

# Prepublication Requirements

• Issued June 20, 2023, Revised August 29, 2023 •



## Revised Advanced Comprehensive Stroke Center Certification Requirements

The Joint Commission has approved the following revisions for prepublication. While revised requirements are published in the semiannual updates to the print manuals (as well as in the online *E-dition*®), accredited organizations and paid subscribers can also view them in the monthly periodical *The Joint Commission Perspectives*®. To begin your subscription, call 800-746-6578 or visit <http://www.jcrinc.com>.

**Please note:** Where applicable, this report shows current standards and EPs first, with deleted language struck-through. Then, the revised requirement follows in bold text, with new language underlined.

### APPLICABLE TO THE ADVANCED COMPREHENSIVE STROKE CENTER CERTIFICATION PROGRAM

Effective January 1, 2024

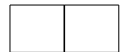
### Program Management (DSPR) Chapter

#### DSPR.01

The program defines its leadership roles.

#### Element(s) of Performance for DSPR.01

1. The program identifies members of its leadership team.



#### ***Requirements Specific to Comprehensive Stroke Center Certification***

- a. The organization appoints a comprehensive stroke center (CSC) medical director.
- b. The medical director for the comprehensive stroke center program is a physician with extensive experience and expertise in neurology and cerebrovascular disease. Examples include the following:
  - Stroke or vascular neurologist
  - Critical care neurologist
  - Vascular neurosurgeon

Key: **D** indicates that documentation is required;

**R** indicates an identified risk area;

**Requirements Specific to Comprehensive Stroke Center Certification**

a. The comprehensive stroke center appoints a physician with extensive knowledge and expertise in neurology and cerebrovascular disease as the comprehensive stroke center's (CSC) medical director to provide administrative leadership and clinical oversight to the stroke program.

Examples include the following:

- Stroke or vascular neurologist
- Critical care neurologist
- Vascular neurosurgeon

**Note:** The CSC's medical director does not have to be board certified in neurology or neurosurgery but must have sufficient knowledge of cerebrovascular disease to provide administrative leadership, clinical guidance, and input to the stroke program.

b. The comprehensive stroke center appoints an individual who is qualified through education, training, or experience who collaborates with the medical director to define, implement, and direct the program.

4. The program leader(s) identifies, in writing, the composition of the interdisciplinary team.

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**Requirement Specific to Comprehensive Stroke Center Certification**

a. The comprehensive stroke center documents the roles and responsibilities for members of the core stroke team.

**Requirements Specific to Comprehensive Stroke Center Certification**

a. The comprehensive stroke center identifies a core stroke team that includes, at a minimum, a nurse (or nurse practitioner or physician assistant) and a physician. Each member of the core stroke team has basic training in acute stroke care as defined by the comprehensive stroke center.

b. The comprehensive stroke center documents the roles and responsibilities for interdisciplinary team members including the core stroke team.

c. The comprehensive stroke center defines its interdisciplinary team so that it reflects the needs of its patients.

7. The program leader(s) makes certain that practitioners practice within the scope of their licensure, certification, training, and current competency.

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Key: **D** indicates that documentation is required;

**R** indicates an identified risk area;

***Requirement Specific to Comprehensive Stroke Center Certification***

a. Physicians and other licensed practitioners are trained, experienced, and privileged to diagnose and treat patients with stroke within the scope of their licensure, certification, training, current, and ongoing competency in accordance with applicable laws, regulations, and organizational requirements.

**DSPR.02**

The program is collaboratively designed, implemented, and evaluated.

**Element(s) of Performance for DSPR.02**

2. The interdisciplinary team implements the program.

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***Requirements Specific to Comprehensive Stroke Center Certification***

- a. The core stroke team approves the program’s education content for patients.
- b. The core stroke team determines the training and education content for staff based on staff’s roles and responsibilities.

3. The interdisciplinary team evaluates the program.

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***Requirement Specific to Comprehensive Stroke Center Certification***

a. At least quarterly, representatives of the interdisciplinary team meet to review performance of the stroke program and identify quality improvement opportunities. Documentation includes attendance records and meeting minutes.

**DSPR.03**

The program meets the needs of the target population.

**Element(s) of Performance for DSPR.03**

4. The services provided by the program are relevant to the target population.

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Key: **D** indicates that documentation is required;

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**Requirements Specific to Comprehensive Stroke Center Certification**

a. The comprehensive stroke center performs advanced imaging with multimodal imaging capabilities 24 hours a day, 7 days a week for the following:

- Catheter angiography
- Computed tomography (CT) of the head
- Computed tomography angiography (CTA)
- Magnetic resonance angiography (MRA)
- Magnetic resonance imaging (MRI), including diffusion-weighted MRI

b. The comprehensive stroke center performs advanced imaging with multimodal imaging capabilities for the following when indicated by patient need:

- Carotid duplex ultrasound
- ~~Extracranial ultrasonography~~
- Transcranial Doppler
- Transesophageal echocardiography (TEE)
- Transthoracic echocardiography (TTE)

c. The comprehensive stroke center has the capacity to perform the following procedures on site 24 hours a day, 7 days a week:

- ~~Microsurgical neurovascular clipping of aneurysms~~
- ~~Neuro-endovascular coiling of aneurysms~~
- ~~Stenting of extracranial carotid arteries~~
- Carotid endarterectomy (CEA)
- Endovascular therapy for the treatment of ischemic stroke

Note: Endovascular therapies refer to mechanical thrombectomy and intra-arterial thrombolytic therapy.

d. The comprehensive stroke center has a neurointensive care unit or designated intensive care beds that are available 24 hours a day, 7 days a week for the care of complex stroke patients.

e. ~~A description of the emergency medical services (EMS) is complete with any available treatment guidelines for pre-hospital personnel. Also, if available, include EMS stroke patient routing plans that address transferring stroke patients to stroke centers and stroke educational initiatives of the hospital for pre-hospital personnel. If these items are not available, a plan should be provided that demonstrates an initiative by the hospital to provide such with the EMS.~~

f. ~~The comprehensive stroke center sponsors at least two public educational activities that focus on stroke prevention and care annually.~~

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**Requirements Specific to Comprehensive Stroke Center Certification**

**a. The comprehensive stroke center collaborates with emergency medical services (EMS) providers to make certain of the following:**

