



# Stroke Certification Manual

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Primary Stroke Certification v2.3

A Program of the American Osteopathic Association  
142 East Ontario Street Chicago, IL 60611-2864



AMERICAN OSTEOPATHIC ASSOCIATION

TREATING OUR FAMILY AND YOURS

## Healthcare Facilities Accreditation Program

The mission of the Healthcare Facilities Accreditation Program (HFAP) is to assist health care facilities in monitoring and improving the quality of care they provide to their patients.

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Director  
Healthcare Facilities Accreditation Program (HFAP)  
142 E. Ontario Street  
Chicago, IL 60611

# Primary Stroke Certification Framework



142 East Ontario Street, Chicago, Illinois 60611-2864 • 800-621-1773 x 8258 • 312-202-8258

## GOVERNANCE

## CLINICAL

## SUPPORT

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## INTRODUCTION

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The Healthcare Facilities Accreditation Program (HFAP) of the American Osteopathic Association (AOA) has been providing medical facilities with an objective review of their services since 1945. The program is recognized nationally by the federal government, state governments, and insurance carriers and managed care organizations.

### Deeming Authority

In 1965 the HFAP program was granted “Deeming Authority” to conduct accreditation surveys of acute care hospitals by the Healthcare Financing Administration (HCFA), now the Centers for Medicare and Medicaid Services (CMS). (Section 1865 of the Social Security Act and implementing regulations 42 CFR 488.5.) This means that a facility accredited by the HFAP is deemed to comply with the Medicare Conditions of Participation for Hospitals as published by CMS.

The HFAP program was also granted “Deeming Authority” from HCFA, now CMS, to survey hospital laboratories under the Clinical Laboratory Improvement Amendments of 1988 (CLIA) as published in the Federal Register, Vol. 60, No. 140, page 37657, Friday, July 21, 1995.

### Certification

HFAP has been certifying Primary Stroke Centers since 2006 and since then, as the standards have evolved so has the growing need to diversify the program. Based on market demand three types of Certification now are offered to hospitals seeking stroke certification.

#### 1. Stroke Ready Center Certification

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, Stroke Ready center serves as a notice to the community emergency medical service that the hospital is prepared to meet the initial needs of stroke patients.

#### 2. Primary Stroke Center Certification

Primary Stroke centers have the capacity to stabilize and treat acute stroke patients. They provide initial, acute care and administer tPA and other acute therapies safely and efficiently.

#### 3. Comprehensive Stroke Center Certification

Comprehensive Stroke centers provide care for complex stroke patients. Their infrastructure includes advanced treatments in key areas, such as neurology, neurosurgery and neuroradiology.

Questions about the HFAP products should be directed to the:

Healthcare Facilities Accreditation Program (HFAP)  
142 East Ontario Street  
Chicago, Illinois 60611-2864

[info@hfap.org](mailto:info@hfap.org)



# Stroke Certification

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Certification Process v2.2

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## **CERTIFICATION PROCESS**

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### **ELIGIBILITY FOR STROKE CENTER CERTIFICATION**

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An accredited or state certified hospital seeking Stroke Center certification through the Healthcare Facilities Accreditation Program (HFAP) shall comply with the following requirements before its application will be considered.

1. Eligibility into the stroke certification program is via compliance with:
  - HFAP accreditation requirements
  - CMS certification requirements
  - Applicable State Licensure requirements
2. Healthcare facilities seeking HFAP Stroke Center certification must comply with all applicable HFAP Stroke Center certification standards.
3. Healthcare facilities are to define their acute stroke population within their acute stroke protocols.
4. The hospital shall have a minimum of 12 consecutive months of stroke data. If the hospital is requesting initial Stroke Center certification, the hospital must have one (1) month of stroke data (refer to applicable performance measures indicated in chapter 3) prior to submitting an application for Stroke Center certification (and 4 months of data at time of review. If a facility is ready to survey within one month of application, then 3 months of data is to be submitted with application).

### **LEVELS OF STROKE CERTIFICATION**

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1. Comprehensive Stroke Certification
2. Primary Stroke Certification
3. Stroke Ready Certification

### **GRADING SCALE USED IN THIS MANUAL**

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The grading scale includes two levels of response in the scoring methodology:

- |                   |   |
|-------------------|---|
| 1 = Compliant     | Indicates there is evidence of complete compliance with the requirement.                    |
| 2 = Not Compliant | Indicates there is no evidence or insufficient evidence of compliance with the requirement. |

## **CERTIFICATION PROCESS**

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### **I. Application Procedures**

A. All communications regarding certification shall be directed to the:

**Healthcare Facilities Accreditation Program (HFAP)**  
**Attn: Director of Accreditation and Certification Services**  
142 East Ontario Street, 10<sup>th</sup> floor  
Chicago, Illinois 60611  
800-621-1773, x-8258 (phone)  
312-202-8206 (fax)  
[info@hfap.org](mailto:info@hfap.org)

### **B. New applications**

1. Healthcare facilities may apply for HFAP Stroke Center certification by completing an on-line application packet and returning it with the biennial registration fee to the HFAP.
2. Fees: Healthcare facilities are charged:
  - a. Cost according to the level of Stroke Center certification (inclusive of travel costs and mid-cycle review for Comprehensive Stroke Certification).

### **F. Renewal applications**

1. A healthcare facility seeking renewal of their Stroke Center certification must complete and submit a reapplication six months prior to the expiration of their current certification. Applications may be accessed on the HFAP website.
2. The biennial registration fee must be submitted at the time of reapplication. If the biennial registration fee has not been received by the HFAP, the application for renewal will not be processed.

### **G. Certification Procedures**

- 1) Initial reviews for Stroke Center certification will be scheduled in collaboration with the facility. All subsequent re-certification reviews will provide HFAP with a list of dates. The facility will then be informed of the review date, once scheduled.
  - a) Blackout days include:

• New Year's Day	• Independence Day	• Christmas Eve
• Martin Luther King, Jr. Day	• Labor Day	• Christmas Day
• Memorial Day	• Thanksgiving Day	• Day After Christmas Day
	• Day After Thanksgiving	• New Year's Eve Day

## **CERTIFICATION PROCESS**

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- 2) Stroke Certification is dependent on meeting and maintaining prescribed metrics to a nominated vendor - as outlined in the manual. Verification of compliance with the measures, as well as the use of data will be sighted at each certification review.
- 3) Stroke centers which are part of a system, may apply for one certification. However each stroke center that forms part of the system must individually meet all the applicable standards within the application. All prescribed performance measures must be submitted via individual facilities not altogether. When applying as a system, if one facility fails one criterion, all facilities fail that criterion.
- 4) HFAP Stroke Center certification reviews are conducted by a team of specially trained reviewers. The HFAP will maintain a list of reviewers approved by the Bureau of Healthcare Facilities Accreditation (BHFA) or "Bureau".
- 5) Stroke Center certification review teams may include (pending on level of certification):
  - a. A qualified registered nurse reviewer; and or
  - b. A qualified physician or registered nurse team captain reviewer.
- 6) Staff of the HFAP may, within guidelines approved by the Bureau and/or the Chair, change the number of reviewers or review days based on the size and complexity of the healthcare facility. The fee for such reviews will be adjusted accordingly.
- 7) The total cost of the Stroke Center certification review will be the responsibility of the healthcare facility.
- 8) At the conclusion of the onsite Stroke Center certification review, the reviewers will provide a verbal report of any area(s) of noncompliance identified during the exit conference. The reviewers will submit their findings to the Healthcare Facilities Accreditation Program (HFAP) central office. The HFAP will provide the facility with a report of the deficiencies identified during the review within 10 business days. The outcome of the review, pass/fail is based on noncompliance in the following areas:
- 9) The HFAP reserves the right to amend the deficiencies review results upon review of findings, resulting in either elimination or modification of deficiencies reported at the exit conference.
- 10) Within ten (10) business days of the Stroke Center certification end date, HFAP will provide the healthcare facility a written report of any areas of noncompliance.
- 11) For certification, healthcare facilities are required to implement actions to correct identified deficiencies. Facilities must provide a formal, written response within 10 calendar days, demonstrating compliance to each deficiency identified on review. Failure to respond to and correct deficiencies cited may result in denial of certification.
- 12) Each Stroke Center certification review report and related progress report is submitted to the Bureau of Healthcare Facilities Accreditation (BHFA) for review and final award of certification.

### **II. The Bureau of Healthcare Facilities Accreditation (BHFA)**

#### **A. Bureau authority and procedure - Healthcare Facilities Accreditation Program.**

## CERTIFICATION PROCESS

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1. The Bureau has delegated authority by the Board of Trustees of the American Osteopathic Association:
  - a. To conduct accreditation / certification reviews of healthcare facilities.
  - b. To evaluate the certification review reports, and on the basis of the onsite certification review by the review team, to grant, deny, or withdraw certification to those healthcare facilities.
2. Certification actions that may be taken for healthcare facilities are:
  - a. For Stroke Center certification:
    - 1) **Certified** – valid for a three (3) year period. Certification will be awarded to Stroke Centers that have successfully met all applicable HFAP Stroke Center certification standards/requirements. A planned, announced review will be conducted at mid-cycle.
    - 2) **Denial of Certification** – indicates that a Stroke Center has been denied certification because it does not meet the applicable HFAP requirements.
    - 3) **Recognition of Superior Performance** - an HFAP Stroke Center certified facility that demonstrates 95% compliance with all performance indicators for a minimum period of four consecutive quarters will be awarded recognition of this accomplishment. The facility will receive a certificate to display as well as recognition on the HFAP website.
3. A healthcare facility that has been granted Stroke Center certification will be provided the HFAP applicable Stroke Center certificate and seal, for use on the facility's websites.
4. The Bureau may alter the certification status of a healthcare facility for just cause. Just cause includes, but is not limited to, failure to maintain compliance with HFAP certification requirements, falsification of information presented during an onsite review or information submitted during the application process, facilities that no longer meet eligibility requirements, and loss of accreditation.

### B. Denial or Removal of Certification

1. The Bureau may withdraw certification from a healthcare facility at any time when an onsite review has been conducted and reviewed by the Bureau and there is cause for such action.
2. The Bureau may withdraw certification from a healthcare facility if it fails to comply with eligibility criteria for three (3) consecutive months.
3. The written notice of the impending removal of certification will be addressed to the president of the governing body, chief executive officer and the chief of staff of the healthcare facility. Healthcare facilities will have ten (10) calendar days to submit a plan of correction.

## **CERTIFICATION PROCESS**

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4. Denial or removal of certification becomes effective 60 calendar days after action by the Bureau if there is no appeal by the healthcare facility.
5. Notice of the Bureau's action will be forwarded in writing to the healthcare facility within 60 calendar days of the Bureau meeting.
6. The healthcare facility may appeal the Bureau's action of denial to the Appeal Committee of the Bureau of Healthcare Facilities Accreditation (Appeal Committee).
7. The HFAP will notify the healthcare facility in writing of the action taken by the Appeal Committee within 15 business days of the Appeal Committee hearing.
8. The healthcare facility may appeal denial action by the Appeal Committee to the Board of Trustees.
9. The HFAP will notify the healthcare facility in writing of the action taken by the Board of Trustees within 15 business days of the Board hearing. The Board of Trustees' action is final.

### **C. Appeal Procedure**

1. Appeal of Bureau actions must be made in writing to the Appeal Committee and must be filed within 30 calendar days following receipt of the recommendation of the Bureau.
  - a. An appeal request should include a detailed description of errors in fact from the review report and/or the documentation of correction of areas of noncompliance whenever possible.
  - b. The appeal procedure permits the healthcare facility to show that it has corrected, or is attempting to correct, deficiencies that were found at the time of program review.
  - c. Presentation of such correction does not bind the Appeal Committee to either reverse or accept the recommendations of the Bureau.
2. The Appeal Committee takes actions within the same categories of certification status as does the Bureau.
3. The Appeal Committee reports its actions in writing to the Bureau, to the Board of Trustees, and to the appellant.
4. Healthcare facilities requesting appeals are automatically continued on their current certification status until the appeal hearing has been conducted and the Appeal Committee has taken action.
5. Healthcare facilities may seek a final appeal and hearing before the Board of Trustees.



# Primary Stroke Certification

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Clinical Standards v2.3

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STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<b>GOVERNANCE</b>			
<b>Strategic Direction</b>			
<p><b>GOVERNANCE PLAN</b></p> <p><u>01.00.01</u></p> <p>The leadership of the facility demonstrates its commitment to the stroke program.</p>	<p>According to the American Heart Association it is estimated that in America 795,000 new and recurrent strokes are diagnosed each year. Stroke is the fourth leading cause of death and is a leading cause of long-term disability in the U.S.</p> <p>Recognizing the high incidence of stroke and the high costs of treatment, it is suggested that more efficient and effective care will benefit patients, healthcare systems, and third party payers. By reducing complications and improving patient status, it is anticipated that the cost savings could be substantial.</p> <p>To assist facilities with achieving these desirable outcomes, the Healthcare Facilities Accreditation Program (HFAP) of the American Osteopathic Association has adopted the recommendations, developed by the Brain Attack Coalition (BAC) and the American Heart Association / American Stroke Association (AHA/ASA) guidelines, to create the Stroke Certification standards.</p> <p>a) Stroke Certification is an optional program supported by hospital administration.</p> <p>b) This formal commitment is demonstrated at least every three (3) years.</p> <p>c) An annual budget is approved for stroke certification / respective cost center, (which includes provision of neurosurgery equipment and</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Verify that the Board of Trustees has provided formal support to the PSC program.</p> <p>Verify the following are in place:</p> <ul style="list-style-type: none"> <li>- Formal written adoption of the HFAP stroke certification standards as adopted from the recommendations of the Brain Attack Coalition (BAC). This may include a document such as a service line report signed by the Board or Board minutes indicating approval of the level of stroke certification.</li> <li>- An annual budget is approved for stroke certification / respective cost center. The budget clearly identifies the level of support for the program <ul style="list-style-type: none"> <li>a) Equipment</li> <li>b) Staffing</li> <li>c) Training</li> </ul> </li> <li>- The program has identified its core stroke leaders.</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
	<p>supplies if applicable to service provision).</p> <p>d) The program identifies its core stroke leaders (minimum of two people) who participate in development and review of program design (protocols, policies &amp; education).</p>		
<p><b>LICENSURE</b></p> <p><u>01.00.02</u></p> <p>The Stroke program has the required license and applicable accreditation / certifications.</p>	<p>In addition to any posted evidence of such Licensure / there is an agency letterhead communication to verify the status.</p> <ol style="list-style-type: none"> <li>1. Current state license</li> <li>2. Hospital accreditation</li> <li>3. Laboratory accreditation</li> <li>4. Radiology accreditation</li> </ol>	<p><b>DOCUMENT REVIEW</b></p> <p>Prior to the survey, determine whether any aspect of the program is subject to licensure requirements and verify that the licensing agency has approved the hospital as meeting the standards for licensure as set forth by the agency of the State or locality responsible for licensing hospitals. Review a copy of the state license to meet the standard.</p>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>
<p><b>GRIEVANCE PROCESS</b></p> <p><u>01.00.03</u></p> <p>The Stroke program has a complaint and grievance process (may be part of the hospital-wide process).</p>	<ul style="list-style-type: none"> <li>– Complaint and grievance policies and procedures are accessible</li> <li>– Patients have access to information on the grievance process</li> <li>– Grievances are incorporated into the Stroke programs QAPI</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Policy on complaint and grievance process.</p> <p>Is patient information (in relation to the grievance policy) accessible?</p> <p>Can the department demonstrate an improvement as a result of a complaint?</p>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>
<b>Credentialing</b>			
<p><b>MEDICAL DIRECTOR</b></p> <p><u>01.01.01</u></p> <p>The Stroke Center has an individual appointed as the Medical Director. The credentialed Medical Director of the Stroke center has training and expertise in acute stroke / cerebrovascular disease.</p>	<p>The physician providing leadership and clinical governance is knowledgeable of the specialty practices and techniques to lead and advise the team.</p> <p>The Medical Director is a credentialed member of the Medical Staff. It is not mandated that the Medical Director be a neurologist; however, the Medical Director must have sufficient knowledge in the treatment of cerebrovascular</p>	<p><b>INTERVIEW</b></p> <p>Interview leaders and staff regarding the role and oversight activities conducted by the director. Verify:</p> <ul style="list-style-type: none"> <li>– A medical director has been appointed and he/she has fixed lines of authority and delegated responsibility for operation of the service</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
	<p>disease to provide credibility and leadership to the Stroke Center Program.</p> <p>The Medical Director has knowledge of acute stroke / cerebrovascular disease as demonstrated through two (2) or more of the following:</p> <ul style="list-style-type: none"> <li>- Completion of a stroke fellowship</li> <li>- Certification in neurology or neurosciences plus five (5) years' experience in cerebrovascular diseases</li> <li>- Attendance or faculty member of one or more regional, national, or international stroke conferences or courses each year</li> <li>- Five (5) or more peer-reviewed stroke related publications</li> <li>- Other criteria as determined by the institution</li> </ul> <p>The Medical Director has completed eight (8) or more continuing medical education (CME) credits each year in acute stroke / cerebrovascular disease (may include conference attendance / other recognized CME activities).</p>	<ul style="list-style-type: none"> <li>- The time spent by the Medical Director directing the department is appropriate to the scope and complexity of services provided</li> </ul> <p><b>DOCUMENT REVIEW</b></p> <p>Review the position description and the curriculum vita of the Medical Director.</p> <p>Verify:</p> <p><b>FILE REVIEW</b></p> <p>Review credentialed files for medical director to determine:</p> <ul style="list-style-type: none"> <li>- Licensure is current</li> <li>- Doctor is credentialed</li> <li>- The Medical Director has eight (8) or more CME credits.</li> </ul>	
<p><b>MEDICAL STAFFING</b></p> <p><u>01.01.02</u></p> <p>The organization and credentialed medical staffing of the stroke program are appropriate to the scope of services offered.</p> <p><b>MEDICAL DIRECTOR</b></p> <p>The medical director (or designee) is</p>	<p>The provision of high quality and efficient care is directly dependent upon the degree of commitment of the facility to build the necessary infrastructure.</p> <p>A supportive infrastructure is demonstrated through:</p> <ul style="list-style-type: none"> <li>- The organizational chart of the facility in which the reporting mechanisms for the stroke program are indicated.</li> <li>- The scope of services provided by the stroke program is described in</li> </ul>	<p><b>FILE REVIEW</b></p> <p>Verify the governing body has established and monitors the enforcement of policies that ensure a qualified doctor of medicine or osteopathy is on duty or on call at all times to provide medical care and onsite supervision when necessary.</p> <p>Review the call register and documents that assure that specialty doctors of medicine or osteopathy are on duty or</p>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p>available 24 hours, every day of the year.</p> <p><b>EMERGENCY DEPARTMENT &amp; STROKE UNIT</b></p> <p>There are an adequate number of qualified physicians available to provide rapid diagnosis and treatment of acute stroke patients.</p> <p><b>*NEUROSURGICAL SERVICES</b></p> <p>If neurosurgery is provided on site: Neurosurgical services are available within two (2) hours of when it is deemed to be clinically necessary.</p> <p>If neurosurgical services are not provided on site: Systems are in place for acute stroke patients requiring neurosurgical services and transfer made available within two hours when deemed clinically necessary.</p> <p>*Refer to 02.00.08 Neurosurgical Services.</p>	<p>the Provision of Care document of the facility.</p> <p><b>MEDICAL DIRECTOR</b></p> <ul style="list-style-type: none"> <li>- In the absence of the Medical Director, the designee is: <ul style="list-style-type: none"> <li>a) Available 24 hours, every day of the year</li> <li>b) Accessible by phone within 20 minutes</li> <li>c) Onsite within 45 minutes of request</li> </ul> </li> <li>- A written on-call schedule is accessible.</li> </ul> <p><b>EMERGENCY DEPARTMENT &amp; STROKE UNIT</b></p> <ul style="list-style-type: none"> <li>- An adequate number of qualified physicians must be available to provide rapid diagnosis and treatment of acute stroke patients. Physicians are: <ul style="list-style-type: none"> <li>a) Available 24 hours, every day of the year</li> <li>b) Accessible by phone within 20 minutes</li> <li>c) Onsite within 45 minutes of request</li> </ul> </li> <li>- A written on-call schedule is accessible.</li> <li>- Physicians undertake two (2) hours annually of education specifically related to diagnosis / assessment and management of acute stroke / cerebrovascular disease (may be CME / policy / competency driven).</li> <li>- Physicians are able to demonstrate</li> </ul>	<p>on call at all times as per requirements.</p> <p><b>FILE REVIEW</b></p> <p>Review a sample of credentialed files for specialty staff to determine:</p> <ul style="list-style-type: none"> <li>- Licensure is current</li> <li>- Doctor is credentialed</li> <li>- Qualifications and experience are relevant and include acute stroke.</li> </ul> <p>Verify the following are in place:</p> <ul style="list-style-type: none"> <li>- Stroke program is included within the facility's organizational chart</li> <li>- The stroke program's scope of services is included with the facility's Provision of Care document</li> <li>- The organization has staffing patterns in place, which define the numbers of qualified staff required to provide patient care</li> <li>- Physicians undertake two (2) hours annually of education specifically related to diagnosis / assessment and management of acute stroke / cerebrovascular disease (may be CME / policy / competency driven).</li> </ul> <p><b>INTERVIEW</b></p> <p>During the interview, facility leaders provide:</p> <ul style="list-style-type: none"> <li>- Rationale for establishing a stroke program including community needs and available stroke care services</li> </ul>	

