers," JAMA, June 21, 2000, Vol. 283, No. 23, 3102-3109.
Process	An series of events, activities, actions, mechanisms, or steps that transform inputs into outputs.
Professional Staff	A formal organization of professional health personnel that includes one or more physicians which is delegated with the authority and responsibility to maintain proper standards of medical care and/or health related care and to plan for continuance and improvement of that medical care.
Protocol	A document that describes the correct conduct and procedures to be followed in formal situations. Protocols may include: policies; order sets; care plan/pathway; or procedures as determined by the healthcare organization.
Quality Assessment Performance Improvement (QAPI)	A multi-disciplinary approach to measuring, assessing and improving outcomes.
Radiologist	A physician who is qualified by education and experience in radiology.
Reperfusion	Reestablishing blood flow in an obstructed coronary artery. It may be accomplished with thrombolytic therapy or percutaneous coronary intervention.

Speech Language Pathologist	A person who:
	(a) Meets the education and experience requirements for a Certificate or Clinical Competence (in speech pathology or audiology) granted by the American Speech-Language-Hearing Association; or
	(b) Meets the educational requirements for certification and is in the process of accumulating the supervised experienced required for certification.
Statin	A class of pharmaceutical agents that modify LDL-cholesterol by blocking the action of an enzyme in the liver which is needed to synthesize cholesterol, thereby decreasing the level of cholesterol circulating in the blood; HMG-CoA reductase inhibitors.
Stent	Rod or threadlike device for supporting tubular structures during surgical anastomosis or for holding arteries open during percutaneous angioplasty.
Stroke	See definitions for Acute Ischemic Stroke and Acute Hemorrhagic Stroke.
Stroke Ready Center	Stroke Ready Centers provide timely access to stroke care but may not be able to meet all the criteria specified in Primary and Comprehensive levels. However, the Stroke Ready Center designation serves as a notice to the community EMS that the hospital is prepared to meet the initial needs of stroke patients.
Stroke Unit	A specific unit or section of the unit in which stroke patients are admitted and acute stroke clinicians are rostered.
Subarachnoid Hemorrhage (SAH)	Non-traumatic abrupt onset of headache or altered level of consciousness that is associated with blood in the subarachnoid space on CT or a clinical history and exam consistent with SAH (sudden onset of severe headache or altered level of consciousness) with xanthochromia and many red blood cells in the cerebrospinal fluid.
Symptom Onset, Time of	This term is the time the patient was last known to be without symptoms. The term is used for the purpose of determining patient eligibility for tissue plasminogen activator (tPA) therapy. The term is also used with required QAPI data collection. If patient awoke with symptoms, symptom onset time is defined as when the patient went to sleep or was last known to be awake without symptoms.
Telemedicine	Ability to provide remote diagnosis.
Time Last Known Well	Time at which the patient was last known to be without the signs and symptoms of the current stroke or at his or her prior baseline. Variation may exist if the signs and symptoms are not witnessed.
Tissue Plasminogen Activator (tPA)	Clot-dissolving substance produced naturally by cells in the walls of blood vessels, and also manufactured synthetically. TPA activates plasminogen to dissolve clots and is used therapeutically to open occluded arteries.
Validation	The process by which the integrity and accuracy of data are established. Validation processes can occur immediately after a data item is collected or after a complete set of data are collected.
Venous Thromboembolism (VTE)	A term that includes deep vein thrombosis and/or pulmonary embolism.

Notes