- The comprehensive stroke center has a relationship with EMS providers that includes notification when a patient with suspected stroke is being transported to the center.**
- The comprehensive stroke center has access to treatment protocols utilized by EMS providers and prehospital personnel for emergency stroke care and transport of suspected stroke patients to stroke centers.**
- The program works collaboratively with EMS to make certain that providers have specific training in the use of at least one accepted stroke field assessment tool.**

Key: **(D)** indicates that documentation is required;

**(R)** indicates an identified risk area;

b. The comprehensive stroke center works collaboratively with EMS to provide stroke educational opportunities for EMS providers.

c. The comprehensive stroke center performs advanced imaging with multimodal imaging capabilities 24 hours a day, 7 days a week for the following:

- Catheter angiography
- Computed tomography (CT) of the head
- Computed tomography angiography (CTA)
- Magnetic resonance angiography (MRA)
- Magnetic resonance imaging (MRI), including diffusion-weighted MRI

d. The comprehensive stroke center performs the following types of advanced imaging when indicated by patient need:

- Carotid duplex ultrasound
- Transcranial Doppler
- Transesophageal echocardiography (TEE)
- Transthoracic echocardiography (TTE)

e. The comprehensive stroke center has the ability to complete initial laboratory tests on site 24 hours a day, 7 days a week.

Note: Laboratory tests may include a complete blood cell count with platelet count, coagulation studies (such as prothrombin time and International Normalized Ratio), blood chemistries, and troponin.

f. The comprehensive stroke center has the capacity to perform the following procedures on site 24 hours a day, 7 days a week:

- Treatment of intracranial aneurysms using an FDA-approved device
- Carotid artery procedures (for example carotid artery stenting, carotid endarterectomy, transcarotid artery revascularization [TCAR])
- Endovascular therapy for the treatment of ischemic stroke

Note: It is not required to maintain a 24 hours a day, 7 days a week call schedule for carotid artery procedures; however the CSC needs to be able to perform carotid artery procedures for patients with emergent needs.

g. The comprehensive stroke center has either a stroke unit or designated beds for the acute care of stroke patients.

Note: Stroke units can be defined and implemented in a variety of ways. The stroke unit does not have to be a specific enclosed area with beds designated only for acute stroke patients; it may be a specified unit or number of beds to which most stroke patients are admitted.

h. The comprehensive stroke center has a neurointensive care unit or designated intensive care beds that are available 24 hours a day, 7 days a week for the care of complex stroke patients.

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## **DSPR.05**

The program determines the care, treatment, and services it provides.

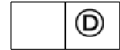
### **Element(s) of Performance for DSPR.05**

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Key: **(D)** indicates that documentation is required;

**(R)** indicates an identified risk area;

1. The program defines in writing the care, treatment, and services it provides.



**Requirements Specific to Comprehensive Stroke Center Certification**

a. The comprehensive stroke center currently participates in patient-centered stroke research that is approved by the Institutional Review Board.

Note: Patient-centered research refers to research focusing on clinical patient studies. Participating in an audited registry for stroke data and measure outcomes or in-laboratory-based research does not meet this requirement.

b. The comprehensive stroke center has a written research protocol for current stroke research.

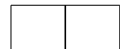
**Requirements Specific to Comprehensive Stroke Center Certification**

a. The comprehensive stroke center currently participates in patient-centered stroke research that is approved by the Institutional Review Board.

Note: Patient-centered research refers to research focusing on clinical patient studies. Participating solely in an audited registry for stroke data and measure outcomes, laboratory-based, or humanitarian used device (HUD) research does not meet this requirement.

b. The comprehensive stroke center has a written research protocol for current stroke research.

6. The program has a process to provide emergency/urgent care.



**Requirements Specific to Comprehensive Stroke Center Certification**

a. The comprehensive stroke center has protocols or processes to meet the concurrently emergent needs of multiple complex stroke patients, including assessment and treatment.

Note: These protocols or processes should detail the organization's plan on how it would meet the emergent needs of multiple complex stroke patients; it does not require two teams of practitioners available 24 hours a day, 7 days a week.

b. Emergency department licensed independent practitioners have 24-hour access to a timely, informed consultation about the use of IV thrombolytic therapy, which is obtained from a physician privileged in the diagnosis and treatment of ischemic stroke.

Note: For the purpose of The Joint Commission's Comprehensive Stroke Center Certification, an informed consultation includes bedside consultation or telemedicine consultation from a privileged physician.

**Requirements Specific to Comprehensive Stroke Center Certification**

a. The comprehensive stroke center has physicians or other licensed practitioners knowledgeable in the diagnosis and treatment of stroke who are responsible for responding to patients with an acute stroke 24 hours a day, 7 days a week.

b. The program has written documentation of the process, including expected response time parameters that are used to notify the designated physicians or other licensed practitioners who respond to patients with an acute stroke.

Note: The program develops acute stroke response time goals in alignment with current clinical practice guidelines and evidence-based practice.

c. The comprehensive stroke center has protocols or processes to concurrently meet the emergent needs of multiple complex stroke patients, including assessment and treatment.

Note: These protocols or processes should detail the comprehensive stroke center's plan on how it would meet the emergent needs of multiple complex stroke patients; it does not require two teams of physicians or other licensed practitioners available 24 hours a day, 7 days a week.

7. The program provides the number and types of practitioners needed to deliver or facilitate the delivery of care, treatment, and services.

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**Requirements Specific to Comprehensive Stroke Center Certification**

a. The comprehensive stroke center has a written call schedule for attending physicians with expertise in critical care and cerebrovascular disease providing availability 24 hours a day, 7 days a week.