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
	<p>utilization and knowledge of IV tpA protocols including indication, monitoring and education to patient / significant other</p> <p><b>*NEUROSURGICAL SERVICES</b></p> <ul style="list-style-type: none"> <li>- A "call" schedule for neurosurgery is printed and available in the Emergency Department and the Stroke Unit (if neurosurgical services are provided on site).</li> </ul>		
<p><b>ACUTE STROKE RESPONSE TEAM: PHYSICIANS</b></p> <p><u>01.01.03</u></p> <p>There is a Physician (credentialed specialty doctor of medicine or osteopathic medicine) who is a member of the acute stroke response team on duty or on call at all times.</p> <p>The acute stroke response team physicians:</p> <ul style="list-style-type: none"> <li>- Are trained in the diagnosis and treatment of all types of acute stroke; and</li> <li>- Have a clear delineation of their roles and those of other staff on the acute stroke team.</li> </ul> <p>Refer to standard 02.04.04 – 02.04.07 for additional requirements.</p>	<p>There must be sufficient personnel available to respond to the specialty specific care needs of the patient population being served.</p> <p>It is not required that the Primary Stroke Center have a neurologist on staff.</p> <p>Studies demonstrate superior outcomes for acute stroke patients when managed by physicians with neurology expertise.</p> <p>The Acute Stroke Response Team physicians are identified as medical staff that are defined by the facility and may include neurologists, radiologists, neurosurgeons, as well as Emergency Department, internal medicine and family practice physicians with demonstrated training.</p> <p>Each physician on the Acute Stroke Response Team is/has:</p> <ol style="list-style-type: none"> <li>1. A member of the Medical Staff.</li> <li>2. Able to demonstrate knowledge of the Acute Stroke protocols.</li> <li>3. Other criteria agreed on by local physicians and the hospital Governing Body, such as: <ul style="list-style-type: none"> <li>- Attendance of faculty member of one (1) or more regional, national,</li> </ul> </li> </ol>	<p><b>DOCUMENT REVIEW</b></p> <p>Verify the governing body has established and monitors the enforcement of policies that ensure a doctor of medicine or osteopathy is on duty or on call at all times to provide medical care and onsite supervision when necessary.</p> <p>Review the call register and documents that assure that specialty doctors of medicine or osteopathy are on duty or on call at all times as per requirements.</p> <p>Review the stroke center policies / protocols. Verify:</p> <p>Each Acute Stroke Response Team physician meets all training and experience requirements.</p> <p><b>FILE REVIEW</b></p> <p>Review a sample of credentialed files for specialty staff to determine:</p> <ul style="list-style-type: none"> <li>- Licensure is current</li> <li>- Doctor is credentialed</li> <li>- Qualifications and experience is relevant and include acute stroke.</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
	<p>or international stroke conferences or stroke courses each year.</p> <p>– Other:</p>		
<p><b>ACUTE STROKE RESPONSE TEAM: PHYSICIAN ORIENTATION &amp; EDUCATION</b></p> <p><u>01.01.04</u></p> <p>Physicians on the Acute Stroke Response Team are oriented to the stroke protocols and receive a minimum of eight (8) hours annually of education specifically related to diagnosis / assessment and management of acute stroke / cerebrovascular disease (may be CME / policy / competency driven).</p>	<p>To remain competent with the rapid changes in technology and advances in cerebrovascular medicine, these professional staff must annually obtain continuing education relative to the management of cerebrovascular disease.</p> <p>Continuing medical education is provided to ensure physicians involved with the treatment of acute stroke patients have the required knowledge and competency to treat and diagnose cerebrovascular disease.</p> <p>Physicians undertake eight (8) hours annually of education specifically related to diagnosis / assessment and management of acute stroke / cerebrovascular disease (may be CME / policy / competency driven).</p> <p>This includes utilization and knowledge of IV tpA protocols including indication, monitoring and education to patient / significant other.</p>	<p><b>FILE REVIEW</b></p> <p>Review a sample of credentialed files for specialty staff to determine compliance with:</p> <ul style="list-style-type: none"> <li>– Orientation</li> <li>– Education requirements according to hospital protocols have been met</li> <li>– Physicians undertake eight (8) hours annually of education specifically related to diagnosis / assessment and management of acute stroke / cerebrovascular disease (may be CME / policy / competency driven).</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>
<b>Safe Physical Environment</b>			
<p><b>SAFE ENVIRONMENT AND INFECTION CONTROL</b></p> <p><u>01.02.01</u></p> <p>The program complies with and is incorporated into the hospital-wide infection control program.</p> <p>Not applicable if no structural changes since last time of survey / review.</p>	<p>Elements include:</p> <ol style="list-style-type: none"> <li>a) Infection Control Officer involvement</li> <li>b) Infection prevention</li> <li>c) Infection incident log &amp; surveillance</li> <li>d) Infection control plan</li> <li>e) Hand-hygiene</li> </ol>	<p><b>DOCUMENT REVIEW</b></p> <p>Examine infection control policies and reports that go to the governing body.</p> <p>Verify compliance with tour of facility.</p> <p>Changes to building design since last onsite accreditation / certification survey to be inspected during survey.</p> <p>If no building or structural changes (not</p>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    <input type="checkbox"/> NA</p> <p>Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
	f) Employee health	applicable).	
<b>Social Responsibility</b>			
<p><b>HEALTH PROMOTION</b></p> <p><u>01.03.01</u></p> <p>The service provides at least two programs each year to educate the public about prevention and recognition of stroke and the availability of acute stroke therapies.</p> <p>Program evaluations are collected and analyzed.</p>	<p>The mission of the service must incorporate a responsibility for educating the community regarding stroke recognition and prevention.</p> <p>Studies have demonstrated that community education programs are an effective means for raising public awareness with recognizing the symptoms of stroke and thus reducing time delays with presenting for treatment.</p> <p>Community education programs can take place at the hospital or elsewhere in the community. Studies demonstrate that pre-hospital delays are related to the time associated with recognition of the seriousness of their symptoms, making the decision to seek help, and calling for an ambulance. Studies also show that time is reduced when a witness, e.g., family member, friend, or coworker, makes the decision to call an ambulance.</p> <p>Stroke education is provided and evaluated by the service twice a year.</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Verify:</p> <ul style="list-style-type: none"> <li>- The service provides at least two programs per year to educate the public about prevention and recognition of stroke and the availability of acute therapies</li> <li>- Program evaluations are collected and analyzed</li> <li>- Improvements were made following the evaluation review</li> </ul>	<input type="checkbox"/> C <input type="checkbox"/> NC    Comment:
<b>CLINICAL</b>			
<b>Service Infrastructure</b>			
<p><b>SPECIALTY UNITS: EMERGENCY DEPARTMENT</b></p> <p><u>02.00.01</u></p> <p>Emergency Department is staffed with ample numbers of qualified personnel. Physicians and registered nurses are available 24 hours a day, every day.</p> <p>Facilities that do not have the capability</p>	<p>The treatment of acute stroke patients is time sensitive and requires a multidisciplinary approach. Care that is provided using evidence-based protocols may improve patient outcomes, expedite patient care, possibly reduce hospital length of stays, and decrease costs.</p> <p>There is an infrastructure in place to</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review policies, staffing records, and records of daily patient visits</p> <ul style="list-style-type: none"> <li>- For the number and acuity of patients treated in the Emergency Department, ample staffing is provided 24 hours a day, every day.</li> <li>- A transfer agreement is in place with</li> </ul>	<input type="checkbox"/> C <input type="checkbox"/> NC    Comment:

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p>to provide inpatient care for stroke patients after the administration of thrombolytic therapy should have a transfer agreement with a facility that offers a higher level of care.</p> <p>Monthly data are tallied, aggregated, and trended. QAPI data are submitted to the quality improvement subcommittee of the Primary Stroke Center measuring:</p> <ul style="list-style-type: none"> <li>• Time of EMS notification to time of patient arrival in the Emergency Department (if applicable in your community).</li> <li>• ED door to physician time within ten minutes.</li> <li>• Number of patients transferred to a higher level of care.</li> <li>• Additional, refer to applicable performance measures.</li> </ul>	<p>provide for the hyper-acute and acute care of stroke patients. To be compliant with the Emergency Medical Treatment and Active Labor Act (EMTALA), a transfer agreement is expected to be in place with at least one facility that offers a higher level of care to stroke patients.</p> <p>Multi-channel physiological monitoring (including is cardiac respiratory and blood pressure) is required in the stroke unit.</p> <p>Cardiac monitoring is required, as studies have demonstrated that stroke unit patients with continuous cardiac monitoring had significantly more cardiac arrhythmias detected than unmonitored stroke unit patients.</p>	<p>a facility that provides a higher level of care.</p> <ul style="list-style-type: none"> <li>– The Emergency Department submits QAPI data.</li> </ul> <p><b>OBSERVATION</b></p> <p>Tour the Emergency Department to observe activity and flow.</p> <p>Verify:</p> <ul style="list-style-type: none"> <li>– Physiologic monitoring</li> <li>– Cardiac monitoring</li> </ul>	
<p><b>SPECIALTY UNITS: STROKE UNIT</b></p> <p><u>02.00.02</u></p> <p>It is required that the service has a Stroke Unit established to provide continuity of care following the immediate, hyperacute phase of an acute stroke.</p> <p>The Stroke Unit has in place:</p> <ul style="list-style-type: none"> <li>– Written patient care protocols</li> <li>– Staffing plan with dedicated personnel to manage acute stroke patients</li> <li>– Multi-channel physiological monitoring (including is cardiac respiratory and blood pressure)</li> <li>– Personnel who have neurological /</li> </ul>	<p>Studies demonstrate the efficacy of stroke units in the management of patients with acute stroke. Stroke patients who received care on a dedicated Stroke Unit have 17% lower mortality, 8% decrease in hospital length of stay, and a 7% increase in being able to live at home compared to patients cared for a general medical surgical unit.</p> <p>AHA/ASA guidelines recommend door to stroke unit admission within 3 hours.</p> <p>The Stroke Unit does not need to be a specified ward of the hospital, nor does it need to be an Intensive Care Unit, although the ICU and Stroke Unit may share space.</p> <p>When it is not possible to have a distinct Stroke Unit, a team of physicians,</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review documents to verify the following are in place:</p> <ul style="list-style-type: none"> <li>– The Stroke Unit is described in the Provision of Care document.</li> <li>– A staffing plan to ensure the number and acuity of patients treated in the Stroke Unit and ample staff with acute stroke care experience / experience in managing patients with acute stroke / cerebrovascular disease</li> <li>– For dedicated Stroke Units, the number and acuity of patients treated in the Stroke Unit / ICU, ample staffing is provided 24 hours a day, every day</li> <li>– Acute Stroke Patient Census</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    <input type="checkbox"/> NA</p> <p>Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p>neurosurgical experience</p> <ul style="list-style-type: none"> <li>– QAPI data is submitted to the quality improvement subcommittee of the PSC measuring performance.</li> </ul> <p>*This standard is not applicable if the Stroke unit is located in the ICU.</p>	<p>nurses, speech pathologists, physical and occupational therapists that have the training and expertise in managing patients with cerebrovascular disease provide care for stroke patients.</p> <p>A trained member of the Primary Stroke Center team to ensure the patient receives appropriate and efficient, protocol-driven care manage individuals on the Stroke Patient Care protocols daily.</p> <p>The operations and scope of service of the Stroke Unit is described in the Provision of Care document.</p> <p>Multi-channel physiological monitoring (including cardiac, blood pressure, respiratory and oxygenation) is required in the stroke unit.</p> <p>Cardiac monitoring is required, as studies have demonstrated that stroke unit patients with continuous cardiac monitoring had significantly more cardiac arrhythmias detected than unmonitored stroke unit patients. If an acute stroke patient requires the higher level of care provided in an ICU setting for a period of time, the patient must be transferred.</p>	<p>(admission and discharge) records</p> <ul style="list-style-type: none"> <li>– The Stroke Unit submits QAPI data</li> </ul> <p><b>OBSERVATION</b></p> <p>Tour the Stroke Unit to verify that: Continuous telemetry, noninvasive blood pressure monitoring.</p>	
<p><b>SPECIALTY UNITS: INTENSIVE CARE UNIT</b></p> <p><u>02.00.03</u></p> <p>It is a requirement that the primary stroke center that provides neurosurgical services has an ICU established to provide continuity of care following the immediate, hyperacute phase of an acute stroke.</p> <p>The ICU has in place:</p>	<p>The operations and scope of service of the ICU is described in the Provision of Care document.</p> <p>ICU Neurologist has experience &amp; training in:</p> <ul style="list-style-type: none"> <li>– Therapeutic strategies to optimize cerebral perfusion and minimize intracranial hypertension</li> <li>– Management of status epilepticus</li> <li>– Experience with extraventricular</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Review documents to verify the following are in place:</p> <ul style="list-style-type: none"> <li>– A staffing plan to ensure the number and acuity of patients treated in the ICU and ample staff with acute stroke care experience 24 hours a day, every day</li> <li>– Acute Stroke Patient Census (admission and discharge) records</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    <input type="checkbox"/> NA</p> <p>Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<ul style="list-style-type: none"> <li>- Designated beds</li> <li>- Designated nursing team and medical team have training and expertise in neurocritical care in the diseases that the patients have</li> <li>- Staffing plan</li> <li>- Multi-channel physiological monitoring (including is cardiac respiratory and blood pressure)</li> </ul>	<p>drainage; central venous lines; arterial lines; intubation, bronchoscopy; tracheostomy; and manipulation of mechanical ventilators and vasoactive agents</p> <p>Designated nursing team and medical team have training and expertise in neurocritical care in the diseases that the patients have.</p> <p>Multi-channel physiological monitoring (including cardiac, blood pressure, respiratory and oxygenation) is required in the stroke unit.</p>	<ul style="list-style-type: none"> <li>- The ICU submits QAPI data</li> </ul> <p><b>OBSERVATION</b></p> <p>Tour the ICU to verify that: Continuous telemetry, noninvasive blood pressure, monitoring, and arterial catheter capabilities are available.</p>	
<p><b>X-RAY AND ECG SERVICES</b></p> <p><u>02.00.04</u></p> <p>For patients that were eligible for tPA but did not receive tPA:</p> <ul style="list-style-type: none"> <li>- Electrocardiogram is available if ordered and completed in a timely manner.</li> </ul> <p>Chest X-ray services, if ordered for acute stroke patients, are completed in a timely manner.</p>	<p>AHA/ASA Guidelines recommend that all patients should undergo cardiovascular evaluation. A baseline electrocardiogram is recommended, however, it should not delay initiation of tPA.</p> <ul style="list-style-type: none"> <li>- ECG services are provided in a timely manner.</li> <li>- Chest X-ray services are provided in a timely manner.</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Verify:</p> <p>For patients that were eligible for tPA but did not receive tPA:</p> <ul style="list-style-type: none"> <li>- Electrocardiogram services, if ordered for acute stroke patients, are completed in a timely manner</li> <li>- Chest x-ray, if ordered for acute stroke patients, are completed in a timely manner</li> </ul>	<input type="checkbox"/> C <input type="checkbox"/> NC    Comment:
<p><b>LABORATORY SERVICES</b></p> <p><u>02.00.05</u></p> <p>Capacity to perform lab testing within 45 minutes is available 24 hours a day - every day of the year.</p> <p>The Laboratory Director provides written commitment to provide the necessary services required by the stroke center.</p> <p>The Laboratory Director provides a letter of commitment indicating that the required laboratory services will be completed within the agreed upon</p>	<p>The stroke center requires rapid laboratory results to assist with the diagnosis and appropriate treatment of acute stroke patients.</p> <p>The stroke center and the Director of Laboratory Services collaboratively identify the laboratory tests and determine acceptable turnaround times for results.</p> <p>*AHA/ASA guidelines state "although it is desirable to know the results of these tests before giving intravenous recombinant tissue-type plasminogen activator, fibrinolytics therapy should not</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review medical records to verify lab tests completed within timeframes.</p> <p>Verify:</p> <ul style="list-style-type: none"> <li>- The Laboratory Director's letter of commitment is in place.</li> <li>- The scope of service for the Laboratory is described in the Provision of Care document</li> <li>- The agreed upon laboratory tests are available 24-hours a</li> </ul>	<input type="checkbox"/> C <input type="checkbox"/> NC    Comment:

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p>timelines.</p> <p>The acute stroke leaders establish a list of necessary lab tests, timeframes and parameters necessary for diagnosis, management and monitoring of acute stroke.</p> <p>The facility tracks lab results for those patients who were eligible for tPA but did not receive tPA. QAPI data are submitted to the quality improvement subcommittee of the PSC measuring the turnaround time for:</p> <ul style="list-style-type: none"> <li>– Point of care blood glucose</li> <li>– International Normalized Ratio* (INR) (if clinically indicated)</li> <li>– Prothrombin Time* (PT) and Partial Thromboplastin Time* (PTT) (if clinically indicated)</li> <li>– Additional labs determined by stroke protocol / physician order.</li> </ul>	<p>be delayed while waiting the results unless (1) there is clinical suspicion of a bleeding abnormality or thrombocytopenia, (2) the patient has received heparin or warfarin, or (3) the patient has received other anticoagulants (direct thrombin inhibitors or direct factor Xa inhibitors).</p> <p>The Laboratory Director commits to make the lab results available within 45 minutes of patient arrival.</p> <p>Lab tests required include:</p> <ul style="list-style-type: none"> <li>– Point of care blood glucose</li> <li>– INR* (if clinically indicated)</li> <li>– PT* and PTT* (if clinically indicated)</li> <li>– Additional labs determined by stroke protocol / physician order.</li> </ul>	<p>day, every day.</p> <p>The facility tracks lab results for those patients who were eligible for tPA but did not receive tPA. QAPI data are submitted to the quality improvement subcommittee of the primary stroke center measuring the 45 minute turnaround time for:</p> <ul style="list-style-type: none"> <li>– Point of care blood glucose</li> <li>– INR* (if clinically indicated)</li> <li>– PT* and PTT* (if clinically indicated)</li> <li>– Additional labs determined by stroke protocol / physician order.</li> </ul>	
<p><b>PHARMACOLOGICAL SERVICES</b></p> <p><u>02.00.06A</u></p> <p>An appropriate amount of tPA and anticoagulant reversal agents are available 24 hours a day, every day.</p>	<p>Each facility determines the type and the amount of drugs to be available to the acute stroke response team (including tPA and anticoagulant reversal agents).</p> <p>Medication policies / procedures required include:</p> <ul style="list-style-type: none"> <li>– A list of and access to identified required medications to be available for the stroke center at all times</li> <li>– Required medications list to include guidelines for use and management of Intra-arterial fibrinolytics and thrombolytic therapy (IV)</li> <li>– Use of anticoagulation reversal agents</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Review the policies/protocols.</p> <p>Verify:</p> <ul style="list-style-type: none"> <li>– There is a list of required drugs available to the acute stroke response team</li> </ul> <p><b>INTERVIEW</b></p> <p>Through conversations with various members of the Acute Stroke Response Team and the Emergency Department verify:</p> <ul style="list-style-type: none"> <li>– Ample supplies of the thrombolytic drugs are available and delivered in a timely manner.</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
	<p>The acute stroke response clinicians and Pharmacy collaboratively develop a written protocol that describes:</p> <ul style="list-style-type: none"> <li>– The type and amount of thrombolytic drugs to have available immediately (timeframe for use to be determined by the acute stroke response team leaders)</li> <li>– Proper drug storage/temperature controls</li> <li>– Physician orders for tPA, if any</li> <li>– Transport, delivery and preparation of required medication</li> <li>– Return of unused product to vendor</li> <li>– Purchasing/procurement procedures and back-up distributor</li> <li>– While the service may elect to store the thrombolytic drugs in a location that is convenient for the practitioners, Pharmacy maintains oversight and control of these drugs</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Review facility documents. Verify:</p> <ul style="list-style-type: none"> <li>– A protocol is in place addressing all required elements.</li> <li>– Pharmacy maintains oversight of all drugs, e.g. monthly drug control inspections.</li> </ul>	
<p><b>PHARMACOLOGY: USE OF TPA</b></p> <p><u>02.00.06B</u></p> <p>The Primary Stroke Center has Patient Care Protocols relative to patient criteria, administration of intravenous tPA therapy, and patient monitoring.</p> <p>The Primary Stroke Center establishes a goal for “Door – to – Needle” time for administration of tPA within three (3) hours of symptom onset.</p> <p>Hospital medication policies and procedures reflect current evidence based practices and research.</p> <p>Written consent for use of medication as</p>	<p>Studies have shown the efficacy of using written care protocols for tPA in the treatment and management of patients presenting with symptoms of acute stroke. The facility considers the development of a tPA patient inclusion/exclusion checklist.</p> <p>AHA/ASA guidelines recommend door to drug (≤80% compliance) within 60 minutes.</p> <p>Minimally, the following guidelines are available in all areas of the facility that provide intravenous tPA therapy:</p> <ul style="list-style-type: none"> <li>– Patient eligibility criteria</li> <li>– Contraindications/exclusions to</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Review the policies/protocols.</p> <p>Verify:</p> <ul style="list-style-type: none"> <li>– Patient Care Protocols are in place relative to patient criteria (inclusion and exclusion), administration of intravenous tPA therapy, and patient monitoring</li> <li>– The service has established a goal for “door to needle” time and documents reasons for not giving tPA</li> <li>– Service has door to needle time thrombolytic therapy protocols with</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p>per hospital protocol.</p>	<p>therapy</p> <ul style="list-style-type: none"> <li>- Usual doses/dosing ranges/rate of infusion</li> <li>- Treatment protocols for inadvertent overdose, infiltration, drug related hemorrhage, and medication errors</li> <li>- Special equipment required for:               <ul style="list-style-type: none"> <li>o Drug administration</li> <li>o Patient monitoring</li> </ul> </li> <li>- Personnel qualified to administer drug</li> <li>- Patient care and monitoring requirements before, during, and following thrombolytic therapy</li> <li>- Disposal/return of unused product</li> <li>- Drug spill clean-up procedure</li> </ul>	<p>appropriate eligibility / exclusion criteria</p>	
<p><b>NEUROIMAGING</b></p> <p><u>02.00.07</u></p> <p>Neuro-imaging services are available 24 hours a day, every day, which have the capability of providing computerized tomography of the head or a magnetic resonance imaging scan within 25 minutes of patient arrival and the film read within 20 minutes of scan completion.</p> <p>Monthly data are tallied, aggregated, and trended. QAPI data are submitted to the quality improvement subcommittee of the Primary Stroke Center measuring:</p> <ol style="list-style-type: none"> <li>1. Door to CT initiation within 25 minutes.</li> <li>2. Door to interpretation within 45</li> </ol>	<p>For acute stroke patients, a rapid establishment of an accurate diagnosis is vital and requires brain-imaging studies.</p> <p>Personnel are available 24 hours a day, every day that have the experience and training to use the CT or MRI equipment.</p> <p>The operations and scope of service of the Neuroimaging Services department are described in the Provision of Care document.</p> <p>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 CT scan or MRI scan.</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review Neuroimaging Services documents.</p> <p>Verify:</p> <ul style="list-style-type: none"> <li>- The scope of service for Neuroimaging Services is described in the Provision of Care document.</li> <li>- Neuroimaging services are available 24 hours a day, every day.</li> <li>- A physician qualified in the interpretation of cranial CT scans or MRI imaging is scheduled 24 hours a day, every day.</li> <li>- QAPI data relative to the timeliness of imaging services is submitted.</li> <li>- Door to CT initiation within 25 minutes.</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
minutes.	The qualified physician may be onsite or available through remote access, e.g., telemedicine, consistent with state and local guidelines.	<ul style="list-style-type: none"> <li>– Door to interpretation within 45 minutes.</li> </ul>	
<p><b>NEUROSURGICAL SERVICES</b></p> <p><u>02.00.08A</u></p> <p>Systems are in place for acute stroke patients requiring neurosurgical services.</p> <p><b>Hospitals with Neurosurgical Services:</b></p> <p>Neurosurgical services are available within two (2) hours of when it is deemed to be clinically necessary.</p> <p>The Primary Stroke Center has a written plan that outlines neurosurgical coverage (including support personnel).</p> <p>This plan is approved by the neurosurgeon(s), the leadership of the Primary Stroke Center, and all involved facilities.</p> <p>A “call” schedule for neurosurgery is printed and available in the Emergency Department and the Stroke Unit.</p> <p><b>Hospitals without Neurosurgical Services:</b></p> <p>If neurosurgical services are not provided on-site, the Primary Stroke Center has a pre-specified transfer plan in place.</p> <p>The Primary Stroke Center has written policy describing the transfer protocol.</p> <p>Monthly data are tallied, aggregated, and trended. QAPI data are submitted to the quality improvement</p>	<p>For those acute stroke patients requiring a neurosurgical procedure:</p> <p><b>Hospitals with Neurosurgical Services</b></p> <p>A neurosurgeon is available within two hours of the identified need (not upon arrival to the Emergency Department.)</p> <p>Facilities that perform neurosurgical procedures must have qualified support personnel available 24 hours a day, every day.</p> <p>The following personnel must be available to assist with neurosurgical procedures:</p> <ul style="list-style-type: none"> <li>– Operating room staff (if surgery is performed on-site)</li> <li>– Radiology staff</li> <li>– Pharmacist</li> <li>– A qualified anesthesia provider to manage acute stroke patients.</li> </ul> <p><b>Hospitals without Neurosurgical Services</b></p> <p>For facilities without a neurosurgeon, this expectation can be accomplished by transferring the patient to a facility with a neurosurgeon.</p> <p><b>Transfer Protocol:</b></p> <ul style="list-style-type: none"> <li>– The transfer agreement must be with a facility that has neurosurgery 24/7</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Review Primary Stroke Center Review operating room staffing records to verify a system is in place ensuring the availability of qualified neurosurgical and support personnel 24 hours a day, every day.</p> <ul style="list-style-type: none"> <li>– The written neurosurgical coverage plan.</li> <li>– The neurosurgery “on-call” list</li> <li>– Ample staffing available 24 hours</li> <li>– QAPI data are submitted for analysis</li> </ul> <p><b>FILE REVIEW</b></p> <p>Review the personnel files of the personnel listed.</p> <p>Verify The support personnel have the training and expertise to manage patients with cerebrovascular disease.</p> <p><b>DOCUMENT REVIEW</b></p> <ul style="list-style-type: none"> <li>– The written Transfer Policy</li> <li>– Transfer plan</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p>subcommittee of the Primary Stroke Center measuring:</p> <p>Neurosurgical services (including support personnel) are available within 2 hours of need.</p>	<ul style="list-style-type: none"> <li>- When patients must be transferred, there is a written protocol that has been developed collaboratively between the transferring and receiving facilities</li> <li>- This policy is reviewed at least annually by all involved facilities and signed by the appropriate leadership</li> <li>- The transfer plan is available in all areas of the hospital that provides care to Stroke patients including, but not limited to the Emergency Department, Stroke Unit, ICU, Radiology, and the Operating Room</li> </ul>		
<p><b>NEUROSURGICAL EQUIPMENT &amp; SUPPLIES</b></p> <p><u>02.00.09B</u></p> <p>Facilities that perform neurosurgical procedures have the equipment and supplies necessary to perform neurosurgery.</p> <p>Facilities must be maintained to ensure an acceptable level of safety and quality.</p> <p>Supplies must be maintained to ensure an acceptable level of safety.</p>	<p>Administration demonstrates support of the Primary Stroke Center by providing a budget that ensures the availability of operating room supplies and equipment necessary to perform neurosurgical procedures.</p> <p>Minimally, for facilities that perform neurosurgical procedures, equipment is readily available for the evacuation of an intracranial hematoma.</p> <p>Equipment must be maintained to ensure an acceptable level of safety (see HFAP Acute Hospital Manual standard #11.08.03). Review of the following are deferred to the triennial hospital accreditation survey:</p> <ol style="list-style-type: none"> <li>1. Preventive / maintenance logs.</li> <li>2. Equipment and supplies are maintained in a manner that ensures safety.</li> <li>3. Equipment and supplies are stored according to manufacturer's recommendations.</li> </ol>	<p><b>INTERVIEW</b></p> <p>Interview members of the Primary Stroke Center and the person in charge of neurosurgical equipment.</p> <p>Verify:</p> <p>The facility has the supplies and equipment necessary to perform neurosurgical procedures.</p> <p><b>OBSERVATION</b></p> <p>Verify:</p> <ol style="list-style-type: none"> <li>1. A clinical or biomedical engineer routinely checks all medical devices and equipment.</li> <li>2. Supplies are stored in a safe manner.</li> </ol>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p><b>TELEMEDICINE / TELERADIOLOGY</b> <u>02.00.09</u></p> <p>In certain remote and underserved areas, telemedicine may be used to assess patients with symptoms of acute stroke and provide treatment within the 3-hour window. When teleradiology is used, a written agreement must be in place requiring availability of the service 24 hours a day, every day and that the interpretation must be completed within 20 minutes of scan completion.</p> <p>Training is provided at least twice a year for personnel involved with this technology at both the Primary Stroke Center and the remote location.</p> <p>When telemedicine is used and the practitioner and patient are located in different states, the practitioner providing the patient care service must be licensed and/or meet the other applicable standards that are required by State or local laws in both the state where the practitioner is located and the state where the patient is located.</p>	<p>Telemedicine is defined as “the process by which electronic, visual, and audio communications are used to provide diagnostic and consultation support to practitioners at distant sites, assist in or directly deliver medical care to patients at distant sites, and enhance the skills and knowledge of distant medical care providers.”</p> <p>Telemedicine has been utilized in primary care offices, operating rooms, and home based care. Utilizing this technology, treatment options not previously available at remote sites is possible. Through this live audiovisual link, the Stroke Center can extend its expertise to evaluate patients, examine CT/MRI images, provide real-time consultation with the patient, family, and practitioner, and when appropriate, supervise the administration of thrombolytic therapy.</p> <p>The use of telemedicine may be restricted by state laws / regulations.</p> <p>If the remote facility is across state lines, the medical staff may need licensure in both states.</p> <p>Medical staff will need to be members of the medical staff at all remote locations.</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review the written agreement.</p> <p>Verify:</p> <ol style="list-style-type: none"> <li>1. Services are available 24 hours a day, every day.</li> <li>2. Services include interpretation of imaging within 20 minutes of scan completion.</li> <li>3. Evidence of training of radiologists at main and remote locations.</li> </ol> <p><b>FILE REVIEW</b></p> <p>Verify the medical staff:</p> <ol style="list-style-type: none"> <li>1. Are licensed to practice medicine in all applicable states.</li> <li>2. Are the physicians, members of the medical staff at the remote location?</li> </ol>	<input type="checkbox"/> C <input type="checkbox"/> NC    Comment:
<b>Standards of Care</b>			
<p><b>TARGET POPULATION</b> <u>02.01.01</u></p> <p>The program is defined in writing. Evidence of consideration to service area and identified target population is evidenced.</p> <p>The needs of the target population are identified and services offered</p>	<p>The Level of stroke certification is promoted to the public. Additionally, it is recommended that facilities perform an assessment of the community to determine the capabilities available in other local and regional facilities.</p> <p>The mission and scope of services offered are supportive of the community needs.</p>	<p><b>DOCUMENT REVIEW</b></p> <p>How is the target population identified and how is the need for the service measured?</p> <p>How does the community know about the service?</p>	<input type="checkbox"/> C <input type="checkbox"/> NC    Comment:

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
appropriate to the needs.	The population is informed of the services offered and the hours of operation.		
<p><b>ACCESS</b></p> <p><u>02.01.02</u></p> <p>The population has access to care that is appropriate for condition.</p>	<p>Access and admission to the stroke unit is prioritized according to patient care needs.</p> <p>Access is open for all persons including those with disabilities and special needs.</p> <p>Patients are aware of the scope of services provided by the organization.</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review medical records, Verify that: appropriate admission placements are made.</p> <p>Interview the CEO or appropriate individual designated by the hospital to determine compliance with federal laws related to patient health and safety (for example, ask if the hospital was cited since its last survey for any violation of section 504 of the rehabilitation act of 1973 related to denying people with Disabilities access to care. If so, verify that satisfactory corrections have been made to bring the hospital into compliance with that law.)</p> <p>Refer or report noted noncompliance with federal laws and regulations to the appropriate agency having jurisdiction (e.g., accessibility issues, etc.)</p>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>
<p><b>PATIENT RIGHTS</b></p> <p><u>02.01.03</u></p> <p>Patient rights include (but not limited to):</p> <p>Informed consent</p> <p>Advance care directives</p> <p>Additional needs: disability, cultural; linguistic</p>	<p><b>Informed Consent</b></p> <p>The medical record must contain a document recording the patient's informed consent for those procedures and treatments that have been specified as requiring informed consent.</p> <p>Procedure for patients to withdraw consent is available and information provided to participants.</p> <p><b>Advance Care Directives</b></p> <p>The patients are informed of the following:</p> <ul style="list-style-type: none"> <li>- Services offered</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Verify the following:</p> <ul style="list-style-type: none"> <li>- Organizational policies for informed consent and advanced directives are available, relevant and current.</li> <li>- Advanced care directives are discussed with the patient / significant other at time of admission</li> <li>- Previous directives are reviewed with the patient</li> <li>- Previous / new directives are placed on the chart</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
	<ul style="list-style-type: none"> <li>- Treatment options available</li> <li>- Consequences of non-compliance with recommended treatment options</li> <li>- Privacy and confidentiality policy</li> <li>- Rights and responsibilities</li> </ul> <p><b>PATIENT RIGHTS</b></p> <p>Patient rights and treatment are communicated in a language that the patient is able to understand. Factors considered include:</p> <ul style="list-style-type: none"> <li>- Cultural sensitivity</li> <li>- Language spoken</li> <li>- Literacy level</li> </ul>		
<b>Delivery of Care</b>			
<p><b>PROGRAM DESIGN</b></p> <p><u>02.02.01</u></p> <p>Program design including policies and procedures are evidenced based, current and accessible. Reference to the Brain Attack Coalition and American Heart Association / American Stroke Association Guidelines (AHA/ASA).</p> <p>The program leaders are involved with:</p> <ol style="list-style-type: none"> <li>a) Developing the mission and scope of service.</li> <li>b) Designing the program to fit within the defined scope.</li> <li>c) Establishing patient care protocols.</li> <li>d) Evaluating service.</li> </ol> <p>Protocols must be developed based on published evidence-based guidelines, when possible, and tailored by the multidisciplinary members that provide</p>	<p>Protocols provide guidelines for care.</p> <p>The guidelines must be adhered to as much as possible; however, at times, there may be variations to the plan due to the clinical presentation, physician preference, or choices at the request of the patient / family.</p> <p>The program has a mission and its scope of service is outlined.</p> <p>Patient care protocols / pathways are developed for assessment, management and monitoring of patients with:</p> <ul style="list-style-type: none"> <li>- Ischemic Stroke</li> <li>- Hemorrhagic Stroke</li> <li>- Other (determined by service)</li> </ul> <p>Protocols include the use of a recognized assessment tool (for example NIHSS).</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review protocols / pathways / policies.</p> <p>Verify:</p> <ul style="list-style-type: none"> <li>- The required protocols / pathways / policies are in place.</li> <li>- The protocols have been reviewed within the past 12 months.</li> <li>- A Neurologist contributed to the development of the protocols.</li> <li>- Protocols / pathways / policies for management of stroke patients are available and accessible to staff in applicable departments (electronic or paper).</li> <li>- Stroke care resources are available to staff.</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p>care and treatment for acute stroke patients.</p> <ul style="list-style-type: none"> <li>- Include a neurologist with the protocol development</li> <li>- Include representatives from Pharmacy, Radiology, Laboratory, the Emergency Department, the Stroke Unit / ICU, and Physical Rehabilitation with the development of these protocols</li> <li>- Include annual review and revision, as needed</li> </ul>	<p>Protocols have been developed based on published evidence-based guidelines, and tailored by the multidisciplinary members that provide care and treatment for acute stroke patients.</p> <ul style="list-style-type: none"> <li>- Include a neurologist with the protocol development</li> <li>- Include representatives from Pharmacy, Radiology, Laboratory, the Emergency Department, the Stroke Unit / ICU, and Physical Rehabilitation with the development of these protocols</li> <li>- Protocols / pathways are reviewed annually</li> </ul> <p>Clinical practice guidelines and resources are available to staff.</p>		
<p><b>ASSESSMENTS</b></p> <p><u>02.02.02</u></p> <p>Assessments are determined based on best clinical practice research and include timeframes where applicable.</p> <p>Assessments on admission include discharge risk (rehabilitation / case management) assessment.</p> <p>A significant other is involved in the assessment process (with consent from the patient) where appropriate.</p> <p>Right patient, right clinician, right assessment, right timeframe.</p>	<p>Initial patient assessments provide the baseline of the patient at the time of admission. From these assessments, the needs of the patient are identified and the plan of care is developed.</p> <p>Protocols / pathways / policies identify the time frames for assessments.</p> <p>Assessments include (but not limited to):</p> <ul style="list-style-type: none"> <li>- Assessments on arrival to ED</li> <li>- Physiological monitoring and management</li> <li>- Use of recognized assessment tools (e.g. NIHSS)</li> <li>- Dysphagia screening</li> <li>- Comorbidities</li> </ul> <p><b>INTERDISCIPLINARY CARE</b></p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review the assessment policies to verify the type of assessments and timeframes.</p> <p>Review medical records, Verify:</p> <ul style="list-style-type: none"> <li>- The patient screening process documents and assessment of the condition / disease specific needs of patients are completed, current and present.</li> </ul> <p><b>CHART REVIEW</b></p> <p>Review a minimum of five (5) inpatient and five (5) outpatient records to verify initial assessments by all disciplines are appropriate, complete and timely.</p> <p>Verify initial assessments are completed and within timeframe.</p> <p>Verify that an updated medical record</p>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
	<p>Assessments are performed by personnel with expertise in acute stroke management relevant to patient deficits / needs for care.</p> <p>Assessments are to be performed to evaluate individual patients before and after surgery / procedures.</p>	<p>entry documenting an examination for any changes in the patient's condition was completed and documented in the patient's medical record within 24 hours after admission or registration.</p> <p>Verify interdisciplinary assessments have been conducted according to timeframes and observations documented.</p>	
<p><b>PLAN OF CARE</b></p> <p><u>02.02.03</u></p> <p>Each patient will have a comprehensive, integrated, multidisciplinary plan of care, which is developed from the initial patient assessment.</p> <p>The individualized patient plan of care addresses strategies to prevent stroke related complications.</p> <p>Acute stroke patients are evaluated for the presence of treatable stroke risk factors. The individualized patient plan of care addresses risk factors and strategies to prevent a secondary stroke.</p> <ul style="list-style-type: none"> <li>- Comorbidities</li> <li>- Hypertension</li> <li>- Cigarette smoking</li> <li>- Type 2 Diabetes mellitus</li> <li>- Atrial Fibrillation</li> <li>- Hyperlipidemia</li> <li>- Obstructive Sleep Apnea</li> </ul>	<p>According to the Brain Attack Coalition, nearly one-third of stroke patients worsen during the initial 24 to 48 hours after stroke onset.</p> <p>Care of the acute stroke patient includes prevention of secondary complications such as aspiration, airway obstruction, seizures, hypertension, deep vein thrombosis, and cardiac arrhythmias.</p> <p>Plan of care incorporates supportive care and treatment of acute complications.</p> <p>The plan of care / care pathway is interdisciplinary and all treatments / procedures relating to the care of the patient are documented with effect.</p> <p>Risk factors for a secondary stroke are identified and strategies for reducing risks are initiated. The medical record reflects that these risks and treatment strategies / decisions not to treat, are discussed with the patient.</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Standards of care may exist as pre-developed care plans, protocols, or care map formats.</p> <p>Review inpatient and outpatient records. The plan of care should be consistent with the observations noted in the progress notes. Verify:</p> <ul style="list-style-type: none"> <li>- Co-morbidities are addressed through the plan of care</li> <li>- A plan of care is initiated within the established timeframe.</li> <li>- Strategies to prevent stroke related complications are implemented, as appropriate, and documented in the medical record/plan of care</li> <li>- Strategies to prevent a secondary stroke, including decisions not to treat, are discussed with the patient and addressed in the medical record / plan of care</li> <li>- The plan of care is updated whenever there are significant changes in the list of patient problems, needs and diagnosis</li> <li>- The plan of care is discussed with the patient and significant other</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p><b>REHABILITATION</b> <u>02.02.04</u></p> <p>Patients on the Acute Stroke Protocol receive an initial evaluation by physical therapy and additional evaluations according to clinical need from speech and language pathology, and occupational therapy.</p> <p>A baseline functional assessment is documented.</p> <p>Rehabilitation forms part of the plan of care and according to deficit / need of care the following services are made available according to need / deficit:</p> <ul style="list-style-type: none"> <li>- Physical therapist</li> <li>- Speech therapist</li> <li>- Occupational therapist</li> </ul> <p>The following specialties will be made available as needed:</p> <ul style="list-style-type: none"> <li>- Social worker</li> <li>- Psychologist</li> </ul>	<p>Following a stroke, 50 – 70% of patients regain their functional independence. However, as many as 15-30% are permanently impaired. As many as 20% of patients require institutional care three months after their stroke.</p> <p>Patient Care Protocols outline the sequence and timeline for the initial physical therapy, speech therapy, and occupational therapy evaluations.</p> <p>Studies demonstrate that early initiation of physical rehabilitation contributes to improved functional outcomes in patients diagnosed with acute stroke.</p> <p>A dysphagia screen must be performed prior to receiving anything by mouth to establish the risk for aspiration.</p> <p><b>Note:</b> At a minimum, the dysphagia screen should include:</p> <ul style="list-style-type: none"> <li>- Facial Paresis and Normal Symmetrical Movement</li> <li>- Gag Reflex</li> <li>- Aphasia</li> </ul> <p>Early mobilization, with appropriate monitoring and safety measures, can be accomplished in some cases as soon as 24 – 48 hours after the stroke.</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review policies and procedures.</p> <p>Verify that Patient Care Protocols address the timeline for the initial physical rehabilitation evaluations.</p> <p><b>RECORD REVIEW</b></p> <p>Review medical records of acute stroke patients.</p> <p>Verify:</p> <ul style="list-style-type: none"> <li>- Patients received the initial physical rehabilitation evaluation</li> <li>- The initial dysphagia screen was completed prior to receiving anything by mouth</li> </ul>	<input type="checkbox"/> C <input type="checkbox"/> NC    Comment:
<b>Discharge Preparation</b>			
<p><b>DISCHARGE ASSESSMENTS AND POST HOSPITAL CARE COORDINATION</b> <u>02.03.01</u></p> <p>The discharge plan must be initiated as soon as possible after admission. As changes in the patient’s condition and needs occur, the discharge plan must be reassessed and updated to address</p>	<p>Risk factors for a secondary stroke are identified and strategies for reducing risks are initiated. The medical record reflects that these risks and treatment strategies / decisions not to treat are discussed with the patient.</p> <p>The capacity for self-care includes the ability and willingness for such care.</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review patient care plans for discharge planning interventions.</p> <p>Review medical records.</p> <p>Verify:</p> <p>Various disciplines are involved with discharge planning, including physical,</p>	<input type="checkbox"/> C <input type="checkbox"/> NC    Comment:

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p>those changes.</p> <p>Factors to consider: functional status, cognitive ability of the patient, and family support.</p> <p>A discharge plan is prepared for each acute stroke patient. The discharge plan includes, but is not limited to:</p> <ul style="list-style-type: none"> <li>– Anticoagulation therapy for management of atrial fibrillation, as applicable.</li> <li>– Anti-thrombotic therapy for deep vein thrombosis prevention.</li> <li>– Modification of stroke risk factors, e.g., smoking cessation, control of hypertension, diabetes, atrial fibrillation, and Hyperlipidemia, as appropriate.</li> <li>– Referral for Physical Rehabilitation (as applicable).</li> </ul>	<p>Patients must be evaluated for return to the pre-hospital environment, but also must be offered a range of realistic options to consider for post-hospital care.</p> <p>Hospital staff should incorporate information provided by the patient and/or caregivers to implement the process.</p> <p>The facility is responsible for making appointments with the appropriate provider for follow-up clinical visits and tests after hospitalization. These appointments must be communicated, in writing, to the patient / caregiver at the time of discharge.</p> <p>Patient / caregiver understanding of the discharge instructions must be assessed and documented in the patient record.</p> <p><b>ASSESSMENT</b></p> <p>Discharge assessment includes (but is not limited to):</p> <ul style="list-style-type: none"> <li>– Functional status</li> <li>– Cognitive decline</li> <li>– Depression and anxiety assessment</li> <li>– Social issues</li> </ul> <p><b>REFERRAL</b></p> <p>Internal / External referrals may include (but are not limited to):</p> <ul style="list-style-type: none"> <li>– Outpatient therapy / services such as speech therapy, occupational therapy, physical therapy</li> <li>– Home care services</li> <li>– Acute rehabilitation</li> </ul>	<p>speech, occupational, and respiratory therapists and dietitians, in addition to MD/DOs, nurses and social workers.</p> <p>Interview a sample of hospital staff that are involved in direct patient care. Ask the following questions:</p> <ul style="list-style-type: none"> <li>– How is discharge planning conducted at this hospital for the stroke program?</li> <li>– How is this communicated and integrated into a plan of care?</li> </ul> <p><b>DOCUMENT REVIEW &amp; CHART REVIEW</b></p> <p>Review the hospital's high-risk screening procedure. Verify:</p> <ul style="list-style-type: none"> <li>– The screening procedure identifies patients who need discharge planning evaluations. Does the process work?</li> </ul> <p>Review a select sample of discharge medical records. Verify the following are documented:</p> <ul style="list-style-type: none"> <li>– Assessment of self-care capacity</li> <li>– The patient and/or caregiver participated in the process</li> <li>– A list of discharge facilities was presented to the patient or individual acting on the patient's behalf. Was the choice of services limited? Was the patient inappropriately steered to a particular service?</li> <li>– Gather information about the patient's self-care capacity from the clinical record, direct clinical observation, and information obtained from the patient, caregiver, and staff involved in the care of the patient; judge appropriateness of</li> </ul>	

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
	<ul style="list-style-type: none"> <li>– Vocational rehabilitation</li> <li>– Community support groups and associations</li> <li>– Mental/behavioral health services</li> <li>– Long term care options</li> <li>– Hospice / end of life care options</li> <li>– Primary care provider for stroke care assessment and monitoring needs</li> </ul> <p><b>FOLLOW-UP</b></p> <p>It is not mandatory that the bedside RN make the follow-up patient phone calls. However, the individual assigned must be an RN with experience, knowledge and training to recognize potential medical issues.</p> <p>Follow-up protocols include follow-up process including phone call(s) and timeframes.</p>	<p>discharge disposition.</p> <ul style="list-style-type: none"> <li>– Is the patient who was admitted from their home or another setting given a full-range of realistic options for post-hospital continuation of care?</li> </ul> <p><b>INTERVIEW</b></p> <p>Interview patients who require post-hospital services to determine if they were provided with a list of providers that serve their geographic area.</p> <ul style="list-style-type: none"> <li>– Were they included in the discharge planning process?</li> <li>– Were they informed of their freedom to choose among the participating providers, and that the hospital will respect their preferences?</li> </ul>	
<p><b>EDUCATION</b></p> <p><u>02.03.02</u></p> <p>The Patient Care Protocols incorporate patient education through each phase of care. Modification of stroke risk factors is addressed in the patient’s individualized plan of care.</p> <ol style="list-style-type: none"> <li>1. Recognizing and managing clinical deterioration (including activation of emergency medical system)</li> <li>2. Recognizing and managing clinical deterioration (including activation of emergency medical system)</li> <li>3. Post-discharge instructions and follow-up appointments</li> </ol>	<p>Studies demonstrate greater compliance with weight loss and smoking cessation when these activities are “ordered” by a physician.</p> <p>Patient education materials relative to stroke are provided to the patient and documented in the medical record.</p> <p>For situations that inhibit adequate or appropriate patient education, documentation of reason(s) must be evident in the patient’s record.</p> <p>Education includes (but is not limited to):</p> <ol style="list-style-type: none"> <li>1. Recognizing and managing clinical deterioration (including activation of emergency medical system)</li> </ol>	<p><b>DOCUMENT REVIEW</b></p> <p>Review Patient Care Protocols and medical records of acute stroke patients.</p> <p>Verify:</p> <ul style="list-style-type: none"> <li>– Patient Care Protocols incorporate patient education about stroke and modification of stroke risk factors.</li> <li>– The medical record reflects the provision of patient education relative to specific risk factors and modification strategies, as applicable.</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p>4. Medications prescribed at discharge and importance of adherence</p> <p>5. Risk factors for stroke and lifestyle modifications</p> <p>6. Warning signs and symptoms of stroke</p> <p>7. Community support groups</p>	<p>2. Post-discharge instructions and follow-up appointments</p> <p>3. Medications prescribed at discharge and importance of adherence</p> <p>4. Risk factors for stroke and lifestyle modifications</p> <p>5. Warning signs and symptoms of stroke</p> <p>6. Community support groups</p>		<input type="checkbox"/> C <input type="checkbox"/> NC    Comment:
<p><b>SIGNIFICANT OTHER</b></p> <p><u>02.03.03</u></p> <p>Significant Other involvement in care and post-discharge options.</p> <p>The physicians and the multidisciplinary clinical personnel involved in the initial patient assessment have informed the patient's significant other about diagnosis and care.</p> <p>Education is provided to the significant other related to:</p> <ol style="list-style-type: none"> <li>1. Recognizing and managing clinical deterioration (including activation of emergency medical system)</li> <li>2. Post-discharge instructions and follow-up appointments</li> <li>3. Medications prescribed at discharge and importance of adherence</li> <li>4. Risk factors for stroke and lifestyle modifications</li> <li>5. Warning signs and symptoms of stroke</li> <li>6. Community support groups</li> </ol>	<p><b>INVOLVEMENT</b></p> <p>The significant other has been involved in patient care decisions throughout the admission process.</p> <p><b>ASSESSMENT</b></p> <p>The significant other is assessed to seek feedback on their readiness for the patient to be discharged and their ability to provide the required care.</p> <p><b>EDUCATION</b></p> <p>Education is provided to the significant other related to:</p> <ol style="list-style-type: none"> <li>1. Recognizing and managing clinical deterioration (including activation of emergency medical system)</li> <li>2. Post-discharge instructions and follow-up appointments</li> <li>3. Medications prescribed at discharge and importance of adherence</li> <li>4. Risk factors for stroke and lifestyle modifications</li> <li>5. Warning signs and symptoms of stroke</li> <li>6. Community support groups</li> </ol>	<p><b>DOCUMENT REVIEW</b></p> <p>Review five open and closed charts. Verify that involvement of care with significant other is documented.</p> <p><b>INTERVIEW AND OBSERVATION</b></p> <p>Determine that a process is in place for significant other education / support. Check to see that a step-by-step approach is in place from admission to discharge, and the staff can articulate that process.</p>	<input type="checkbox"/> C <input type="checkbox"/> NC    Comment:

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<b>Safe Care Systems</b>			
<p><b>EMERGENCY MEDICAL SERVICES (EMS)</b></p> <p><u>02.04.01</u></p> <p>The Emergency Medical Service plays a key role with the timely recognition, treatment, transfer, and outcomes of patients with acute stroke. The primary stroke center has established a strong relationship with the community Emergency Medical Services (EMS).</p> <p>A document of cooperation between the primary stroke center and the EMS is in place. This document addresses, but is not limited to:</p> <ul style="list-style-type: none"> <li>– A plan for ensuring a minimum of two (2) educational activities is provided each year relative to the management of stroke patients</li> <li>– The written plan for transporting and receiving patients with stroke symptoms via the EMS system (refer to applicable state limitations on notification in transit)</li> </ul>	<p>Studies recognize the substantial role the emergency medical services play in providing the first line of treatment in the rapid response stroke protocol for patients presenting with symptoms of acute stroke. The EMS, through rapid transport of these patients to the ED within the vital 3-hour window of treatment, increases treatment options available to stroke patients.</p> <p>The EMS not only reduces pre-hospital delays, but studies have also found that stroke patients arriving in the Emergency Department by ambulance have decreased delays in the time to obtain head CT or MRI testing and evaluation by a neurologist.</p> <p>Certain communities have made the decision to transport patients with acute stroke symptoms to only those facilities with designated Primary Stroke Centers. While certain communities consider stroke patients as dispatch priorities, other communities disallow this practice. Refer to state, regional, and local laws and regulations for information relative to these triaging practices.</p> <p>Agreements which address the following:</p> <ul style="list-style-type: none"> <li>– Establishing a priority system for the rapid dispatch of EMS ambulances and crew in response to patients reporting symptoms of acute stroke</li> <li>– Established lines of communication with the primary stroke center to activate the emergency department / stroke team of incoming patients as well as inpatients with symptoms of</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Verify the “Document of Cooperation” is in place and addresses:</p> <ol style="list-style-type: none"> <li>1. The plan for transporting and receiving patients with stroke symptoms via the EMS system.</li> <li>2. A plan for ensuring a minimum of two (2) educational activities is provided each year relative to the management of stroke patients.</li> <li>3. Training documents reflect the required topics have been provided annually.</li> <li>4. The facility may provide minutes of meetings with outside entities that address the required elements.</li> </ol>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
	<p>stroke</p> <ul style="list-style-type: none"> <li>- Circumstances in which the primary stroke center would be on diversion and not able to accept patients</li> <li>- Establishing clinical guidelines relative to evaluation, identification, and initial EMS management of patients presenting with symptoms of acute stroke</li> <li>- Interagency collaboration with development and review of policies/procedures and education</li> </ul> <p>Training shall be offered at least twice a year, approximately six months apart. This EMS training may be cosponsored with other healthcare facilities in the community. All required topics are to be taught at least once a year. Training should also address:</p> <ul style="list-style-type: none"> <li>- Reliable identification of stroke patients using a standardized assessment tool.</li> <li>- Contraindications for tPA therapy</li> <li>- Conditions that mimic acute stroke symptoms, such as patients presenting with: <ul style="list-style-type: none"> <li>a) Hypoglycemia,</li> <li>b) Alcohol and drug intoxication,</li> <li>c) Postictal hemiparesis, and</li> <li>d) Other non-stroke causes of acute neurological deficits</li> </ul> </li> </ul>		