~~b. The comprehensive stroke center demonstrates there are attending physicians or residents with expertise in critical care and cerebrovascular disease available 24 hours a day, 7 days a week.~~

c. The comprehensive stroke center director or designee is available 24 hours a day, 7 days a week.

d. The comprehensive stroke center is required to have the following practitioners and staff members available 24 hours a day, 7 days a week:

- Emergency physicians
- Neurointerventionalist
- Neuroradiologist, or diagnostic radiologist with complex stroke experience
- Neurologist or other physician with experience in evaluation of computed tomography (CT) and magnetic resonance imaging (MRI) of the brain
- Neurosurgeons with expertise in cerebrovascular surgery

~~Note: The neurosurgeon cannot be concurrently on call at any other hospital. If the neurosurgeon is covering another service(s) in the hospital, there is a written plan for the backup of complex stroke patients.~~

- Surgeons with expertise in carotid endarterectomy
- Certified radiology and MRI technologists
- At least one endovascular catheterization laboratory technician and one endovascular registered nurse

e. Surgeons, neurosurgeons, and other neurosurgical staff are available on site

Key: **D** indicates that documentation is required; **R** indicates an identified risk area;



within 30 minutes to perform and support the performance of emergent neurosurgical procedures 24 hours a day, 7 days a week.

f. In addition to the neurointerventionalist, one or more physicians with cerebrovascular experience are to be available by phone within 30 minutes and available on site within 45 minutes, 24 hours a day, 7 days a week.

g. Physicians with neurocritical care privileges provide on-site, 24-hour care to patients in the neurointensive care unit or designated intensive care beds used for the care of complex stroke patients.

~~Note 1: Fellows with neurocritical care and cerebrovascular experience are acceptable for meeting this requirement. In addition, residents with neurocritical care and cerebrovascular experience, as determined and documented by the director of the residency program and medical director of the comprehensive stroke center, are acceptable for meeting this requirement.~~

~~Note 2: Advanced practice nurses (APNs) or physician assistants (PAs) with neurocritical care and cerebrovascular experience are acceptable for meeting this requirement as an alternative to physicians, when the following conditions are met:~~

~~– APN or PA has additional education in neurocritical care and cerebrovascular care and has a minimum level of experience, as determined by the organization.~~

~~– Physicians with neurology and critical care experience are available for clinical backup 24 hours a day, 7 days a week.~~

~~– Physicians with endovascular and critical care experience are available for clinical backup 24 hours a day, 7 days a week.~~

~~Note 3: Training in cerebrovascular and neurocritical care can be demonstrated through completion of a comprehensive educational program focusing on neurological emergencies. One example of this is Emergency Neurological Life Support (ENLS) certification or equivalent for providers covering neurointensive care beds.~~

h. Physical therapy and occupational therapy practitioners are available six days a week, and on call the seventh day, to perform patient assessments during the acute stroke phase.

i. One or more speech language pathologists who are qualified to perform patient swallowing function assessments during the acute stroke phase are available seven days a week.

~~Note: Other practitioners, such as occupational therapy practitioners, are acceptable for meeting this requirement as determined by the organization. For more information, refer to Human Resources (HR) Standards HR.01.02.01 and HR.01.06.01 in the Hospital E-dition® or the Comprehensive Accreditation Manual for Hospitals.~~

j. Speech language pathologists, physical therapy practitioners, and occupational therapy practitioners in leadership positions have master's degrees or the knowledge and skills associated with an advanced degree.

k. The comprehensive stroke center has one or more advanced practice nurses (APNs) who do the following:

- Support delivery of evidence-based acute stroke assessment and management
- ~~– Provide expert nursing consultation and practice oversight~~
- ~~– Develop and deliver acute stroke continuing education programs~~
- Participate in performance improvement processes
- Participate in comprehensive stroke center research

~~Note: This requirement is applicable to APNs who are employed by the hospital.~~

l. For comprehensive stroke centers that choose to use physician assistants (PA),



the PA does the following:

- Supports delivery of evidence-based acute stroke assessment and management
- Develops and delivers acute stroke continuing education programs
- Participates in performance improvement processes

Note: This requirement is applicable to PAs who are employed by the hospital.

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#### ***Requirements Specific to Comprehensive Stroke Center Certification***

a. The comprehensive stroke center has a written call schedule for attending physicians with expertise in critical care and cerebrovascular disease providing availability 24 hours a day, 7 days a week.

b. The comprehensive stroke center director or designee is available 24 hours a day, 7 days a week.

c. The comprehensive stroke center is required to have the following physicians, other licensed practitioners, and staff members available 24 hours a day, 7 days a week:

- Emergency physicians
- Board certified/eligible vascular neurologist(s)
- Intensivist(s)
- Neurointerventionalist(s)
- Neuroradiologist or diagnostic radiologist with experience in diagnosing patients with acute stroke
- Certified radiology and magnetic resonance imaging (MRI) technologists
- Endovascular catheterization laboratory technician(s)
- Endovascular registered nurse(s)
- Neurosurgeons with expertise in cerebrovascular surgery
- Surgeons with expertise in carotid procedures

d. Surgeons, neurosurgeons, and other neurosurgical staff are available on site within 30 minutes to perform and support the performance of emergent neurosurgical procedures 24 hours a day, 7 days a week.

e. In addition to the neurointerventionalist, one or more physicians with cerebrovascular experience are available by phone within 20 minutes and available on site within 30 minutes, 24 hours a day, 7 days a week.

f. Physicians with neurocritical care privileges provide on-site, 24-hour care to patients in the neurointensive care unit or designated intensive care beds used for the care of complex stroke patients.

Note: The intensivist, in conjunction with the program medical director determine who is competent to provide on-site neurocritical care 24 hours a day, 7 days a week to complex stroke patients in accordance with applicable law and regulation. There is written documentation of initial and ongoing competency, as determined by the organization. If advanced practice providers are utilized to meet this requirement there are physicians available for clinical backup 24 hours a day, 7 days a week either in-person, by phone, or via telemedicine.

g. Qualified licensed practitioners provide physical therapy, occupational therapy, speech therapy, and swallowing function assessments in

accordance with applicable state and federal law and regulation and organization policy.

h. Speech-language pathologists, physical therapy practitioners, and occupational therapy practitioners in leadership positions have master’s degrees or have demonstrated the knowledge and skills associated with an advanced degree.

i. The comprehensive stroke center has one or more advanced practice providers (APPs) who do the following:

- Support delivery of evidence-based acute stroke assessment and management, including consultation and practice oversight
- Collaborate with program leadership to develop and disseminate acute stroke continuing education programs
- Participate in performance improvement processes
- Participate in comprehensive stroke center research

Note: Unless otherwise noted, availability of licensed practitioners can be demonstrated as on-site, on-call, or available remotely to meet patients’ needs.

## DSPR.06

The program has current reference and resource materials.

### Element(s) of Performance for DSPR.06

1. Practitioners have access to reference materials, including clinical practice guidelines, in either hard copy or electronic format.