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p><b>EMS PROTOCOLS</b></p> <p><u>02.04.02</u></p> <p>Emergency Medical Service (EMS) protocols include, but are not limited to:</p> <ul style="list-style-type: none"> <li>- Establishing a priority system for the rapid dispatch of EMS ambulances and crew in response to patients reporting symptoms of acute stroke</li> <li>- Establishing lines of communication with the Emergency Department to activate the Acute Stroke Team (refer to applicable state limitations on notification in transit)</li> <li>- Establishing clinical guidelines relative to evaluation, identification, and initial EMS management of patients presenting with symptoms of acute stroke</li> </ul> <p>The service, in collaboration with the community Emergency Medical Service, develops patient care protocols. Patient care protocols are reviewed at least annually and updated as necessary.</p>	<p>Patient care protocols are developed based upon nationally published guidelines or developed collaboratively between the Primary Stroke Center and the Emergency Medical Service.</p> <p>Collaboratively, the Primary Stroke center and EMS adopt or develop a pre-hospital stroke assessment form such as the NIH Stroke Scale, the Los Angeles Pre-hospital Stroke Screen (LAPSS), or the Cincinnati Pre-hospital Stroke Scale.</p> <p>Ideally (pending on state), the ED is notified from the field of the imminent arrival of an acute stroke patient; thus allowing the Acute Stroke Team to assemble and to reserve the CT scan.</p> <p>Studies have identified two factors that impact pre-hospital delay.</p> <ol style="list-style-type: none"> <li>1. Patient transport to the ED by ambulance. It was determined that this group had almost half the pre-hospital delay and three-fourths the delay to CT scan as compared to patients who arrived by other means. This study also associated awakening with symptoms as a significant reason for not presenting to the ED.</li> <li>2. Delay in taking action. Studies show that patients who wait 90 minutes from onset of symptoms before calling the EMS might not arrive to the ED in time to be eligible for thrombolytic therapy.</li> </ol>	<p><b>DOCUMENT REVIEW</b></p> <p>Verify:</p> <ul style="list-style-type: none"> <li>- The required EMS protocols are in place.</li> <li>- The protocols have been reviewed by the EMS and hospital within the past year</li> <li>- The facility may provide minutes of meetings with outside entities that address the required elements</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p><b>CLINICAL DETERIORATION</b></p> <p><u>02.04.03</u></p> <p>The service establishes a system for recognizing and managing clinical deterioration in patients who present with acute stroke symptoms.</p> <p>Deaths or adverse events for a patient without a do not resuscitate order are reviewed by the acute stroke leaders to identify the effectiveness / any failures in the system.</p>	<p>Patients whose clinical symptoms are deteriorating are identified and timely action is taken to escalate care needs.</p> <p>A written document provides guidance to staff on how to recognize and manage clinical deterioration in acute stroke patients. This document includes (but is not limited to):</p> <ul style="list-style-type: none"> <li>- Signs and symptoms of acute stroke and elements of deterioration</li> <li>- Rapid assessment procedures</li> <li>- Physiologic parameters which include heart rate/rhythm, blood pressure, oxymetry and temperature</li> <li>- Monitoring process: who monitors, what is monitored; how it is monitored; frequency and type of monitoring and process for recording and responding to changes accordingly</li> <li>- Clinical communication with Emergency Medical Service and hospital emergency department</li> <li>- Initiation protocol for stroke code team</li> <li>- Education of the clinical workforce</li> </ul> <p><b>NOTE:</b> This standard is in reference to those patients who present to the facility with symptoms of acute stroke and those patients for whom the 'Acute Stroke Response Team' is called to assess and intervene.</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review the policies / protocols.</p> <p>Verify the processes supporting this expectation are in place:</p> <ul style="list-style-type: none"> <li>- Signs and symptoms of acute stroke and elements of deterioration</li> <li>- Rapid assessment procedures</li> <li>- Physiologic parameters which include heart rate/rhythm, blood pressure, oxymetry and temperature</li> <li>- Monitoring process: who monitors, what is monitored; how it is monitored; frequency and type of monitoring and process for recording and responding to changes accordingly</li> <li>- Clinical communication with Emergency Medical Service and hospital emergency department</li> <li>- Initiation protocol for acute stroke response team</li> <li>- Education of the clinical workforce</li> <li>- Deaths and adverse events are reviewed</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p><b>ACUTE STROKE RESPONSE TEAM</b></p> <p><u>02.04.04</u></p> <p>The program has a designated an Acute Stroke Response Team that is available 24 hours a day, every day. The Acute Stroke Response Team responds to patients with symptoms of acute stroke in the Emergency Department as well as other areas in the facility.</p> <p>Members of the Acute Stroke Response Team may have other duties, concurrently, while assigned to the Acute Stroke Team; these duties may be unrelated to the stroke center.</p> <p>Each member undertakes eight (8) hours annually of education specifically related to diagnosis / assessment and management of acute stroke / cerebrovascular disease (may be CME / CEU /policy / competency driven).</p>	<p>The Acute Stroke Response Team is a multidisciplinary group of healthcare providers. The Acute Stroke Response Team should include representatives from the Emergency Department. Some facilities may opt to use Emergency Department (ED) staff as the Acute Stroke Response Team for patients presenting to the ED and/or Rapid Response Teams for inpatients.</p> <p>Team members may serve on an alternating basis, depending upon resources available, staffing levels, and patient needs.</p> <p>Minimally, the Acute Stroke Response Team includes:</p> <ol style="list-style-type: none"> <li>1. A qualified physician, either a DO or MD who is trained in the diagnosis and treatment of all types of acute stroke; and</li> <li>2. A second healthcare professional who is either: <ul style="list-style-type: none"> <li>- Another qualified physician</li> <li>- A qualified Registered Nurse</li> <li>- A qualified Nurse Practitioner</li> <li>- A qualified Physician's Assistant</li> </ul> </li> </ol> <p>The role and responsibilities of the Acute Stroke Response Team are prepared in a written document. This document describes:</p> <ul style="list-style-type: none"> <li>- On-call and staffing requirements</li> <li>- Response times</li> <li>- Patient care protocols</li> <li>- Documentation requirements</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Review the daily schedules for the Acute Stroke Response Team.</p> <p>Review the roles and responsibilities documents.</p> <p>Verify the Acute Stroke Response Team schedules include:</p> <p>At least one physician and one other qualified healthcare professional, 24 hours a day, every day.</p> <p><b>FILE REVIEW</b></p> <p>Examine personnel files of the members of the Acute Stroke Response Team.</p> <p>Verify:</p> <ul style="list-style-type: none"> <li>- Acute Stroke Response Team membership</li> <li>- Appointment date</li> <li>- Competency</li> <li>- Each member has evidence of eight (8) hours annually of education specifically related to diagnosis / assessment and management of acute stroke / cerebrovascular disease (may be CME / CEU / policy / competency driven).</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
	<p>Each member undertakes eight (8) hours annually of education specifically related to diagnosis / assessment and management of acute stroke / cerebrovascular disease (may be CME / CEU / policy / competency driven).</p>		
<p><b>ACUTE STROKE RESPONSE TEAM ACTIVATION</b></p> <p><u>02.04.05</u></p> <p>The facility has a system for rapidly notifying members of the Acute Stroke Response Team to evaluate patients with symptoms of an acute stroke.</p>	<p>Pre-hospital delays can be minimized when the EMS personnel screen patients from the field and notify the Emergency Department of patients with signs of acute stroke.</p> <p>The facility has a system in place for the rapid notification of the Acute Stroke Response Team of incoming patients as well as inpatients with symptoms of stroke.</p> <p>A policy is in place that outlines the procedure for the timely notification of the team including:</p> <ol style="list-style-type: none"> <li>1. Role responsibilities</li> <li>2. Activation of the alert</li> <li>3. Initiation of the Acute Stroke Team Response Log</li> </ol> <p>The method used for team notification depends upon the size and resources of the facility. Some facilities have had success using:</p> <ul style="list-style-type: none"> <li>– Pagers that are programmed to simultaneously alert all members of the team.</li> <li>– An overhead paging system to alert the team as well as all hospital personnel of the pending arrival of an acute stroke patient.</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Review the Primary Stroke Center policies / protocols to verify these expectations are in place.</p>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p><b>ACUTE STROKE RESPONSE TEAM RESPONSE</b></p> <p><u>02.04.06</u></p> <p>A member of the Acute Stroke Response Team is expected to arrive at the acute stroke patient's bedside within 15 minutes of notification to evaluate and manage the care.</p> <p>Monthly data are tallied, aggregated, and trended. QAPI data are submitted to the quality improvement subcommittee of the Stroke Center measuring:</p> <p>"A member of the Acute Stroke Response Team is at the patient bedside within 15 minutes of being called."</p>	<p>As ischemic stroke patients must receive thrombolytic therapy within three (3) hours of onset of symptoms, the Acute Stroke Response Team members must assemble as quickly as possible to evaluate the patient and initiate treatment.</p> <p>The Acute Stroke Response Team arrival time is documented in the Response Log.</p> <p>For patients arriving in the Emergency Department, triage time will be used as response time.</p> <p>The Emergency department must be staffed with personnel who are well trained in the diagnosis and treatment of all types of acute stroke and have a clear delineation of their roles and those of other medical staff on the acute stroke team. The department should have written protocols for stroke triage, treatment, and frequent assessment of the patients' vital signs and neurological status.</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review policies/protocols. Verify:</p> <ul style="list-style-type: none"> <li>- Processes supporting this expectation are in place.</li> <li>- QAPI data is submitted.</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>
<p><b>ACUTE STROKE RESPONSE TEAM LOG</b></p> <p><u>02.04.07</u></p> <p>The Stroke Center maintains a Response Log for documenting each patient presenting with symptoms of acute stroke.</p> <p>The Stroke Center has a process for consistently recording the following vital information into the Response Log:</p> <ol style="list-style-type: none"> <li>1. Time of symptom onset</li> <li>2. Time of the initial call from EMS (or other sources) of imminent arrival of a patient with acute stroke</li> </ol>	<p>Staff has received training relative to the Response Log documentation requirements.</p> <p>The Response Log data are submitted to the quality improvement subcommittee of the Acute Stroke Response Team for analysis and trending. These data will be used to determine opportunities for improvement for reducing in-hospital delays and improving patient outcomes.</p> <p>The ED time frames may be used as long as the required elements are captured.</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review policies / protocols. Verify:</p> <ol style="list-style-type: none"> <li>1. A Response Log is in place.</li> <li>2. The Response Log contains all required elements.</li> <li>3. Staff has received training relative to Response Log documentation requirements.</li> </ol>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p>symptoms (if applicable to state)</p> <p>3. Time of the first Acute Stroke Response Team member arrival at the bedside (for in-patient strokes)</p> <p>4. Time of activating the Acute Stroke Response Team alert (or time of triage if patient presents to the Emergency Department (ED))</p> <p>5. Patient name or identifier</p> <p>6. Diagnosis</p> <p>7. Treatments</p> <p>8. Outcomes</p>	<p><b>Definition:</b> “Time of Symptom Onset”</p> <p>Time patient was last known to be without symptoms. 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.</p> <p><b>NOTE:</b> This standard is in reference to those patients who present to the facility with symptoms of acute stroke and those patients for whom the ‘Acute Stroke Response Team’ is called to assess and intervene.</p>		
<b>SUPPORT</b>			
<b>Human Resources</b>			
<p><b>STAFFING</b></p> <p><u>03.00.01</u></p> <p>Hospital and service specific policies and procedures identify basic / core staffing for acute stroke patient care needs and reflect mechanisms for altering these levels for changes in the volume, complexity or intensity of services.</p> <p>The organization and staffing of the stroke program are appropriate to the scope of services offered.</p>	<p>The provision of high quality and efficient care is highly dependent upon the degree of commitment of the facility necessary to build the infrastructure.</p> <p>When considering a Primary Stroke Center, facilities should assess current capabilities for providing acute stroke care services. Additionally, it is recommended that facilities perform an assessment of the community to determine the capabilities available in other local and regional facilities.</p> <p>A supportive infrastructure is demonstrated through:</p> <ul style="list-style-type: none"> <li>– The organizational chart of the facility in which the reporting mechanisms for the Primary Stroke Center are indicated</li> <li>– The scope of services provided by the Primary Stroke Center program is described in the Provision of Care document of the facility</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Verify the following are in place:</p> <ul style="list-style-type: none"> <li>– The Primary Stroke Center’s scope of services is included with the facility’s Provision of Care document</li> <li>– The organization has staffing patterns in place, which define the numbers of qualified staff required to provide patient care</li> <li>– Review assignment mechanisms and interview sufficient numbers of managers and staff to determine that patient care is not jeopardized</li> </ul> <p><b>INTERVIEW</b></p> <p>During the interview, facility leaders provide rationale for establishing a Primary Stroke Center including community needs and available stroke care services.</p> <p>Interview managers and selected staff</p>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
	<ul style="list-style-type: none"> <li>- An adequate number of qualified staff must be available to provide rapid diagnosis and treatment of acute stroke patients</li> </ul> <p>Refer to staffing plan requirements in the following standards:</p> <ul style="list-style-type: none"> <li>- Emergency Department</li> <li>- Stroke / Intensive Care Units</li> </ul>	<p>to determine if policies are implemented and that there is sufficient numbers of qualified staff to provide the care, treatment and services required.</p>	
<p><b>ORIENTATION &amp; EDUCATION</b></p> <p><u>03.00.02</u></p> <p>Education programs are held minimally twice per year and competency on a recognized neurological assessment tool are performed annually.</p> <p>Education needs are identified and incorporated into an annual training calendar.</p> <p>The annual training calendar dates are determined by the service.</p> <p>Education is developed / delivered by an identified acute stroke leader, who is responsible for undertaking eight (8) hours of continued education credits annually specifically related to acute stroke / cerebrovascular disease and diagnosis / assessment and management.</p> <p>Education may include in-house training, competencies, on-line learning, seminars, CEUs.</p> <p>Education must be specifically related to diagnosis / assessment and management of acute stroke / cerebrovascular disease (may be policy / competency driven).</p> <p><b>NOTE:</b> Stroke education credit is NOT</p>	<p>The professional staff, including physicians, fellows, and registered nurses receive training in order to remain current with advancements in the treatment of acute stroke.</p> <p>The initial stabilization of acute stroke patients includes continuous cardiac and pulse oximeter monitoring, repeated vital signs, and IV access.</p> <p>Care of the acute stroke patient includes prevention of secondary complications such as aspiration, airway obstruction, seizures, hypertension, deep vein thrombosis, and cardiac arrhythmias. The occurrence of fever is associated with poor patient outcomes.</p> <p>Training shall be scheduled at least twice a year, approximately six months apart.</p> <p>RNs working in departments that care for stroke patients receive training in order to remain current with advancements in the treatment of acute stroke.</p> <ul style="list-style-type: none"> <li>- Nurses who work in departments that care for stroke patients e.g. <b>stroke unit, ICU</b> attend minimum of <b>six (6)</b></li> <li>- <b>Emergency department</b> nurses</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Review training records and training program. Verify:</p> <ul style="list-style-type: none"> <li>- The service has provided at least two training programs each year for nursing staff who work with acute stroke patients (and rapid response team if applicable)</li> <li>- Training needs have been identified by the service and incorporated into the annual training calendar</li> <li>- Training and competencies were developed / delivered by a clinical leader who has maintained eight (8) hours of continued education credits annually specifically related to acute stroke / cerebrovascular disease diagnosis / assessment and management.</li> </ul> <p><b>FILE REVIEW</b></p> <p>Review personnel records of the healthcare professionals; include staff that works all shifts and weekends to ensure staff on all shifts has received the required training.</p> <p>Verify:</p> <ul style="list-style-type: none"> <li>- Nursing professionals on all shifts in acute stroke patient care areas have</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<p>given for ACLS training.</p>	<p>attend a minimum of <b>two (2)</b> hours</p> <ul style="list-style-type: none"> <li>– <b>Acute Stroke Response Team</b> members <b>eight (8)</b> hours</li> </ul>	<p>received the required training</p> <ul style="list-style-type: none"> <li>– Nursing professionals on all shifts in the emergency department have received the required training</li> <li>– Rapid response team personnel on all shifts have received the required education / training</li> </ul>	
<p><b>NON-PHYSICIAN PROFESSIONAL STAFF</b></p> <p><u>03.00.03</u></p> <p>The organization and staffing of the stroke program are appropriate to the scope of services offered.</p> <p>The non-physician professional staff members (contracted or employed) receive two (2) hours of education specifically related to diagnosis / assessment and management of acute stroke / cerebrovascular disease (may be policy / competency driven).</p> <p>Non-physician professional service providers may include:</p> <ul style="list-style-type: none"> <li>• Radiology</li> <li>• Pharmacology</li> <li>• Rehabilitation</li> <li>• Other</li> </ul>	<p>To remain competent with the rapid changes in technology and advances in cerebrovascular medicine, these professional staff must annually maintain education relative to the management of acute stroke / cerebrovascular disease.</p> <p>The non-physician professional staff is knowledgeable of the specialty practices and techniques to participate in the team.</p> <p>All non-physician professionals participating in assessment, care and treatment of acute stroke patients, require:</p> <ul style="list-style-type: none"> <li>– Orientation to the hospital and its policies around management of acute stroke patients</li> <li>– Two (2) hours of education per calendar year specifically related to diagnosis / assessment and management of acute stroke / cerebrovascular disease (may be policy / competency driven).</li> </ul> <p>Non-Physician Professionals include:</p> <p><b>RADIOLOGY</b></p> <p>Radiology imaging staff available 24 hours every day of the year.</p> <ul style="list-style-type: none"> <li>– One or more magnetic resonance</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Review a sample of credentialed files for specialty staff to determine compliance with:</p> <ul style="list-style-type: none"> <li>– Licensure is current</li> <li>– Clinician is credentialed</li> <li>– Qualifications are relevant</li> <li>– Orientation completed</li> <li>– Maintenance of two (2) hours of education specifically related to diagnosis / assessment and management of acute stroke / cerebrovascular disease (may be policy / competency driven).</li> </ul> <p>Review the roster to ensure availability and accessibility according to the requirement.</p>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
	<p>imaging technologists able to assist with cerebral angiogram</p> <ul style="list-style-type: none"> <li>– One or more radiology technologists able to assist with cerebral angiogram</li> </ul> <p><b>PHARMACOLOGY</b></p> <p>Contracted or employed pharmacist accessible 24 hours a day, every day of the year.</p> <ul style="list-style-type: none"> <li>– With experience regarding neurology and stroke care</li> </ul> <p><b>REHABILITATION</b></p> <p>Contracted or employed professionals accessible based on clinical need:</p> <ul style="list-style-type: none"> <li>– Physical therapist</li> <li>– Occupational therapist</li> <li>– Speech therapist</li> <li>– Case Managers (may be employed nurses)</li> <li>– Social workers</li> <li>– Psychologists</li> </ul>		
<b>Integrated QI/RM System</b>			
<p><b>QUALITY AND PERFORMANCE IMPROVEMENT</b></p> <p><u>03.01.01</u></p> <p>The primary stroke center has a Quality Assessment Performance Improvement subcommittee. The primary stroke center assigns the subcommittee leader and membership.</p> <p>The primary stroke center QAPI subcommittee:</p>	<p>The scope and functions of the primary stroke center QAPI subcommittee defined in writing and integrated into the hospital QAPI Plan.</p> <p>The primary stroke center analyzes and trends data allowing the primary stroke center and facility leadership to identify obstacles and establish priorities for improvement.</p> <p>A process is in place for the ongoing measurement of performance, including compliance with the Patient Care</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Verify that the primary stroke center:</p> <ul style="list-style-type: none"> <li>– Has a current QAPI Plan</li> <li>– Establishes internal and external benchmarks for comparison</li> <li>– Selects at least two (2) performance improvement activities each year that focus efforts upon the improvement of patient care, improvement of outcomes, and/or</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
<ul style="list-style-type: none"> <li>– Meets at least quarterly to review data relative to the primary stroke center</li> <li>– Establishes internal and external benchmarks</li> <li>– Uses continuous quality improvement techniques to explore opportunities for improvement</li> <li>– Selects two (2) patient care performance improvement activities annually</li> <li>– Prepares minutes reflecting the review, analysis, trending, and actions of the subcommittee</li> </ul> <p>The subcommittee submits reports to the hospital QAPI Committee.</p>	<p>Protocols. Each component of care provided should be reviewed for the purpose of establishing best practices, improving patient care, and reducing delays.</p>	<p>minimizing delays in care</p> <ul style="list-style-type: none"> <li>– The primary stroke center submits data to the hospital QAPI Committee</li> </ul>	
<p><b>DATA COLLECTION</b></p> <p><u>03.01.02</u></p> <p>There is a clinical data management process in place.</p> <p>The primary stroke center demonstrates that care is provided for patients that meet the criteria for stroke care.</p>	<p>A clinical data management process is available (this may be a chart / policy / procedure) which outlines the following elements:</p> <ul style="list-style-type: none"> <li>– Type of data collected</li> <li>– How each type of data is collected</li> <li>– How each type of data is analyzed</li> <li>– How each type of data is reported</li> <li>– How the data is then utilized to improve patient care</li> </ul>	<p><b>DOCUMENT REVIEW</b></p> <p>Review QAPI data.</p> <p>Verify:</p> <ul style="list-style-type: none"> <li>– A process is in place to measure all required data</li> <li>– A process is in place to measure compliance with Patient Care Protocols</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>
<p><b>CLINICAL MEASURES</b></p> <p><u>03.01.03</u></p> <p>The primary stroke center collects and submits performance measures and indicators detailed in the following chapter.</p> <p>Clinical Measures and indicators are</p>	<p>Clinical measures and indicators are identified, collected and submitted at defined intervals.</p> <p>Performance on measures and indicators are tracked and reviewed by the quality improvement sub-committee.</p> <p>The quality improvement subcommittee of the primary stroke center must</p>	<p><b>DOCUMENT REVIEW</b></p> <p>Review Clinical Measure data.</p> <p>Verify:</p> <ul style="list-style-type: none"> <li>– Data is collected</li> <li>– Data falls within requirements</li> <li>– Data outside the requirement is</li> </ul>	<p><input type="checkbox"/> C    <input type="checkbox"/> NC    Comment:</p>

STANDARD / ELEMENT	CRITERIA/EXPLANATION	SCORING PROCEDURE	Score
submitted: 1st quarter-April 30 2nd quarter- July 31 3rd quarter-September 30 4th quarter-January 31	monitor compliance with clinical measure requirements for the purpose of maintaining best practices, to improve patient care, reduce delays, and to seek opportunities for improvement.	logged on to the QAPI and improvement plans are in plans are monitored through the respective committee	
<b>Information Management</b>			
<b>REGISTER</b> <u>03.02.01</u> A register of all patients admitted for treatment of acute stroke must be maintained.	Register of all patients admitted for treatment of acute stroke. Register must include (but not limited to) the following information: <ul style="list-style-type: none"> <li>- Patient ID</li> <li>- Time of onset of symptom</li> <li>- Method of assessment</li> <li>- Response time</li> <li>- Treatments used</li> <li>- Patient response to treatment</li> <li>- Treatments administered</li> <li>- Outcomes including complications</li> </ul>	<b>DOCUMENT REVIEW</b> Review Stroke Register. Verify: <ul style="list-style-type: none"> <li>- Applicable data is collected</li> </ul>	<input type="checkbox"/> C <input type="checkbox"/> NC    Comment:
<b>MEDICAL RECORDS</b> <u>03.02.02</u> Medical records comply with the following: <ul style="list-style-type: none"> <li>- Record Security &amp; Retention</li> <li>- Coding &amp; Indexing</li> <li>- Content of the Record</li> <li>- Legible &amp; Complete</li> <li>- Dating and Timing of Orders</li> </ul>	The term "medical records" includes at least written documents, computerized electronic information, radiology film and scans, laboratory reports and pathology slides, videos, audio recordings, and other forms of information regarding the condition of a patient.  Hospital records are retained and securely stored with appropriate coding and indexing.  Information is accurate, legible and completed with the correct date and timing of orders.	<b>DOCUMENT REVIEW</b>  Verify that procedures ensure the integrity of authentication and protect the security of patient records.  Verify that medical records are stored and maintained in locations where the records are secure, that protects them from damage, flood, fire, etc., and limits access to only authorized individuals.  Verify that records are accurate, completed promptly, easily retrieved and readily accessible, as needed, in all locations where medical records are maintained.	<input type="checkbox"/> C <input type="checkbox"/> NC    Comment:



# Stroke Certification

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Clinical Measures and Performance Indicators v2.3

A Program of the American Osteopathic Association  
142 East Ontario Street Chicago, IL 60611-2864



## **CLINICAL MEASURES AND PERFORMANCE INDICATORS**

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**Data Submission:** this includes specific data requirements for each performance measure that is required to be submitted to HFAP through [repots@hfap.org](mailto:repots@hfap.org), in addition to:

- CMS via QualityNet.org - failure to do so may affect future reimbursement.
- AHA Get with the Guidelines (GWTG) Performance Measures or Paul Coverdell Registry (PCR) (depending on State). Although submission is not mandated, it is strongly recommended. Such registries provide invaluable support, access to information, networking and benchmarking opportunities. Hospitals must indicate to CMS whether or not they participate in a stroke registry.

### **Data Requirements:**

Stroke Ready and Primary Stroke Centers must submit required data. Additional data is optional.

Comprehensive Stroke Centers: Must submit required data, in addition to one (1) optional\* (page 4) measure.

**Data Validation:** At least six (6) records a quarter are to be validated. Sampling may be random, as per GWTG / PCR or calculated the following way:

1. Total number stroke patients / six records per month = sample interval number. E.g. 80/6=13.
2. Therefore, every thirteenth medical record is included in the validation sample unit you reach the requirement of 6 abstractions.
3. Select a starting point and pull records for validation.
4. Second abstractor to re-collect the original data.
5. Compare the original abstracted data with the re-collected data.
6. Calculate accuracy: Divide number of elements the same with total number of data elements and multiply by 100. Hospitals should aim for an 85% benchmark.
7. Corrective action is to be implemented for data that did not match.
8. For sample accuracy following corrective action, a new sample is to be re-abstracted and validated.

**Data Collection Tool:** this tool is being provided to HFAP Stroke Centers to assist in their data collection activities. The use of this tool is not mandatory.

**Data Submission Tool:** this tool is being provided to HFAP certified Stroke Centers to submit their stroke data. The intent is to provide consistency in the tracking and trending of stroke data. The required quarterly dates for submission are:

**1<sup>st</sup> quarter - April 30      2<sup>nd</sup> quarter - July 31      3<sup>rd</sup> quarter - September 30      4<sup>th</sup> quarter - January 31**

### **Transferred Patients:**

Hospitals that receive transferred patients may include them in measures with a rationale as to why threshold was not met is to be documented.

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

HFAP ID	Performance Measures and Indicators	Threshold	Stroke Ready	Primary	Comprehensive
SM-1	Stroke Team Arrival	85%	Required	Required	Required
SM-2	Laboratory Studies	85%	Required	Required	Required
SM-3	Neuroimaging Studies	85%	Required	Required	Required
SM-4	Neurosurgical Services	85%	Required	Required	Required
SM-5	Thrombolytic Therapy 0-3 hr	85%	Required	Required	Required
SM-6	Antithrombotic Therapy By End of Hospital Day 2	85%	Required	Required	Required
SM-7	Discharged on Antithrombotic Therapy	85%	Required	Required	Required
SM-8	Anticoagulation Therapy for Atrial Fibrillation/Flutter	85%	Required	Required	Required
SM-9	Venous Thromboembolism (VTE) Prophylaxis	85%	Required	Required	Required
SM-10	Discharged on Statin Medication	85%	Required	Required	Required
SM-11	Stroke Education	85%	Required	Required	Required
SM-12	Dysphagia Screening	85%	Optional	Required	Required
SM-13	Assessed for Rehabilitation	85%	Required	Required	Required
SM-14	Door-to-Needle Time	85%	Required	Required	Required
SM-15	NIHSS scores for Ischemic Stroke or TIA	85%	Optional	Optional	Required
SM-16	Initial Severity Measures for SAH, ICH & AVM	85%	Optional	Optional	Required
SM-17	Clipping/coiling w/in 48hrs	85%	Optional	Optional	Required
SM-18	Nimodipine Treatment w/in 24hrs to <21days	85%	Optional	Optional	Optional*
SM-19	INR Reversal with Procoagulant Preparation	85%	Optional	Optional	Optional*
SM-20	Diagnostic Neuroangiography within 24 hrs	85%	Optional	Optional	Optional*
SM-21	Discharge Physical Rehabilitation Referral	85%	Optional	Optional	Optional*

Optional\* the Comprehensive Stroke Center must select at least one optional measure and submit with required data.

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

SM-1	Stroke Team Arrival			
Measure Type	Evaluation	Applicable to: <input checked="" type="checkbox"/> Stroke Ready Centers Required (20mins) <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required		
<b>Background</b>	Arrival within 15 minutes / All patients exhibiting or presenting with clinical stroke symptoms.			
<b>Numerator Inclusion</b>	Patients 18 years of age and older, with the stroke team responding to bedside within 15 minutes of arrival in ED. Inpatients 18 years of age and older, where the stroke team responded to bedside within 15 minutes of onset of symptomology.			
<b>Denominator Inclusion</b>	Patients 18 years of age and older, presenting to the ED with clinical stroke symptoms. Inpatients 18 years of age and older, developing clinical stroke symptoms during hospitalization.			
<b>Exclusion</b>	Patients under the age of 18 Cancellation of stroke code			
<b>Data Source</b>	ED log chief complaints, ED recorded time of symptom on-set.  ED recorded time of patient presentation; ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients; neuro-imaging results.			
<b>Definitions</b>	<p><b>Arrival in ED:</b> <i>The time in which the patient, experiencing symptoms of acute stroke arrives in the Emergency Department.</i></p> <p><b>Symptoms of acute stroke:</b> <i>Sudden severe headache; sudden loss of vision in one or both eyes; sudden weakness in an arm, leg or face; sudden confusion, trouble speaking, or understanding; and sudden trouble walking, dizziness, or loss of balance or coordination.</i></p> <p><b>Response Time:</b> <i>The time between presentation of patient to ED with stroke symptoms and the arrival of the stroke team to the bedside; or the time between the inpatient onset of symptoms to the time of the stroke team arrival to the bedside.</i></p>			
<b>Threshold</b>	85%			

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

SM-2	Laboratory Studies
<b>Measure Type</b>	Evaluation <b>Applicable to:</b> <input checked="" type="checkbox"/> Stroke Ready Centers Required <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required
<b>Background</b>	Number of patients with labs turnaround time (TAT) within 45 minutes of arrival / All patients exhibiting or presenting with stroke symptoms.
<b>Numerator Inclusion</b>	<p>Patients 18 years of age and older, where lab testing was drawn and resulted within 45 minutes of arrival in ED.</p> <p>In-Patients 18 years of age and older, where lab testing was drawn and resulted within 45 minutes of onset of symptomology.</p> <p>Lab TATs include point of care glucose testing, INR and PT and PTT (if indicated).</p>
<b>Denominator Inclusion</b>	<p>Patients 18 years of age and older, presenting to the ED with clinical stroke symptoms.</p> <p>Inpatients 18 years of age and older, developing clinical stroke symptoms during hospitalization.</p>
<b>Exclusion</b>	<p>Patients under the age of 18.</p> <p>Laboratory results indicating cell lysis / other erroneous results.</p> <p>Patients who expired.</p> <p>Patients who left the emergency department against medical advice or discontinued care.</p>
<b>Data Source</b>	<p>ED log chief complaints, ED recorded time of symptom on-set.</p> <p>ED recorded time of patient presentation; ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients; neuro-imaging results.</p> <p>Laboratory orders; laboratory results.</p> <p>Documentation of contraindications to administration; documented time of initiation of tPA.</p>
<b>Definitions</b>	<b><i>TAT: Turnaround time of lab results should be within 45 minutes of arrival in ED or onset of symptomology on the in-patients.</i></b>
<b>Threshold</b>	85%

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

SM-3	Neuroimaging Studies
<b>Measure Type</b>	Evaluation <b>Applicable to:</b> <input checked="" type="checkbox"/> Stroke Ready Centers Required <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required
<b>Background</b>	Number of patients with neuro-imaging (CT scan or MRI) turnaround time (TAT) within 45 minutes of arrival / All patients exhibiting or presenting with stroke symptoms.
<b>Numerator Inclusion</b>	<p>Patients 18 years of age and older, where neuro-imaging (CT scan or MRI) was completed within 45 minutes of arrival in ED.</p> <p>Inpatients 18 years of age and older, where neuro-imaging (CT scan or MRI) was completed within 45 minutes of onset of symptomology.</p>
<b>Denominator Inclusion</b>	<p>Patients 18 years of age and older, presenting to the ED with clinical stroke symptoms.</p> <p>Inpatients 18 years of age and older, developing clinical stroke symptoms during hospitalization.</p>
<b>Exclusion</b>	<p>Patients under the age of 18.</p> <p>Patients who expired.</p> <p>Patients who left the emergency department against medical advice or discontinued care.</p>
<b>Data Source</b>	<p>Consultation orders/notes; time of transfer (if applicable).</p> <p>ED log chief complaints, ED recorded time of symptom on-set.</p> <p>ED recorded time of patient presentation; ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients; neuro-imaging results.</p> <p>Documentation of contraindications to administration; documented time of initiation of tPA.</p>
<b>Definitions</b>	<b><i>TAT: Turnaround time of neuro-imaging results should be within 45 minutes of arrival in ED or onset of symptomology on the in-patients.</i></b>
<b>Threshold</b>	85%

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

SM-4	Neurosurgical Services			
Measure Type	Evaluation	Applicable to: <input checked="" type="checkbox"/> Stroke Ready Centers Required <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required		
<b>Background</b>	Number of patients receiving neuro-surgical services (or transferred for neurosurgical service) within 2 hours of need / all patients diagnosed with hemorrhagic stroke.			
<b>Numerator Inclusion</b>	Patients 18 years of age and older identified on CT as experiencing a hemorrhagic stroke, Neuro-surgical services available within 2 hours of identified need for patients 18 years of age and older.			
<b>Denominator Inclusion</b>	Patients 18 years of age and older identified on CT as experiencing a hemorrhagic stroke.			
<b>Exclusion</b>	Patients with clinical diagnosis of ischemic stroke.			
<b>Data Source</b>	<p>Consultation orders/notes; time of transfer (if applicable); time to OR (if applicable).</p> <p>ED log chief complaints, ED recorded time of symptom on-set.</p> <p>ED recorded time of patient presentation; ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients; neuro-imaging results.</p> <p>Documentation of contraindications to administration; documented time of initiation of tPA.</p>			
<b>Definitions</b>	<p><b><i>Diagnosis of Hemorrhagic Stroke: Diagnosis should be made on CT scan or MRI, within 45 minutes of arrival to ED/onset of symptoms for inpatients.</i></b></p> <p><b><i>Identified Need: Patient will have a clinical diagnosis of hemorrhagic stroke confirmed by neuro-imaging.</i></b></p>			
<b>Threshold</b>	85%			

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

<b>SM-5</b>	<b>Thrombolytic Therapy (0-3 hours)</b>	<i>Other Identifiers: STK-4; CMS ID-91; NQF#-0437</i> Data Abstraction required for this measure as per CMS.
<b>Measure Type</b>	Clinical Process	<b>Applicable to:</b> <input checked="" type="checkbox"/> Stroke Ready Centers Required <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required
<b>Background</b>	Acute ischemic stroke patients who arrive at this hospital within 2 hours (120 minutes) of time last known well and for whom IV t-PA was initiated at this hospital within 3 hours of time last known well.	
<b>Numerator Inclusion</b>	Acute ischemic stroke patients who arrive at this hospital within 2 hours (120 minutes) of time last known well and for whom IV t-PA was initiated at this hospital within 3 hours of time last known well.	
<b>Denominator Inclusion</b>	All patients presenting with acute ischemic stroke symptomology, eligible to receive tPA.	
<b>Exclusion</b>	<p>Patients with length of stay greater than 120 days.</p> <p>Time Last Known Well to arrival in the emergency department greater than 2 hours.</p> <p>Patients transferred to another facility, or who left Against Medical Advice.</p> <p>Patients enrolled in clinical trials. Patients under the age of 18.</p> <p>Patients with a documented Reason for Not Initiating IV Thrombolytic.</p>	
<b>Data Source</b>	<p>ED log chief complaints, ED recorded time of symptom on-set.</p> <p>ED recorded time of patient presentation; ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients; neuro-imaging results.</p> <p>Documentation of contraindications to administration; documented time of initiation of tPA.</p>	
<b>Definitions</b>	<p><b>tPA: Tissue Plasminogen Activator</b></p> <p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>Evidence of intracranial hemorrhage on pretreatment CT.</li> <li>Clinical presentation suggestive of subarachnoid hemorrhage, even with normal CT.</li> <li>Active internal bleeding.</li> </ul> <p><b>Warnings</b></p> <ul style="list-style-type: none"> <li>Only minor or rapidly improving stroke symptoms.</li> </ul>	

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

### SM-5 tPA Administration (0-3 hours) continued...

#### Definitions

#### Known bleeding diathesis, including but not limited to:

- Platelet count < 100,000/mm.
- Patient has received heparin within 48 hours and has an elevated aPTT (greater than upper limit of normal for laboratory).
- Current use of oral anticoagulants (e.g., warfarin sodium) or recent use with an elevated Prothrombin time > 15 seconds.

#### Contraindications

Within 3 months any intracranial surgery, serious head trauma, or previous stroke.

On repeated measurements, systolic blood pressure greater than 185 mm Hg or diastolic blood pressure greater than 110 mm Hg at the time treatment is to begin, and patient requires aggressive treatment to reduce blood pressure to within these limits.

History of intracranial hemorrhage.

Known arteriovenous malformation, or aneurysm.

#### Warnings

Patient has had major surgery or serious trauma excluding head trauma in the previous 14 days.

History of gastrointestinal or urinary tract hemorrhage within 21 days.

Recent arterial puncture at a noncompressible site.

Recent lumbar puncture.

Abnormal blood glucose ( < 50 or > 400 mg/dL).

Post myocardial infarction pericarditis.

Patient was observed to have seizure at the same time the onset of stroke symptoms were observed.

#### Resources: Brain Attack Coalition, American College of Emergency Physician

**Note: Guidelines published by AHA/ASA (2013).** Reporting requirements to CMS indicate 0-3 hour window, it is acknowledged that the new guidelines recommend a 4.5 window; however this has not yet been endorsed by the FDA.

**Threshold** 85%

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

<b>SM-6</b>	<b>Antithrombotic Therapy By End of Hospital Day 2</b>	<i>Other Identifiers: STK-5; CMS ID-72; NQF#-0438</i> Data Abstraction required for this measure as per CMS.
<b>Measure Type</b>	Clinical Process	<b>Applicable to:</b> <input checked="" type="checkbox"/> Stroke Ready Centers Required <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required
<b>Background</b>	Ischemic stroke patients administered antithrombotic therapy by the end of hospital day two.	
<b>Numerator Inclusion</b>	<p>All eligible ischemic stroke patients who received the 1st dose of antithrombotic by the end of hospital day two (of inpatient admission).</p> <p>Count arrival date as hospital day one if antithrombotic therapy was administered by 11.59pm on hospital day two select yes for this data element.</p>	
<b>Denominator Inclusion</b>	All eligible patients presenting with acute ischemic stroke symptoms.	
<b>Exclusion</b>	<p>Length of stay less than two days or greater than 120 days.</p> <p>Patients transferred to another facility, or who left Against Medical Advice.</p> <p>Patients enrolled in clinical trials.</p> <p>Patients with a documented Reason for Not Administering Antithrombotic Therapy By End Of Hospital Day Two.</p> <p>Patients with IV OR IA Thrombolytic (t-PA) Therapy Administered at This Hospital or Within 24 Hours Prior to Arrival.</p> <p>Patients under the age of 18.</p>	
<b>Data Source</b>	<p>ED log chief complaints.</p> <p>ED recorded time of patient presentation; ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients; neuro-imaging results.</p> <p>Documentation of contraindications to administration (if applicable).</p> <p>Documented time of administration of 1st dose of antithrombotic.</p>	
<b>Definitions</b>	<p><b>Eligible Patients:</b> <i>Those patients age 18 &amp; older for which antithrombotic therapy is deemed to be indicated.</i></p> <p><b>Antithrombotic Therapy:</b> <i>Group of medications which would include anti-platelets and anticoagulants used in the treatment of ischemic stroke.</i></p>	
<b>Threshold</b>	85%	

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

<b>SM-7</b>	<b>Discharged on Antithrombotic Therapy</b>	<b>Other Identifiers:</b> STK-2; CMS ID-104; NQF#-0435 Data Abstraction required for this measure as per CMS.
<b>Measure Type</b>	Clinical Process	<b>Applicable to:</b> <input checked="" type="checkbox"/> Stroke Ready Centers Required <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required
<b>Background</b>	Ischemic stroke patients prescribed antithrombotic therapy at hospital discharge.	
<b>Numerator Inclusion</b>	All eligible ischemic stroke patients who received prescription for antithrombotic at time of discharge.	
<b>Denominator Inclusion</b>	All eligible patients presenting with acute ischemic stroke symptoms.	
<b>Exclusion</b>	<p>Patients with length of stay greater than 120 days.</p> <p>Patients transferred to another facility, or who left Against Medical Advice.</p> <p>Patients enrolled in clinical trials.</p> <p>Patients with a documented Reason for Not Prescribing Antithrombotic Therapy at Discharge.</p> <p>Patients under the age of 18.</p>	
<b>Data Source</b>	<p>ED log chief complaints.</p> <p>ED recorded time of patient presentation; ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients;</p> <p>Neuro-imaging results.</p> <p>Documentation of contraindications to administration (if applicable).</p> <p>Documentation that prescription for antithrombotic given at discharge.</p>	
<b>Definitions</b>	<p><b>Eligible Patients:</b> <i>Those patients age 18 &amp; older with an acute ischemic stroke diagnosis for which antithrombotic therapy is deemed to be indicated.</i></p> <p><b>Antithrombotic Therapy:</b> <i>group of medications which would include anti-platelets and anticoagulants.</i></p>	
<b>Threshold</b>	85%	

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

<b>SM-8</b>	<b>Anticoagulation Therapy for Atrial Fibrillation/Flutter</b>	<b>Other Identifiers:</b> STK-3; CMS ID-105; NQF#-0439 Data Abstraction required for this measure as per CMS.
<b>Measure Type</b>	Clinical Process	<b>Applicable to:</b> <input checked="" type="checkbox"/> Stroke Ready Centers Required <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required
<b>Background</b>	Ischemic stroke patients with atrial fibrillation/flutter who are prescribed anticoagulation therapy at hospital discharge.	
<b>Numerator Inclusion</b>	All eligible ischemic stroke patients who received prescription for anticoagulant at time of discharge.	
<b>Denominator Inclusion</b>	All eligible ischemic stroke patients with atrial fibrillation.	
<b>Exclusion</b>	<p>Patients: transferred to another facility; left against medical advice; expired.</p> <p>Patients with contraindications to anticoagulant therapy.</p> <p>Patients with length of stay greater than 120 days.</p> <p>Patients enrolled in clinical trials. Patients under the age of 18.</p> <p>Patients with a documented Reason for Not Prescribing Antithrombotic Therapy at Discharge.</p> <p>Patients admitted for Elective Carotid Intervention.</p>	
<b>Data Source</b>	<p>ED log chief complaints.</p> <p>ED recorded time of patient presentation; ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients.</p> <p>Neuro-imaging results.</p> <p>Documentation of contraindications to administration (if applicable).</p> <p>Documentation that prescription for anticoagulant given at discharge.</p>	
<b>Definitions</b>	<p><b>Eligible Patients:</b> <i>Those patients age 18 &amp; older with an acute ischemic stroke diagnosis for which antithrombotic therapy is deemed to be indicated.</i></p> <p><b>Atrial Fibrillation:</b> <i>Clinical diagnosis.</i></p>	
<b>Threshold</b>	85%	

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

<b>SM-9</b>	<b>Venous Thromboembolism (VTE) Prophylaxis</b>	<i>Other Identifiers: STK-1; CMS ID-108; NQF#-0371</i> Data Abstraction required for this measure as per CMS.
<b>Measure Type</b>	Patient Safety	<b>Applicable to:</b> <input checked="" type="checkbox"/> Stroke Ready Centers Required <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required
<b>Background</b>	Number of eligible patients received VTE prophylaxis the day of, or the day after hospital inpatient admission / Number patients with ischemic stroke determined to be at risk for VTE.	
<b>Numerator Inclusion</b>	All eligible Ischemic or hemorrhagic stroke patients who received VTE prophylaxis the day of, or the day after hospital inpatient or have a documented reason why no VTE prophylaxis was given within timeframe.	
<b>Denominator Inclusion</b>	All eligible Ischemic or hemorrhagic stroke patients determined to be at risk for VTE.	
<b>Exclusion</b>	<p>Patients transferred to another facility, or who left Against Medical Advice.</p> <p>Patients enrolled in clinical trials.</p> <p>Length of stay less than two days or greater than 120 days.</p> <p>Patients under the age of 18.</p>	
<b>Data Source</b>	<p>ED log chief complaints.</p> <p>ED recorded time of patient presentation; ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients.</p> <p>Neuro-imaging results; documentation of contraindications to administration (if applicable).</p> <p>Documentation that VTE prophylaxis was initiated the day of, or the day after hospital inpatient admission.</p>	
<b>Definitions</b>	<p><b>Eligible Patients:</b> <i>Those patients age 18 &amp; older with an acute ischemic stroke diagnosis determined to be at risk for VTE for which prophylaxis is deemed to be indicated.</i></p> <p><b>VTE Prophylaxis:</b> <i>treatments given to thwart the development of VTE, to include anticoagulant medications, sequential compression stockings, and early mobilization.</i></p> <p><b>VTE:</b> <i>Venous Thromboembolism.</i></p>	
<b>Threshold</b>	85%	

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

<b>SM-10</b>	<b>Discharged on Statin Medication</b>	<i>Other Identifiers: STK-6; CMS ID-105; NQF#-0439</i> Data Abstraction required for this measure as per CMS.
<b>Measure Type</b>	Clinical Process	<b>Applicable to:</b> <input checked="" type="checkbox"/> Stroke Ready Centers Required <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required
<b>Background</b>	Ischemic stroke patients with LDL greater than or equal to 100 mg/dL, or LDL not measured, or, who were on a lipid- lowering medication prior to hospital arrival are prescribed statin medication at hospital discharge.	
<b>Numerator Inclusion</b>	All eligible ischemic stroke patients who received prescription for statin at the time of discharge.	
<b>Denominator Inclusion</b>	All discharged patients with ischemic stroke with an LDL greater than or equal to 100 mg/dL, OR LDL not measured, OR who were on a lipid-lowering medication prior to hospital arrival.	
<b>Exclusion</b>	<p>Patients with allergies to statin medications.</p> <p>Patients who: transferred to another facility; left against medical advice; expired.</p> <p>Patients with length of stay greater than 120 days.</p> <p>Patients enrolled in clinical trials. Patients under the age of 18.</p> <p>Patients with a documented Reason for Not Prescribing Statin Medication at Discharge.</p>	
<b>Data Source</b>	<p>ED log chief complaints.</p> <p>ED recorded time of patient presentation; ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients.</p> <p>Neuro-imaging results.</p> <p>Documentation of contraindications to administration (if applicable).</p> <p>Documentation that statin prescription was given at time of discharge.</p>	
<b>Definitions</b>	<p><b>Eligible Patients:</b> <i>Those patients age 18 &amp; older with an acute ischemic stroke diagnosis.</i></p> <p><b>Statin:</b> <i>Lipid-lowering Therapy.</i></p>	
<b>Threshold</b>	85%	