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#### ***Requirement Specific to Comprehensive Stroke Center Certification***

a. Protocols and care paths (preprinted or electronic documents) are available in the emergency department, acute care areas, and stroke unit for the acute assessment and treatment of patients with ischemic or hemorrhagic stroke.

#### ***Requirement Specific to Comprehensive Stroke Center Certification***

a. Protocols, clinical practice guidelines, and orders (preprinted or electronic documents) are available in the emergency department, acute care areas, and stroke unit for the acute assessment and treatment of patients with ischemic or hemorrhagic stroke.

## Delivering or Facilitating Clinical Care (DSDf) Chapter

### DSDf.01

Key: **D** indicates that documentation is required;

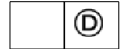
**R** indicates an identified risk area;

Practitioners are qualified and competent.

**Element(s) of Performance for DSD.F.01**

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1. Practitioners have education, experience, training, and/or certification consistent with the program's scope of services, goals and objectives, and the care provided.



**Requirements Specific to Comprehensive Stroke Center Certification**

a. Rehabilitation services are directed by a physician with expertise and experience in neurorehabilitation. Examples of such physicians include the following:

- Physiatrist
- Neurologist with neurorehabilitation expertise

b. Emergency department practitioners demonstrate knowledge of IV thrombolytic therapy protocols for acute stroke, including the following:

- Treatment during the first three hours after the patient was last known to be well
- Indications for use of IV thrombolytic therapy
- Contraindications to IV thrombolytic therapy
- Education to be provided to patients and families regarding the risks and benefits of IV thrombolytic therapy
- Signs and symptoms of neurological deterioration after IV thrombolytic therapy

c. Eighty percent of emergency department practitioners can do the following:

- Demonstrate knowledge of the communication system used with inbound EMS
- Demonstrate knowledge of the location and application of stroke-related protocols
- Demonstrate knowledge of the care of patients with acute stroke, including pathophysiology, presentation, assessment, diagnostics, and treatment
- Demonstrate competency in the diagnosis of acute stroke
- Demonstrate utilization of protocols for stroke triage
- Demonstrate competency in treatment options for acute stroke
- Utilize protocols for the monitoring of an acute stroke patient

d. The comprehensive stroke center's advanced practice nurses have focused expertise in comprehensive stroke care and care in stroke intensive care units (ICU).

e. The comprehensive stroke center has the following practitioners and staff members providing care as indicated:

- Pharmacist with expertise in neurology/stroke care
- Data collection personnel
- Nurse case managers and social workers with expertise in neurology/stroke care
- Nurse case managers and social workers with expertise in care coordination
- Nurse case managers and social workers with knowledge of the different levels of rehabilitation and expertise in making referrals to the appropriate level of rehabilitation (for example, acute, subacute, outpatient)
- Nurse case managers and social workers with knowledge of community resources (for example, respite care, Meals on Wheels, counseling services)

f. Nurses working in the emergency department, stroke unit, ICU that contains the dedicated neurointensive care beds, endovascular catheterization laboratory and rehabilitation unit are educated and experienced in the provision of evidence-based comprehensive stroke nursing care.

Note: Stroke units can be defined and implemented in a variety of ways. The stroke unit does not have to be a specific enclosed area with beds designated only for acute stroke patients, but it will be a specified unit to which most stroke patients are admitted.

g. Registered nurses working in the stroke unit or the ICU that contains dedicated neurointensive care beds for complex stroke patients are knowledgeable about the stroke scale\* used in the organization.

Footnote \*: An example of a stroke scale is the National Institutes of Health Stroke Scale (NIHSS).

***Requirements Specific to Comprehensive Stroke Center Certification***

**a. Physicians and other licensed practitioners demonstrate knowledge and understanding of the program’s protocols related to care, treatment, and services for stroke patients.**

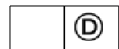
**b. The comprehensive stroke center’s advanced practice providers have focused expertise in comprehensive neuroscience, stroke care, and care in intensive care units (ICU).**

**c. The comprehensive stroke center has the following licensed practitioners and staff members providing care as indicated by patient need:**

- Pharmacist with expertise in neurology and stroke care
- Data collection personnel
- Nurse case managers and social workers with expertise in neurology and stroke care
- Nurse case managers and social workers with expertise in care coordination
- Nurse case managers and social workers with knowledge of the different levels of rehabilitation and expertise in making referrals to the appropriate level of rehabilitation (for example, acute, subacute, outpatient)
- Nurse case managers and social workers with knowledge of community resources (for example, respite care, Meals on Wheels, counseling services)

**d. Registered nurses who care for stroke patients demonstrate comprehension of the stroke scale(s) used in the primary stroke center.**

4. Orientation provides information and necessary training pertinent to the practitioner’s responsibilities. Completion of the orientation is documented.



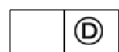
***Requirement Specific to Comprehensive Stroke Center Certification***

~~a. The comprehensive stroke center provides orientation on evidence-based care for complex stroke patients to nurses providing care in the emergency department, radiology department, neurointensive care beds, catheterization laboratory, patient care units, and rehabilitation unit.~~

***Requirement Specific to Comprehensive Stroke Center Certification***

**a. The program provides initial orientation, education, and training that is pertinent to the program-specific stroke policies and procedures and individual licensed practitioners roles and responsibilities.**

5. The program assesses practitioner competence on an ongoing basis. This assessment is documented.



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**Requirement Specific to Comprehensive Stroke Center Certification**

a. RNs that staff the dedicated neurointensive care beds for complex stroke patients demonstrate expertise in the following:

- Neurologic and cardiovascular assessment
  - Nursing assessment and management of ventriculostomy devices (external ventricular pressure monitoring and drainage)
  - Treatment of intracranial pressure
  - Nursing care of hemorrhagic stroke patients (intracerebral hemorrhage and subarachnoid hemorrhage)
  - Nursing care of patients receiving intravenous thrombolytic therapy and intra-arterial thrombolytic therapy
  - Management of malignant ischemic stroke with craniectomy
  - Use of thermoregulation protocols
  - Use of intravenous vasopressor, antihypertensive, and positive inotropic agents
  - Methods for systemic and intracranial hemodynamic monitoring
  - Methods for invasive and noninvasive ventilatory management
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7. Ongoing in-service and other education and training activities are relevant to the program's scope of services.

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**Requirement Specific to Comprehensive Stroke Center Certification**

a. The comprehensive stroke center requires specific training and education for physicians and staff members, including:

**Medical Director**

–The medical director of the intensive care unit (ICU) that contains the dedicated neurointensive care beds for complex stroke patients attends eight or more hours of education per year on cerebrovascular disease and/or acute stroke care.

**Emergency Department Staff**

–Nurses working in the emergency department, as identified by the organization, are required to complete two hours of education per year on cerebrovascular disease, including acute stroke care.

–Other emergency department staff members, as identified by the organization, attend two hours of education per year on cerebrovascular disease, including acute stroke care.

Note: Examples of other emergency staff members may include pharmacists, respiratory therapists, patient care technicians, or nursing assistants. This requirement does not include emergency physicians. For more information, refer to Medical Staff (MS) Standard MS.12.01.01, EP 5 in the Hospital E-dition® or the Comprehensive Accreditation Manual for Hospitals.

**Nursing Staff (other than the ED)**

–Nurses providing comprehensive stroke care, as identified by the organization, are required to attend a minimum of eight hours of education per year on cerebrovascular disease and stroke.

Note: Nurses providing stroke care include nurses working in the stroke unit, ICU that contains the dedicated neurointensive care beds for complex stroke patients, endovascular catheterization laboratory, patient care units, and rehabilitation unit.

–A minimum of one nurse providing comprehensive stroke care, as identified by the organization, is required to attend one regional or national meeting/seminar every other year related to comprehensive stroke care.

Note 1: This could include a nurse providing care in the emergency department, stroke unit, ICU that contains the dedicated neurointensive care beds, endovascular catheterization laboratory, and rehabilitation unit.

Note 2: Stroke units can be defined and implemented in a variety of ways. The stroke unit does not have to be a specific enclosed area with beds designated only for acute stroke patients, but it will be a specified unit to which most stroke patients are admitted.

- The nurse(s) attending the regional or national meetings/seminars provides education to the organization's comprehensive stroke center nurses and other professional staff.

**Core Stroke Team**

–Members of the core stroke team receive at least eight hours annually of continuing education or other equivalent educational activity that is determined appropriate by the comprehensive stroke center medical director and appropriate to the practitioners' level of responsibility.

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***Requirement Specific to Comprehensive Stroke Center Certification***

**a. The program provides ongoing education and training activities that are pertinent to the licensed practitioners' roles and responsibilities when staff responsibilities change; when new or revised policies, procedures, or guidelines are implemented; and/or other intervals defined by the program.**

**b. A minimum of one nurse providing comprehensive stroke care, as identified by the comprehensive stroke center, attends one regional or national meeting/seminar every other year related to comprehensive stroke care.**

**- The nurse(s) attending the regional or national meetings/seminars provides education to the comprehensive stroke center's nurses and other professional staff.**

**c. Other staff in the organization who interact with stroke patients receive training on the recognition of clinical signs and symptoms that require timely notification according to institution-specific policy and protocol.**

**DSDF.02**

The program develops a standardized process originating in clinical practice guidelines (CPGs) or evidence-based practice to deliver or facilitate the delivery of clinical care.

**Element(s) of Performance for DSDF.02**

1. The selected clinical practice guidelines are evaluated for their relevance to the target population.

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***Requirement Specific to Comprehensive Stroke Center Certification***

**a. Protocols for emergency care demonstrate that the comprehensive stroke center does the following:**

**-Addresses emergency management care, including rapid assessment, rapid communication between emergency department and emergency medical services (EMS) staff, and medical stabilization of the patient en route to the emergency department**

**-Addresses procedures for the emergency department to initiate the stroke team**

**-Reviews emergency department/EMS protocols at least annually**

2. The selected clinical practice guidelines are based on evidence that is determined to be current by the clinical leaders.

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**(R)** indicates an identified risk area;

**Requirements Specific to Comprehensive Stroke Center Certification**

a. Protocols for IV thrombolytic therapy, when indicated, are reflected in the order sets or pathways and utilized in the acute care of the stroke patient.

b. Time parameters for stroke workup are included in a stroke assessment protocol or the emergency department stroke protocol.

c. Protocols for care demonstrate that the comprehensive stroke center addresses the following:

- Evidence-based endovascular procedures including exclusion criteria
- Evidence-based neurosurgical procedures for clipping of aneurysms
- The circumstances under which the hospital would not accept transferred patients for neurosurgical and cerebrovascular surgery

Note: These circumstances should include when an organization makes the decision to be on “bypass,” secondary to constrained resources.

~~The comprehensive stroke center collaborates with emergency medical services (EMS) providers to make certain of the following:~~

~~The program has access to treatment protocols utilized by EMS providers and pre-hospital personnel for emergency stroke care.~~

~~The program has stroke patient destination protocols utilized by EMS providers that address transport of stroke patients to primary stroke centers, in accordance with law and regulation.~~

d. Protocols for care, treatment, and services demonstrate that the comprehensive stroke center does the following:

- Administers intra-arterial fibrinolytics according to current evidence-based practices and research

- Provides endovascular recanalization according to current evidence-based practices and research

~~Addresses the initiation of endovascular procedures~~

e. Nursing care delivery must be supported by evidence-based practice policies and protocols.

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***Requirements Specific to Comprehensive Stroke Center Certification***

**a. Protocols for emergency care demonstrate that the comprehensive stroke center does the following:**

**- Addresses emergency management care, including rapid assessment, rapid communication between emergency department and emergency medical services (EMS) staff, and medical stabilization of the patient en route to the emergency department**

**- Addresses procedures for the emergency department to initiate the stroke team**

**b. Protocols for IV thrombolytic therapy, when indicated, are reflected in the orders or pathways and utilized in the acute care of the stroke patient.**

**c. Time parameters for stroke workup are included in a stroke assessment protocol or the emergency department stroke protocol.**

**d. Protocols for care demonstrate that the comprehensive stroke center addresses the following:**

**- Evidence-based endovascular procedures, including inclusion and exclusion criteria**

**- Evidence-based neurosurgical procedures for the treatment of aneurysms using an FDA-approved device**

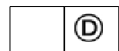
**- The circumstances under which the hospital would not accept transferred patients for neurosurgical and cerebrovascular surgery**

**- Administration of intra-arterial fibrinolytics according to current evidence-based practices and research**

**- Provision of endovascular recanalization according to current evidence-based practices and research**

**e. The dysphagia screen used by the program is a validated tool approved by the interdisciplinary team.**

3. The program leader(s) and practitioners review and approve clinical practice guidelines prior to implementation.

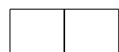


***Requirements Specific to Comprehensive Stroke Center Certification***

**a. The interdisciplinary team reviews clinical practice guidelines and current evidence at least annually and revises protocols for stroke care to remain in alignment.**

**Note: Current evidence includes, but is not limited to clinical trials, current research, and scientific statements.**

4. Practitioners are educated about clinical practice guidelines and their use.



Key: **D** indicates that documentation is required;

**R** indicates an identified risk area;

***Requirement Specific to Comprehensive Stroke Center Certification***

a. The organization demonstrates that 80% of emergency department practitioners are educated in the comprehensive stroke center acute stroke protocol(s).