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

<b>SM-11</b>	<b>Stroke Education</b>	<i>Other Identifiers: STK-8; CMS ID-107; NQF#-0440</i> Data Abstraction required for this measure as per CMS.
<b>Measure Type</b>	Patient/Family Engagement	<b>Applicable to:</b> <input checked="" type="checkbox"/> Stroke Ready Centers Required <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required
<b>Background</b>	Ischemic or hemorrhagic stroke patients or their caregivers who were given educational materials during the hospital stay addressing all of the following: activation of emergency medical system, need for follow-up after discharge, medications prescribed at discharge, risk factors for stroke, and warning signs and symptoms of stroke.	
<b>Numerator Inclusion</b>	Ischemic or hemorrhagic stroke patients with documentation that they or their caregivers were given educational material addressing all of the following: <ol style="list-style-type: none"> <li>1. Activation of emergency medical system</li> <li>2. Follow-up after discharge</li> <li>3. Medications prescribed at discharge</li> <li>4. Risk factors for stroke</li> <li>5. Warning signs and symptoms of stroke</li> </ol>	
<b>Denominator Inclusion</b>	All ischemic stroke or hemorrhagic stroke patients discharged to home.	
<b>Exclusion</b>	Patients transferred to another facility, or who left Against Medical Advice. Patients with length of stay greater than 120 days. Patients enrolled in clinical trials.	
<b>Data Source</b>	ED log chief complaints; ED recorded time of patient presentation, ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients; Neuro-imaging results; Documentation of contraindications to administration (if applicable); Documentation that smoking cessation advice has been provided prior to discharge.	
<b>Definitions</b>	<i>Eligible Patients: Those patients age 18 &amp; older with an acute ischemic stroke, hemorrhagic stroke diagnosis.</i>	
<b>Threshold</b>	85%	

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

SM-12	Dysphagia Screening
<b>Measure Type</b>	Evaluation <b>Applicable to:</b> <input type="checkbox"/> Stroke Ready Centers Optional <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required
<b>Background</b>	Number of eligible patients received dysphagia screen prior to receiving anything by mouth / Number patients with acute stroke symptoms who received anything by mouth.
<b>Numerator Inclusion</b>	All eligible patients who received dysphagia screen and have received something by mouth.
<b>Denominator Inclusion</b>	All eligible patients who received anything by mouth.
<b>Exclusion</b>	TIA patients excluded if clinically indicated; Patients who left AMA. Patients transferred to another facility. Patients who did not receive anything by mouth. Patients under the age of 18.
<b>Data Source</b>	ED log chief complaints; ED recorded time of patient presentation, ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients; Neuro-imaging results; Documentation that dysphagia screen completed prior to taking anything by mouth.
<b>Definitions</b>	<b>Eligible Patients:</b> <i>Those patients age 18 &amp; older with acute stroke symptoms.</i> <b>Dysphagia Screen:</b> <i>Simple, valid bedside testing protocol (may be performed by RN).</i>
<b>Threshold</b>	85%

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

<b>SM-13</b>	<b>Assessed for Rehabilitation</b>	<i>Other Identifiers: STK-10; CMS ID-102; NQF#-0441</i> Data Abstraction required for this measure as per CMS.
<b>Measure Type</b>	Care Coordination	<b>Applicable to:</b> <input checked="" type="checkbox"/> Stroke Ready Centers Required <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required
<b>Background</b>	Ischemic or hemorrhagic stroke patients who were assessed for rehabilitation services.	
<b>Numerator Inclusion</b>	All eligible patients who received physical rehabilitation evaluation.	
<b>Denominator Inclusion</b>	All eligible patients.	
<b>Exclusion</b>	<p>Patients who: transferred to another facility; left against medical advice; expired.</p> <p>Patients with length of stay greater than 120 days.</p> <p>Patients enrolled in clinical trials.</p> <p>Patients admitted for Elective Carotid Intervention.</p>	
<b>Data Source</b>	<p>ED log chief complaints.</p> <p>ED recorded time of patient presentation; ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients.</p> <p>Neuro-imaging results.</p> <p>Documentation that initial physical rehab evaluation completed.</p>	
<b>Definitions</b>	<p><b>Eligible Patients:</b> <i>Those patients age 18 &amp; older with acute ischemic or hemorrhagic stroke.</i></p> <p><b>Initial Physical Rehab:</b> <i>must be conducted by a PT and as per clinical need assessments to include OT and ST.</i></p>	
<b>Threshold</b>	85%	

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

SM-14 Door-to-Needle time	
<b>Measure Type</b>	Clinical Process <b>Applicable to:</b> <input checked="" type="checkbox"/> Stroke Ready Centers Required <input checked="" type="checkbox"/> Primary Stroke Centers Required <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required
<b>Background</b>	Acute ischemic stroke patients age 18 years and older receiving intravenous tissue plasminogen activator (tPA) therapy during the hospital stay and having a time from hospital arrival to initiation of thrombolytic therapy administration (door-to-needle) of 60 minutes or less.
<b>Numerator Inclusion</b>	Acute ischemic stroke patients aged 18 years or older receiving intravenous tissue plasminogen activator (tPA) therapy during the hospital stay and having a time from hospital arrival to initiation of thrombolytic therapy administration (door-to-needle time) of 60 minutes or less.
<b>Denominator Inclusion</b>	All acute ischemic stroke patients who received intravenous thrombolytic therapy within 4.5 hours of symptom onset.
<b>Exclusion</b>	<p>Patients less than 18 years of age.</p> <p>Patient stroke occurred while in hospital.</p> <p>Patients received in transfer from the inpatient, or outpatient of another facility.</p> <p>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 as the cause for delay; social, religious, initial refusal, hypertension requiring aggressive control with intravenous medications, inability to confirm patients eligibility, or further diagnostic evaluation to confirm stroke for patients with hypoglycemia (blood glucose &lt;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.</p> <p>Clinical trial.</p>
<b>Data Source</b>	Discharges with principal diagnosis code for Acute Ischemic Stroke.
<b>Definitions</b>	<b>Door-to-needle:</b> <i>time from hospital arrival to administration of intravenous tissue activator (tPA) therapy.</i>
<b>Threshold</b>	85%

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

SM-15	National Institutes of Health Stroke Scale Score on Arrival			
Measure Type	Evaluation	Applicable to: <input type="checkbox"/> Stroke Ready Centers Optional <input type="checkbox"/> Primary Stroke Centers Optional <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required		
<b>Background</b>	Percentage of patients who have an ischemic stroke or who have a transient ischemic attack (TIA) with a deficit at the time of the initial admitting note or neurology consultation note for which a National Institutes of Health Stroke Scale (NIHSS) score is documented.			
<b>Numerator Inclusion</b>	<p>Number of patients with ischemic stroke with a deficit at the time of the initial admitting or neurological consultation note for whom an NIHSS is recorded in the first admitting note or in the first neurology consultation notes, whichever comes first, or in a separate earlier note.</p> <p>Patients with acute ischemic stroke treated with tPA or with an acute endovascular procedure must be included in the numerator only if the NIHSS is performed before the start of these treatments.</p>			
<b>Denominator Inclusion</b>	<p>All patients who have an ischemic stroke with a deficit at the time of the initial admitting or neurology consultation note or who undergo intravenous tPA or acute endovascular treatment with complete resolution of their deficit.</p> <p>Patients with a TIA should be included if they still have a deficit at the time of the initial admitting or consultation note. In addition, the NIHSS be performed by a certified examiner.</p>			
<b>Exclusion</b>	<p>Patients under the age of 18.</p> <p>Patients who expired within one hour of arrival to hospital.</p> <p>Patients admitted for Elective Carotid Intervention.</p>			
<b>Data Source</b>	Primary diagnosis of Ischemic Stroke or TIA.			
<b>Definitions</b>	<p><b>TIA: Transient Ischemic Attack.</b></p> <p><b>tPA: tissue plasminogen activator.</b></p>			
<b>Threshold</b>	85%			

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

SM-16	Severity Measurement on Arrival		
<b>Measure Type</b>	Evaluation	<b>Applicable to:</b> <input type="checkbox"/> Stroke Ready Centers Optional <input type="checkbox"/> Primary Stroke Centers Optional <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required	
<b>Background</b>	<p>Percentage of SAH, ICH, and AVM patients for whom initial severity measures are documented.</p> <p>The severity of SAHs must be documented with the Hunt and Hess scale, which incorporates the Glasgow Coma Scale (GCS) and the size and location of the hemorrhage, AVMs should be graded according to the Spetzler-Martin scale.</p> <p>A combined ratio should be calculated as the primary metric.</p>		
<b>Numerator Inclusion</b>	<p>The sum of the number of SAH patients for whom the Hunt and Hess scale is documented, the number of ICH patients without an AVM for whom the ICH score is documented, the number of AVM patients with hemorrhage for whom the ICH score and Spetzler-Martin score are documented, and the number of AVM patients without hemorrhage for whom the Spetzler-Martin is documented.</p> <p>For a patient to be counted in the numerator, the Hunt and Hess and GCS scores should be documented in the initial neurological or neurosurgical admitting or consultation note or in a separate earlier note and should be evaluated before the start of any endovascular or surgical procedure. The ICH score and Spetzler-Martin score may be determined later after analysis of imaging.</p>		
<b>Denominator Inclusion</b>	Sum of the number of SAH patients, the number of ICH patients without an AVM, and the number of AVM patients.		
<b>Exclusion</b>	<p>Patients less than 18 years of age.</p> <p>Patients who expired within one hour of arrival at this hospital.</p> <p>Patients with traumatic brain injury (TBI), unruptured arteriovenous malformation (AVM), and non-traumatic subdural hematoma.</p>		
<b>Data Source</b>	Primary diagnosis of Ischemic Stroke.		
<b>Definitions</b>	<p><b>SAH:</b> <i>Aneurysmal Subarachnoid Hemorrhage.</i></p> <p><b>ICH:</b> <i>Ischemic Cerebrovascular Disease.</i></p> <p><b>AVM:</b> <i>Arteriovenous Malformations.</i></p> <p><b>GCS:</b> <i>Glasgow Coma Scale.</i></p>		
<b>Threshold</b>	85%		

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

SM-17	Clipping / Coiling within 48 hours (core measure = 48 hours)		
<b>Measure Type</b>	Clinical Process	<b>Applicable to:</b> <input type="checkbox"/> Stroke Ready Centers Optional	<input type="checkbox"/> Primary Stroke Centers Optional <input checked="" type="checkbox"/> Comprehensive Stroke Centers Required
<b>Background</b>	Median time from admission to start of procedure intended to obliterate a ruptured aneurysm by surgical clipping or endovascular coiling for patients who arrive within 48 hours of the hemorrhage that led directly to admission.		
<b>Numerator Inclusion</b>	Patients who are not treated must be excluded from this metric, but the reason they were not treated must be recorded. Times for this metric should be recorded to the nearest hour, in contrast to the measures for acute ischemic stroke, which should be recorded in hours and minutes. Patients with sentinel hemorrhage greater than 48 hours before admission and a second hemorrhage within the 48 hours before admission should be included in this metric.		
<b>Denominator Inclusion</b>	Total number of patients with aneurysmal SAH who arrive within 48 hours of hemorrhage and whose ruptured aneurysm is not coiled or clipped within 36 hours of arrival.		
<b>Exclusion</b>	<p>Patients under the age of 18 years</p> <p>Reasons for not treating may include but are not limited to futility, medical instability, patient or family wishes, and delayed arrival of the patient to the hospital.</p>		
<b>Data Source</b>	<p>Patients under the age of 18 years</p> <p>Primary diagnosis of aneurysmal SAH</p>		
<b>Definitions</b>	<b>SAH: Aneurysmal Subarachnoid Hemorrhage.</b>		
<b>Threshold</b>	85%		

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

SM-18	Nimodipine Treatment within 24 hours to <21 days		
<b>Measure Type</b>	Clinical Process	<b>Applicable to:</b> <input type="checkbox"/> Stroke Ready Centers Optional	<input type="checkbox"/> Primary Stroke Centers Optional <input checked="" type="checkbox"/> Comprehensive Stroke Centers Optional *
<b>Background</b>	<p>Percentage of patients with documented aneurysmal SAH for whom nimodipine treatment (60 mg every 4 hours or 30 mg every 2 hours) is started within 24 hours of diagnosis and for whom such treatment is continued until 21 days after the hemorrhage or until discharge if they are discharged &lt; 21 days after the SAH.</p> <p>Patients who arrive at a CSC with documented aneurysmal SAH should receive nimodipine within 24 hours of admission.</p> <p>The AHA/ASA “Guidelines for the Management of Aneurysmal Subarachnoid Hemorrhage” recommend nimodipine to reduce the risk of poor outcomes after aneurysmal SAH. Nimodipine has been approved by the US Food and Drug Administration for “improvement of neurological outcome by reducing the incidence and severity of ischemic deficits in patients with subarachnoid hemorrhage from ruptured intracranial berry aneurysms.”</p>		
<b>Numerator Inclusion</b>	<p>Patients with documented aneurysmal SAH treated with nimodipine 60 mg every 4 hours (or 30 mg every 2 hours) within 24 hours of diagnosis and who continue this treatment until 21 days after their hemorrhage, or until discharge if they are discharged less than 21 days after the SAH, or until they develop a contraindication to nimodipine. Acceptable contraindications include documentation of intractable hypotension or allergy to nimodipine. Patients whose dose of nimodipine is reduced because of hypotension will be considered to be in compliance with this metric.</p>		
<b>Denominator Inclusion</b>	<p>All patients with a diagnosis of aneurysmal SAH who are included in the population that has been or should have been a candidate for Nimodipine treatment.</p>		
<b>Exclusion</b>	<p>Patients under the age of 18 years</p>		
<b>Data Source</b>	<p>Patients with primary diagnosis of SAH</p>		
<b>Definitions</b>	<p><b>SAH: Aneurysmal Subarachnoid Hemorrhage.</b></p>		
<b>Threshold</b>	<p>85%</p>		

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

SM-19	INR Reversal
<b>Measure Type</b>	Clinical Process <b>Applicable to:</b> <input type="checkbox"/> Stroke Ready Centers Optional <input type="checkbox"/> Primary Stroke Centers Optional <input checked="" type="checkbox"/> Comprehensive Stroke Centers Optional *
<b>Background</b>	Median time from arrival to start of treatment to reverse the INR with a procoagulant preparation (e.g., fresh frozen plasma, recombinant factor VIIa, prothrombin complex concentrates) for patients with warfarin-associated ICH and an elevated INR (INR >1.4).  Times for this metric should be recorded in minutes.
<b>Numerator Inclusion</b>	ICH stroke patients for whom treatment to reverse the INR with a procoagulant (e.g., fresh frozen plasma, recombinant factor VIIa, prothrombin complex concentrates) was initiated within 2 hours (120 minutes) of arrival at this hospital.
<b>Denominator Inclusion</b>	ICH stroke patients with an INR > 1.4.
<b>Exclusion</b>	<p>Patients with an elevated INR should be excluded from this metric if a reason is documented for not treating them.</p> <p>Patients less than 18 years of age.</p> <p>Patients with Comfort Measures Only documented on day of or after hospital arrival.</p> <p>Patients enrolled in clinical trials.</p> <p>Patients with procoagulant therapy initiated prior to hospital arrival.</p> <p>Patients who expired within two hours of arrival at this hospital.</p>
<b>Data Source</b>	
<b>Definitions</b>	<p><b>ICH:</b> <i>Intracerebral Hemorrhage.</i></p> <p><b>INR:</b> <i>International Normalized Ratio.</i></p>
<b>Threshold</b>	85%

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

SM-20	Diagnostic Neuroangiography within 24 hours		
<b>Measure Type</b>	Evaluation	<b>Applicable to:</b> <input type="checkbox"/> Stroke Ready Centers Optional	<input type="checkbox"/> Primary Stroke Centers Optional <input checked="" type="checkbox"/> Comprehensive Stroke Centers Optional *
<b>Background</b>	<p>Percentage of patients with stroke or death within 24 hours of diagnostic neuroangiography.</p> <p>This metric is limited to patients with atherosclerotic disease to ensure that the metric encompasses a uniform population of patients.</p>		
<b>Numerator Inclusion</b>	Patients with death or stroke after diagnostic neuroangiography within 24 hours of the procedure or before discharge, whichever comes first.		
<b>Denominator Inclusion</b>	All patients who undergo a diagnostic neuroangiographic procedure.		
<b>Exclusion</b>	<p>Patients are excluded if they undergo a therapeutic angiographic intervention as part of the same procedure or within the first 24 hours after the diagnostic procedure unless the complication is identified before the therapeutic intervention begins.</p> <p>Strokes or deaths that occur after 24 hours of the diagnostic angiogram.</p> <p>Patients less than 18 years of age.</p>		
<b>Data Source</b>	Inclusion of only those strokes or deaths that occur within 24 hours of the diagnostic angiogram.		
<b>Definitions</b>			
<b>Threshold</b>	85%		

## CLINICAL MEASURES AND PERFORMANCE INDICATORS

SM-21	Discharge Physical Rehabilitation Referral
<b>Measure Type</b>	Care Coordination <b>Applicable to:</b> <input type="checkbox"/> Stroke Ready Centers Optional <input type="checkbox"/> Primary Stroke Centers Optional <input checked="" type="checkbox"/> Comprehensive Stroke Centers Optional *
<b>Background</b>	Number of eligible patients receiving appropriate physical rehab referral prior to discharge / Number discharge patients with ischemic or hemorrhagic stroke.
<b>Numerator Inclusion</b>	All eligible patients who received initial physical rehabilitation referral prior to discharge.
<b>Denominator Inclusion</b>	All eligible patients discharged.
<b>Exclusion</b>	<p>Patients who left AMA.</p> <p>Patients transferred to another facility.</p> <p>Diagnosis of TIA.</p> <p>Patients under the age of 18.</p>
<b>Data Source</b>	<p>ED log chief complaints;</p> <p>ED recorded time of patient presentation, ED recorded time of stroke team arrival, discharge diagnoses, documented onset of symptomology of inpatients;</p> <p>Neuro-imaging results;</p> <p>Documentation that initial physical rehab referral completed prior to discharge.</p>
<b>Definitions</b>	<p><b>Eligible Patients:</b> <i>Those patients age 18 &amp; older with acute ischemic or hemorrhagic stroke.</i></p> <p><b>Initial Physical Rehab:</b> <i>PT, OT, ST.</i></p> <p><b>TIA:</b> <i>Transient Ischemic Attack.</i></p> <p><b>Physical Rehab Referral:</b> <i>PT, OT, ST - to continue post discharge as needed.</i></p>
<b>Threshold</b>	85%



# Stroke Certification

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Glossary v2.2

A Program of the American Osteopathic Association  
142 East Ontario Street Chicago, IL 60611-2864



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AMERICAN OSTEOPATHIC ASSOCIATION

TREATING OUR FAMILY AND YOURS

## GLOSSARY

This glossary of terms and abbreviations has been compiled to furnish users of the document, Healthcare Facilities Accreditation Program's (HFAP) Accreditation Requirements for Acute Care Healthcare Facilities, with a common terminology. The availability of the glossary, it is hoped, will lead to a clearer understanding of the intent of these requirements and guidelines.

It is recognized that the meaning of terms varies regionally in the United States and that the accepted terminology may differ. The requirements are those of a national program, which is applied nationwide without regard to geographical variations in practices or laws.

Items with an \*asterisk indicate definition is directly quoted from the CMS Specifications Manual For Hospital Inpatient Quality Measures (2013).

Title / Acronym	Definition / Explanation
<b>AAO</b>	American Academy of Osteopathy
<b>ABMS</b>	American Board of Medical Specialties
<b>ABPN</b>	American Board of Psychiatry and Neurology
<b>ACLS</b>	Advanced Cardiac Life Support
<b>Acute Hemorrhagic Stroke</b>	*A non-traumatic intracerebral hemorrhage, subarachnoid hemorrhage or hemorrhagic infarction.
<b>Acute Ischemic Stroke</b>	*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.
<b>Acute Myocardial Infarction (AMI)</b>	*Death of heart muscle resulting from insufficient blood supply to the heart.
<b>Allied Health Assistant</b>	Non-physicians qualified by special training and frequently by licensure who work in the health care field usually in supporting roles.
<b>AMT</b>	American Medical Technologist
<b>Anesthesiologists</b>	Physician who specializes in the administration of local or general anesthesia before and during surgery, performs cardiac and respiratory resuscitation, and alleviates chronic pain through anesthesia.
<b>Anesthetist</b>	A licensed physician not certified in anesthesiology who practices anesthesiology; a full-time resident in training; certified registered nurse anesthetist; registered nurse anesthetist.
<b>Angioplasty</b>	*Reconstruction of blood vessels damaged by disease or injury.