5. The program demonstrates evidence that it is following the clinical practice guidelines when providing care, treatment, and services.

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***Requirements Specific to Comprehensive Stroke Center Certification***

a. The organization's formulary or medication list must include an IV thrombolytic therapy medication approved by the US Food and Drug Administration for the treatment of ischemic stroke.

b. Protocols demonstrate that the stroke center can provide IV thrombolytic therapy medication approved by the US Food and Drug Administration for the treatment of ischemic stroke in accordance with indications and package inserts. For example, for institutions that deliver IV thrombolytic therapy, a protocol that reflects the three-hour window for IV thrombolytic therapy is available. Protocol is de novo or adapted from extant resources and published guidelines.

***Requirements Specific to Comprehensive Stroke Center Certification***

a. The comprehensive stroke center's formulary or medication list must include an IV thrombolytic therapy for the treatment of acute ischemic stroke. **Note: If a program maintains more than one IV thrombolytic on formulary for the treatment of acute ischemic stroke, written protocols are in place that define medication selection and administration.**

**DSD.F.03**

The program is implemented through the use of clinical practice guidelines selected to meet the patient's needs.

**Element(s) of Performance for DSD.F.03**

1. The program establishes an interdisciplinary team based on the patient's assessed needs and direction from clinical practice guidelines.

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**Requirement Specific to Comprehensive Stroke Center Certification**

- a. Protocols for care, treatment, and services demonstrate that the comprehensive stroke center addresses the following:
- Interdisciplinary team members, as identified by the organization, who are to evaluate the patient before and after surgery
  - Interdisciplinary team members, as identified by the organization, who are to evaluate the patient before and after endovascular procedures

**Requirement Specific to Comprehensive Stroke Center Certification**

- a. Protocols for care, treatment, and services demonstrate that the comprehensive stroke center addresses the following:
- Interdisciplinary team members, as identified by the **comprehensive stroke center**, who are to evaluate the patient before and after surgery
  - Interdisciplinary team members, as identified by the **comprehensive stroke center**, who are to evaluate the patient before and after endovascular procedures

2. The assessment(s) and reassessment(s) are completed according to the patient's needs and clinical practice guidelines.

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**Requirements Specific to Comprehensive Stroke Center Certification**

- a. Use of the assessment protocol is reflected in the order sets, pathways, or medical records.
- b. Laboratory tests, electrocardiogram (ECG), and chest x-ray are completed within 45 minutes of patient presentation with stroke symptoms, if ordered by the practitioner.
- c. The stroke unit or designated beds has the capability of continuously and simultaneously monitoring the following:
- Blood pressure
  - Heart rate and rhythm, with automatic arrhythmia detection
  - Respirations
  - Oxygenation via pulse oximetry or another modality

**Requirements Specific to Comprehensive Stroke Center Certification**

**a. The National Institutes of Health Stroke Scale (NIHSS) is used in the assessment of patients with acute stroke.**

**b. Ongoing assessment(s) of the patient is completed in accordance with the comprehensive stroke center's acute stroke protocols.**

**c. A blood glucose level is completed for any patient presenting with stroke symptoms.**

**d. Laboratory and other diagnostic tests do not delay the administration of IV thrombolytic therapy**

**Note: Laboratory tests may include a complete blood cell count with platelet count, coagulation studies (prothrombin time, International Normalized Ratio), blood chemistries, and troponin.**

**e. The comprehensive stroke center has a process to notify medical staff and other personnel about the deterioration of a stroke patient, which may include, but is not limited to, changes in vital signs and neurological status.**

**f. All patients exhibiting stroke symptoms are screened for dysphagia prior to receiving any oral intake of medication, fluids, or food.**

**g. The stroke unit or designated beds have the capability to continuously monitor the following:**

- Blood pressure
- Heart rate and rhythm, with automatic arrhythmia detection
- Respirations
- Oxygenation via pulse oximetry or another modality

**h. The comprehensive stroke center provides for early assessment of rehabilitation needs for all patients admitted with stroke.**

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3. The program implements care, treatment, and services based on the patient's assessed needs.

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**Requirements Specific to Comprehensive Stroke Center Certification**

a. Documentation indicates that on a 24 hours a day, 7 days a week basis, 80% of acute stroke patients have a diagnostic brain image completed (and results reported to or reviewed by a member of the stroke team) within 45 minutes of it being ordered, when clinically indicated (in acute hemorrhagic or ischemic stroke resuscitation candidates).

Note: The brain image can be obtained by computed tomography (CT) or magnetic resonance imaging (MRI) and needs to definitively rule out or detect intracranial hemorrhage, or other causes of the stroke syndrome. The imaging needs to be available on site 24 hours a day/365 days a year (barring short-term failure, whereby the hospital should divert potential acute stroke patients). However, review of the images does not have to be done on-site. Evaluation can be performed off site by telemedicine technology.

b. The completion of laboratory tests, electrocardiogram (ECG), and chest x-ray should not delay the administration of IV thrombolytic therapy.

c. Rehabilitation therapy is initiated as indicated by the patient assessment and may include speech-language pathology services, physical therapy, occupational therapy, or any combination of these therapies.

**Requirements Specific to Comprehensive Stroke Center Certification**

a. A telemedicine link is initiated within 20 minutes of the emergency physician or acute stroke team determining it is necessary or within the time frame specified in the contract, whichever is sooner.

b. Rehabilitation therapy is initiated as indicated by the patient assessment and may include speech-language pathology services, physical therapy, occupational therapy, or any combination of these therapies.

**DSD.F.04**

The program develops a plan of care that is based on the patient's assessed needs.

**Element(s) of Performance for DSD.F.04**

4. The individualized plan of care reflects coordination of care with other programs, as determined by patient comorbidities.

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**Requirements Specific to Comprehensive Stroke Center Certification**

- a. Based on prognosis and individual needs, patients are referred for palliative care services when clinically indicated.
- ~~b. Based on prognosis and individual needs, patients are referred for hospice/end-of-life care services when clinically indicated.~~
- ~~c. Based on prognosis and individual patient and family needs, patients are referred to community resources to facilitate re-entry into the community, such as the following examples:~~
  - Outpatient therapy, including physical therapy, occupational therapy, and speech-language treatment
  - Support groups
  - Social services
  - Vocational rehabilitation
  - Behavioral health services
  - Family therapy services
  - Respite care services

**Requirements Specific to Comprehensive Stroke Center Certification**

- a. Based on prognosis and the patient's needs and preferences, patients are referred to palliative care, hospice, or end-of-life services when indicated.
- b. Based on prognosis and the patient's and family's needs and preferences, patients are referred to community resources to facilitate reentry into the community, such as the following examples:
  - Outpatient therapy, including physical therapy, occupational therapy, and speech-language pathology services
  - Support groups
  - Social services
  - Vocational rehabilitation
  - Behavioral health services
  - Family therapy services
  - Respite care services

**DSD.F.05**

The program manages comorbidities and concurrently occurring conditions and/or communicates the necessary information to manage these conditions to other practitioners.

**Element(s) of Performance for DSD.F.05**

1. The program coordinates care for patients with multiple health needs.

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Key: **(D)** indicates that documentation is required;

**(R)** indicates an identified risk area;

**Requirements Specific to Comprehensive Stroke Center Certification**

- a. Written protocols for care related to patient referrals address the following:
- Processes for receiving transfers
  - Processes for transferring patients to another hospital/facility
  - Time parameters and transfer procedures
- b. The organization evaluates the receiving organization's ability to meet the individual patient's needs.

**Requirement Specific to Comprehensive Stroke Center Certification**

- a. Protocols for care related to patient referrals demonstrate that the comprehensive stroke center does the following:
- **Addresses processes for receiving transfers**
  - **Addresses processes for transferring patients to another facility**
  - **Evaluates the receiving organization's ability to meet the patient's and family's needs**

**DSD.F.06**

The program initiates discharge planning and facilitates arrangements for subsequent care, treatment, and services to achieve mutually agreed upon patient goals.

**Element(s) of Performance for DSD.F.06**

1. In preparation for discharge, the program discusses and plans with the patient and family the care, treatment, and services that are needed in order to achieve the mutually agreed upon self-management plan and goals.

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**Requirement Specific to Comprehensive Stroke Center Certification**

- a. ~~Post-hospital~~ care is coordinated based on the assessment of the patient's and family's identified needs such as the following:
- Acute rehabilitation
  - Long term acute care
  - Skilled nursing/subacute care
  - Outpatient services
  - Home care
  - Respite services
  - Palliative care

**Requirement Specific to Comprehensive Stroke Center Certification**

a. Posthospital care is coordinated based on the assessment of the patient's and family's identified needs, such as the following:

- Acute rehabilitation
- Long term acute care
- Skilled nursing/subacute care
- Outpatient services
- Home care
- Respite services
- Palliative care

2. In preparation for discharge, the program considers the patient's anticipated needs and goals when identifying the setting and practitioners for continuing care, treatment, and services.

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~~**Requirement Specific to Comprehensive Stroke Center Certification**~~

~~a. Procedures related to transitions of care demonstrate that the comprehensive stroke center addresses the following:~~

- ~~- Transferring a patient internally~~

~~Note: If the hospital has an organizationwide policy, it will meet the intent of this requirement.~~

- ~~- Transferring a patient to another organization~~

- ~~- Making referrals when the comprehensive stroke center does not provide post-acute, inpatient rehabilitation services~~

4. The program provides education and serves as a resource, as needed, to practitioners who are assuming responsibility for the patient's continued care, treatment, and services.

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**Requirement Specific to Comprehensive Stroke Center Certification**

a. Licensed independent practitioners and staff members, as identified by the organization, prepare and present two or more educational courses per year for internal staff or for individuals external to the comprehensive stroke center.

**Requirements Specific to Comprehensive Stroke Center Certification**

a. Physicians, licensed practitioners, and other staff members, as identified by the comprehensive stroke center, prepare and present two or more educational courses per year for internal staff or for individuals external to the comprehensive stroke center.

b. The comprehensive stroke center provides at least two community education activities per year that focus on stroke prevention and care.

Supporting Self-Management (DSSE) Chapter

**DSSE.01**

The program involves patients in making decisions about managing their disease or condition.

**Element(s) of Performance for DSSE.01**

1. The program involves patients in decisions about their care, treatment, and services.

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**Requirements Specific to Comprehensive Stroke Center Certification**

- a. The comprehensive stroke center ~~is required to obtain~~ informed consent from patients.
- b. The comprehensive stroke center's written informed consent policy identifies the specific stroke interventions that require informed consent, in accordance with law and regulation. The following are discussed with the patient in the informed consent process:
  - ~~The patient's~~ proposed stroke interventions and care-
  - Potential benefits, risks, and side effects of the ~~patient's~~ proposed stroke interventions and care; the likelihood of the patient achieving their goals; and any potential problems that might occur as a result of the intervention-
  - Reasonable alternatives to the patient's proposed stroke interventions and care.
 The discussion encompasses risks, benefits, and side effects related to the alternatives and the risks related to not receiving the proposed stroke interventions and care.
- c. The comprehensive stroke center's written policy describes how informed consent is documented in the medical record.
- d. The patient and family participate in planning ~~post-hospital~~ care.