## GLOSSARY

<b>Antithrombotic Therapy</b>	*Pharmacologic agents (oral or parenteral) preventing or interfering with the formation of a thrombus or blood coagulation.
<b>Atherosclerosis</b>	*Common disorder characterized by yellowish plaques of cholesterol, other lipids, and cellular debris in the inner layers of the walls of arteries.
<b>Atrial Fibrillation</b>	*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.
<b>Atrial Flutter</b>	*Type of atrial tachycardia characterized by contraction rates between 230/min and 380/min.
<b>AOA</b>	American Osteopathic Association
<b>AOBNP</b>	American Osteopathic Board of Neurology and Psychiatry
<b>AOBP</b>	American Osteopathic Board of Pathology
<b>AOCP</b>	American Osteopathic College of Pathology
<b>ARRT</b>	American Registry of Radiologic Technologists
<b>ASCP</b>	American Society of Clinical Pathologists
<b>Audiologist</b>	A person who: (a) Meets the education and experience requirements for a Certificate of Clinical Competence in 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 experience required for certification.
<b>Authenticate</b>	To prove authorship by legible signature, or identifiable initials.
<b>BAC</b>	Brain Attack Coalition
<b>BLS</b>	Basic Life Support
<b>Blood Borne Pathogens</b>	Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to hepatitis B virus (HBV) and human immunodeficiency virus (HIV).
<b>Brain Attack Coalition (BAC)</b>	The Brain Attack Coalition is a multidisciplinary organization that includes most major medical organizations involved with stroke care that assembled to establish guidance about the formation and operation of stroke centers.

## GLOSSARY

<b>Caregiver</b>	*The patient's family or any other person who will be responsible for care of the patient after discharge. Also referred to as Significant Other – refer to CMS standards.
<b>CDC</b>	Centers for Disease Control
<b>CDS</b>	Controlled Dangerous Substance
<b>CFR</b>	Code of Federal Regulations (usually cited by part and chapter, as 21 CFR 211)
<b>Chief Executive Officer</b>	The individual appointed by the hospital's governing body to act in its behalf and who direct the overall management of the hospital.
<b>Clinical Process Measure</b>	*Measures designed to evaluate the processes or outcomes of care associated with the delivery of clinical services; allow for intra- and interorganizational comparisons to be used to continuously improve patient health outcomes; may focus on the appropriateness of clinical decision making and implementation of these decisions; must be condition specific, procedure specific, or address important functions of patient care (e.g., medication use, infection control, patient assessment, etc.).
<b>Clinical Pathways</b>	The process of interventions by healthcare professionals for a specific diagnosis or procedure designed to maximize the quality of care for the patient.
<b>Clinical Privileges</b>	The right granted to a licensed physician by a hospital's governing body to render medical care commensurate with professional qualifications and demonstrated professional ability.
<b>Clinical Review</b>	The review of clinical work of the facility. This should include case review and the presentation of reports of various committees or problems that deal with patient care in the hospital departments and/or staff meetings.
<b>CMS</b>	Centers for Medicare and Medicaid Services
<b>COHA</b>	Committee on Hospital Accreditation
<b>Competency</b>	The ability to adequately perform an assigned task or function.
<b>Complication</b>	Broadly defined, a clinical condition coexisting with the patient's chief complaint that may require investigation and/or treatment. Less broadly defined, a condition arising during the patient's hospital stay that alters the physician's plan of treatment.
<b>Comprehensive Stroke Center</b>	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." <u>Source:</u> Alberts, Mark J., et al., "Recommendations for the Establishment of Primary Stroke Centers," <u>JAMA</u> , June 21, 2000, Vol. 283, No. 23, 3102-3109.

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	<p>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.”</p> <p><u>Source:</u> Alberts, MJ, et al, “Recommendations for Comprehensive Stroke Centers – A Consensus Statement from the Brain Attack Coalition,” <u>Stroke</u>, July 2005, 1597-1618.</p>
<b>Consultant</b>	A second physician called by an attending physician to examine a patient and discuss a case.
<b>Continuous(ly)</b>	Available at all times without cessation, break, or interruption.
<b>Continuous Quality Improvement (CQI)</b>	Ongoing interdisciplinary commitment to strive for improvement in systems in order to provide quality healthcare that meets or exceeds patient/customer expectations.
<b>Coverage of</b>	Health worker either physically present or available to render care when required.
<b>Coverage on</b>	Health worker is physically present on a specific unit during entire tour of duty.
<b>CPR</b>	Cardiopulmonary resuscitation.
<b>Critical Access Hospital (CAH)</b>	<p>*A facility that meets the following criteria may be designated by CMS as a CAH:</p> <ul style="list-style-type: none"> <li>– Is located in a State that has established with CMS a Medicare rural hospital flexibility program; and</li> <li>– Has been designated by the State as a CAH; and</li> <li>– Is currently participating in Medicare as a rural public, non-profit or for-profit hospital; or was a participating hospital that ceased operation during the 10-year period from November 29, 1989 to November 29, 1999; or is a health clinic or health center that was downsized from a hospital; and</li> <li>– Is located in a rural area or is treated as rural; and</li> <li>– Is located more than a 35-mile drive from any other hospital or CAH (in mountainous terrain or in areas with only secondary roads available, the mileage criterion is 15 miles); and</li> <li>– Maintains no more than 25 inpatient beds; and</li> <li>– Maintains an annual average length of stay of 96 hours per patient for acute inpatient care; and</li> <li>– Complies with all CAH Conditions of Participation, including the requirements to make available 24-hour emergency care services 7 days per week.</li> <li>– A CAH may also be granted “swing-bed” approval to provide post-hospital Skilled Nursing Facility-level care in its inpatient beds. In the case of hospice care, a hospice may contract with a CAH to provide the Medicare hospice</li> </ul>

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	hospital benefit. Reimbursement from Medicare is made to the hospice. The CAH may dedicate beds to the hospice, but the beds must be counted toward the 25-bed maximum. However, the hospice patient is not included in the calculation of the 96-hour annual average length of stay. The hospice patient can be admitted to the CAH for any care involved in their treatment plan or for respite care. The CAH negotiates reimbursement through an agreement with the hospice. In addition to the 25 inpatient CAH beds, a CAH may also operate a psychiatric and/or a rehabilitation distinct part unit of up to 10 beds each. These units must comply with the Hospital Conditions of Participation.
<b>CRNA</b>	Certified Registered Nurse Anesthetist
<b>CRTT</b>	Certified Respiratory Therapy Technician
<b>Data: Collection</b>	*The act or process of capturing raw or primary data from a single or number of sources. Also called "data gathering."
<b>Data: Denominator</b>	*The lower part of a fraction used to calculate a rate, proportion, or ratio. Also the population for a rate-based measure.
<b>Data: Entry</b>	*The process by which data are transcribed or transferred into an electronic format.
<b>Data: Quality</b>	*The accuracy and completeness of measure data on performance in the context of the analytic purposes for which they will be used.
<b>Data: Numerator</b>	*The upper portion of a fraction used to calculate a rate, proportion, or ratio.
<b>DEA</b>	Drug Enforcement Administration
<b>Deep Sedation/Analgesia</b>	Deep Sedation is a drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained.
<b>Department</b>	An organizational entity of the hospital or its medical staff.
<b>Diagnosis</b>	A physician's technical description of the disease afflicting a patient.
<b>Document of Co-operation</b>	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.
<b>DHHS</b>	United States Department of Health and Human Services
<b>Primary Diagnosis</b>	The physician's description of the disease or illness chiefly responsible for the patient seeking medical care (Principal) or for being hospitalized.

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<b>Discharge Diagnosis (Final)</b>	The physician's final, recorded diagnosis.
<b>Direction</b>	Authoritative policy or procedural guidance for the accomplishment of a function or activity.
<b>DRG</b>	Diagnosis Related Groups
<b>Elective Carotid Endarterectomy</b>	*Surgical procedure performed 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.
<b>Elective Carotid Intervention</b>	*Surgery (e.g., carotid endarterectomy) and other procedures (e.g., carotid angioplasty, stenting) involving the carotid artery, performed due to the patient's choice.
<b>Electrocardiogram (ECG)</b>	*A graphic tracing of the heart's electrical impulses.
<b>Emergency Department (ED)</b>	*A portion of the hospital where emergency diagnosis and treatment of illness or injury is provided.
<b>Emergency Medical System (EMS)</b>	*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.
<b>Episode of Care (EOC)</b>	*An Episode of Care (EOC) is defined as the health care services given during a certain period of time, usually during a hospital stay (e.g., from the day of arrival or admission to the day of discharge).
<b>Ex Officio</b>	A position occupied by a person by virtue of this office or function.
<b>Extern</b>	A medical or dental student, under professional supervision performs stipulated clinical duties.
<b>Facilities</b>	Identifies buildings, specialized sections of a physical plant, or the equipment necessary to render medical care.
<b>FACIS</b>	Fraud and Abuse Control Information System
<b>FDA</b>	Food and Drug Administration
<b>FSMB</b>	Federation of State Medical Boards
<b>General Anesthesia</b>	General Anesthesia is a drug- induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired. Because sedation is a continuum, it is not always possible to predict how an individual patient will respond. Hence practitioners intending to produce a given level of sedation should be able to rescue patients

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	whose level of sedation becomes deeper than initially intended. Individuals administering Moderate Sedation/Analgesia (Conscious Sedation) should be able to rescue patients who enter a state of Deep Sedation/Analgesia, while those administering Deep Sedation/Analgesia should be able to rescue patients who enter a state of general anesthesia.
<b>Governing Body (Authority)</b>	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.
<b>Code of</b>	The U.S. Environmental Protection Agency (EPA) under regulations contained in Title 40 of the Federal Regulations (40 CFR). Primary sources of chemical waste include the medical research laboratory, the clinical laboratory, pharmacy, housekeeping, engineering, and maintenance operations.
<b>Health Care Facility</b>	An organization that directly provides or supplies health care service for which Medicare/Medicaid payment may be made in whole or in part.
<b>Health-Related Services</b>	Services, other than medical, performed by qualified personnel that pertain to protective, preventive, personal, and social services.
<b>Heart Failure (HF)</b>	*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.
<b>HFAP</b>	Healthcare Facilities Accreditation Program
<b>HIV</b>	Human Immunodeficiency Virus
<b>Home Health Services</b>	Organized health services provided in a patient's place of residence.
<b>Hospital</b>	*According to the American Hospital Association, hospitals are licensed institutions with at least six beds whose primary function is to provide diagnostic and therapeutic patient services for medical conditions by an organized physician staff, and have continuous nursing services under the supervision of registered nurses.
<b>Hospital Arrival, Time of</b>	For patients presenting to the Emergency Department, the "hospital arrival" time is the time the patient arrives in the Emergency Department, <u>not</u> the time of hospital admission. This term is used in the Primary Stroke Center 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 Primary Stroke Center QAPI process indicators.
<b>Hospital Inpatient</b>	A hospital patient who is provided with room, board, and continuous general nursing service.
<b>Hospital Patient</b>	An individual receiving hospital-based or coordinated medical services for which the hospital is responsible.
<b>House Staff</b>	Interns and residents participating in organized training programs in institutions approved by the AOA and participating in patient care under the direction and supervision of the medical staff.
<b>H&amp;P</b>	History and Physical

## GLOSSARY

<b>ICD</b>	International Classification of Diseases
<b>ICO</b>	Infection Control Officer
<b>ICU</b>	Intensive Care Unit which has designated stroke beds, with a designated nursing and medical team, who have training and expertise in neurocritical care in the diseases that the patients have.
<b>Infectious Waste</b>	<p>Waste capable of producing an infectious disease. This definition requires a consideration of certain factors necessary for induction of disease. These factors include:</p> <ul style="list-style-type: none"> <li>a) Presence of a pathogen of sufficient virulence</li> <li>b) dose</li> <li>c) portal of entry</li> <li>d) resistance of host</li> </ul> <p>Therefore, for a waste to be infectious, it shall contain pathogens with sufficient virulence and quantity so that exposure to the waste by a susceptible host could result in an infectious disease. - U.S Environmental Protection Agency.</p>
<b>Infectious Waste (Categories)</b>	Contaminated needles, cultures and stocks of infectious agents, blood and blood products, and pathological wastes Center for Disease Control.
<b>Intracerebral Hemorrhage (ICH)</b>	*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.
<b>IV Thrombolytic Therapy</b>	*Intravenous administration of a thrombolytic agent, such as tissue plasminogen activator (TPA), to dissolve an arterial clot.
<b>Jurisdiction</b>	Designated as having the responsibility of and being the ultimate authority for a specific function, activity, group, or individual.
<b>LGN</b>	Licensed Graduate Nurse
<b>Low-Density Lipoprotein (LDL)</b>	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.”
<b>LPN</b>	Licensed Practical Nurse
<b>LSC</b>	Life Safety Code
<b>LVN</b>	Licensed Vocational Nurse

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<b>MAP</b>	Medical Admissions Profile
<b>MEC</b>	Medical Executive Committee
<b>Medical</b>	A term used to identify physicians (medical staff), distinguishing them from other health workers; used to identify services (medical care) rendered to patients by physicians and other health workers; and used to denote the practice of medicine, surgery, and other physician-oriented specialties (medical practice).
<b>Medical Director</b>	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.
<b>Medical Services</b>	Services performed at the direction of a physician on behalf of patients by physicians, dentists, nurses, and other professional personnel.
<b>Medical Staff</b>	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.
<b>Medicare condition</b>	Any condition of participation
<b>Minimal Sedation (Anxiolysis)</b>	Minimal Sedation is a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular functions are usually maintained.
<b>Moderate Sedation/ Analgesia (Conscious Sedation)</b>	Conscious Sedation is a drug-induced depression of consciousness during which patients respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained
<b>MPI</b>	Master Patient Index
<b>National Hospital Inpatient Quality Measure</b>	*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.
<b>NCQA</b>	National Committee for Quality Assurance
<b>NFAP</b>	National Fire Protection Agency
<b>Nuclear Medicine</b>	The clinical use of radionuclides for investigation, diagnosis, and therapy. Also the term used to identify this medical subspecialty.
<b>Nursing Care</b>	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.

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<b>Nursing Services</b>	Service providing curative, rehabilitative, and preventative aspects of nursing care to patients.
<b>Occupational Therapist</b> <b>A person who:</b>	<p>(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</p> <p>(b) Is eligible for the National Registration Examination of the American Occupational Therapy Association; or</p> <p>(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.</p>
<b>OR</b>	Operating Room
<b>Osteopathic Medical Student</b>	Pre-doctoral (third or fourth-year) medical student who is continuing their education in an AOA-approved (Clinical Clerk) hospital, and who performs assigned clinical duties under the supervision of a qualified physician.
<b>PACU</b>	Post Anesthesia Care Unit
<b>Patient</b>	A person who receives health care service from a health care provider.
<b>Peer Review</b>	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.
<b>Personal Protective Equipment (PPE)</b>	Specialized clothing or equipment worn by an employee for protection against a hazard.
<b>Physician</b>	A graduate of an accredited and appropriately recognized osteopathic or allopathic college of medicine (DO/MD) and is licensed in the state to practice.
<b>Physical Therapist</b>	<p>A person who is licensed as a physical therapist by the State in which practicing, and:</p> <p>(a) Has graduated from a physical therapy curriculum approved by:</p> <ol style="list-style-type: none"> <li>1) The American Physical Therapy Association; or</li> <li>2) The committee on Allied Health Education and Accreditation of the American Association; or</li> <li>3) The Council on Medical Education of the American Medical Association and the American Physical Therapy Association.</li> </ol>
<b>Physical Therapist Assistant</b>	<p>A person who is licensed as a physical therapy assistant if applicable by the State in which practicing, and;</p> <p>(a) Has graduated from a 2-year college level program approved by the American Physical Therapy Association; or</p> <p>(b) Has 2 years of appropriate experience as physical therapy assistant and has achieved a satisfactory grade on</p>

## GLOSSARY

	a proficiency examination conducted, approved, or sponsored by the U.S. Public Health Service, except that these determinations of proficiency do not apply with respect to person initially licensed by a State or seeking initial qualification as a physical therapy assistant after December 31, 1977.
<b>POC</b>	Plan of Correction
<b>Practitioner</b>	An individual credentialed within a recognized health care discipline and involved in providing the services of that discipline to patients.
<b>Primary Stroke Center</b>	<p>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.” “Their emergency departments should be able to offer approved therapies to appropriately selected patients whether the stroke is ischemic or hemorrhagic.”</p> <p><u>Source:</u> Alberts, Mark J., et al., “Recommendations for the Establishment of Primary Stroke Centers,” <i>JAMA</i>, June 21, 2000, Vol. 283, No. 23, 3102-3109.</p>
<b>Process</b>	*An interrelated series of events, activities, actions, mechanisms, or steps that transform inputs into outputs.
<b>Professional Staff</b>	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.
<b>Quality Assessment/Improvement</b>	A multi-disciplinary approach to measuring, assessing and improving outcomes.
<b>Radiologist</b>	A physician who is qualified by education and experience in radiology.
<b>Reperfusion</b>	*Reestablishing blood flow in an obstructed coronary artery. It may be accomplished with thrombolytic therapy or percutaneous coronary intervention.
<b>RN</b>	Registered Nurse
<b>Secondary Diagnosis (additional)</b>	The physician’s description of a clinical condition in the patient that exists at the time of admission or develops subsequently that affects the treatment received and/or length of stay.
<b>Signatures</b>	The use of rubber stamp signatures, mechanically or electronically affixed signatures on medical records, is permissible unless prohibited by law. It is the responsibility of the hospital and the individual physician to assure the appropriate use of such signatures.
<b>Significant Other</b>	A person who is nominated by the patient to be involved in his/her care. Significant other may also be known as next of kin or carer, nominated family member or friend.
<b>Speech Language</b>	A person who:

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<b>Pathologist</b>	<p>(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</p> <p>(b) Meets the educational requirements for certification and is in the process of accumulating the supervised experienced required for certification.</p>
<b>Statin</b>	*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.
<b>Stent</b>	*Rod or threadlike device for supporting tubular structures during surgical anastomosis or for holding arteries open during percutaneous angioplasty.
<b>Stroke (STK)</b>	*See definitions for Acute Ischemic Stroke and Acute Hemorrhagic Stroke.
<b>Stroke Ready Center</b>	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 serves as a notice to the community emergency medical service that the hospital is prepared to meet the initial needs of stroke patients.
<b>Stroke Unit</b>	A specific unit or section of the unit in which stroke patients are admitted and acute stroke clinicians are rostered.
<b>Subarachnoid Hemorrhage (SAH)</b>	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.
<b>Supervision</b>	Direct oversight and inspection of the act of accomplishing function or activity.
<b>Symptom Onset, Time of</b>	This term is the time the patient was last known to be without symptoms. The term is used in the Primary Stroke Center for the purpose of determining patient eligibility for tissue plasminogen activator (tPA) therapy. The term is also used with required Primary Stroke Center 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.
<b>TART</b>	Tenderness/Asymmetry/Restricted Motion/Tissue texture change
<b>Telemedicine</b>	Ability to provide remote diagnosis.
<b>Time Last Known Well</b>	*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.
<b>Tissue Plasminogen Activator (TPA)</b>	*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.
<b>Universal Precautions</b>	An approach to infection control. According to the concept of Universal Precautions, all human blood and certain body fluids are treated as if known to be infectious for HIV, HBV, and other Blood borne pathogens.

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<b>UR</b>	Utilization Review
<b>Validation</b>	*The process by which the integrity and correctness of data are established. Validation processes can occur immediately after a data item is collected or after a complete set of data are collected. The Centers for Medicare & Medicaid Services (CMS) chart level validation will validate the data at several levels. There are consistency and internal edit checks to assure the integrity of the submitted data; there are external edit checks to verify expectations about the volume of the data received, and there will be chart level audits to assure the reliability of the submitted data. Information on these procedures is available on <a href="http://www.qualitynet.org">http://www.qualitynet.org</a> .
<b>Venous Thromboembolism (VTE)</b>	*A term that includes deep vein thrombosis and/or pulmonary embolism.



# Primary Stroke Certification

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Index and Quick Reference Guide v2.2

A Program of the American Osteopathic Association  
142 East Ontario Street Chicago, IL 60611-2864



AMERICAN OSTEOPATHIC ASSOCIATION

TREATING OUR FAMILY AND YOURS

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