**Requirements Specific to Comprehensive Stroke Center Certification**

- a. The comprehensive stroke center obtains informed consent from patients when necessary.
- b. The comprehensive stroke center's written informed consent policy identifies the specific stroke interventions that require informed consent, in accordance with law and regulation. The following are discussed with the patient in the informed consent process:
  - Proposed stroke interventions and care for the patient
  - Potential benefits, risks, and side effects of the proposed stroke interventions and care; the likelihood of the patient achieving their goals; and any potential problems that might occur as a result of the intervention
  - Reasonable alternatives to the proposed stroke interventions and care. The discussion encompasses risks, benefits, and side effects related to the alternatives and the risks related to not receiving the proposed stroke interventions and care
- c. The comprehensive stroke center's written policy describes how informed consent is documented in the medical record.
- d. The patient and family participate in planning posthospital care.

- 3. The program assesses the family and/or caregiver's readiness, willingness, and ability to provide or support self-management activities when needed.

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**Requirements Specific to Comprehensive Stroke Center Certification**

- a. The patient's family members, including the primary caregiver, have been assessed to determine their readiness to provide care to the patient.
- ~~b. For patients returning home, the family members receive a comprehensive assessment to determine their skills, capacities, and resources to provide post-hospital care.~~

**Requirement Specific to Comprehensive Stroke Center Certification**

- a. For patients returning home, the family members are assessed to determine their skills, capacities, and resources to provide posthospital care.

- 5. Patients and practitioners mutually agree upon goals.

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**Requirement Specific to Comprehensive Stroke Center Certification**

- ~~a. Goals are established for post-hospital care.~~

**DSSE.03**

The program addresses the patient's education needs.

**Element(s) of Performance for DSSE.03**

5. The program addresses the education needs of the patient regarding their disease or condition and care, treatment, and services.

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**Requirements Specific to Comprehensive Stroke Center Certification**

- a. For patients returning home, education is provided to the patient and family on post-hospital care.
- b. Education and resources are provided to the patient and family about durable medical equipment (DME), when indicated.
- c. Education and resources are provided to the family about respite care, when indicated.
- d. Financial resource information is provided to the patient and family, when indicated.

**Requirements Specific to Comprehensive Stroke Center Certification**

- a. For patients returning home, education is provided to the patient and family on **posthospital care for the following:**
  - Durable medical equipment, when indicated by patient need
  - Respite care, when indicated by patient need
  - Financial resource information, when indicated by patient need
- b. **The CSC has a process to follow-up with complex stroke patients who were discharged home.**
  - Note 1: The follow-up process may include addressing appointments, medication and therapy compliance, and risk of recurrent stroke including personalized risk factors.**
  - Note 2: Follow-up may be conducted in person, via telemedicine, or via phone consultation.**

Clinical Information Management (DSCT) Chapter

**DSCT.04**

The program shares information with relevant practitioners and/or health care organizations about the patient's disease or condition across the continuum of care.

**Element(s) of Performance for DSCT.04**

2. The program shares information with relevant practitioners and/or health care organizations to facilitate continuation of patient care.

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Key: **D** indicates that documentation is required; **R** indicates an identified risk area;

**Requirement Specific to Comprehensive Stroke Center Certification**

- a. The results of diagnostic imaging and laboratory testing are actively communicated and available to the ordering physician or other licensed practitioner and stroke team as applicable.

**DSCT.05**

The program initiates, maintains, and makes accessible a medical record for every patient.

**Element(s) of Performance for DSCT.05**

- 4. The medical record contains sufficient information to justify the care, treatment, and services provided. □ □

**Requirement Specific to Comprehensive Stroke Center Certification**

- a. Documentation indicates the reason eligible ischemic stroke patients did not receive IV thrombolytic therapy.

**Requirements Specific to Comprehensive Stroke Center Certification**

- a. Documentation indicates the reason potentially eligible ischemic stroke patients did not receive IV thrombolytic therapy.
- b. Documentation indicates the reason potentially eligible ischemic stroke patients did not receive endovascular therapy.

- 5. The medical record contains sufficient information to document the course and results of care, treatment, and services. □ □

**Requirement Specific to Comprehensive Stroke Center Certification**

- a. The comprehensive stroke center has a process for obtaining the emergency medical system records documenting the care provided to the patient during the transfer to the comprehensive stroke center.

**Requirements Specific to Comprehensive Stroke Center Certification**

- a. The comprehensive stroke center has a process for obtaining the emergency medical system records documenting the care provided to the patient during the transfer to the comprehensive stroke center.
- b. The comprehensive stroke center's physicians and other licensed practitioners document all assessments and interventions provided for stroke patients, including date and time, in accordance with the comprehensive stroke center's policy.

Key: **D** indicates that documentation is required;

**R** indicates an identified risk area;



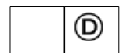
Performance Measurement (DSPM) Chapter

**DSPM.01**

The program has an organized, comprehensive approach to performance improvement.

**Element(s) of Performance for DSPM.01**

1. The program leader(s) identifies goals and sets priorities for improvement in a performance improvement plan.



***Requirements Specific to Comprehensive Stroke Center Certification***

- a. The comprehensive stroke center reviews its process for managing patients who present with stroke to identify opportunities to reduce the time between patient arrival and the administration of IV thrombolytic therapy.
- b. The comprehensive stroke center sets a goal to administer IV thrombolytic therapy as timely and safely as possible, but no longer than 60 minutes after an eligible patient presents for stroke care.
- c. The comprehensive stroke center selects a minimum of two relevant patient care data elements to monitor for internal or external benchmarking each year.

**Note:** This is in addition to stroke core measures and monitoring the performance of IV thrombolytic therapy.

- d. The comprehensive stroke center sets a goal to administer endovascular therapy within 90 minutes for direct arriving patients and within 60 minutes for patients transferred from another facility in 50% or more of eligible acute ischemic stroke patients.

2. The program leader(s) involves the interdisciplinary team and other practitioners across disciplines and/or settings in performance improvement planning and activities.



**Requirements Specific to Comprehensive Stroke Center Certification**

- a. Evidence of specific stroke performance measurement and review by the stroke team and through the hospitalwide performance improvement process exists.
- b. The comprehensive stroke center has an interdisciplinary program-level review, including a peer-review process, that requires the following:
  - Is part of the comprehensive stroke center’s quality improvement process
  - Includes a performance improvement plan when needed
  - Evaluates patient complications from an ischemic or hemorrhagic stroke including the following:
    - Unanticipated death
    - Hemorrhage post-stroke
    - Other severe complications as determined by the organization

Note: An interdisciplinary program-level review is defined as a review at the program level to assess causes of patient adverse outcomes with the aim of decreasing the incidence of such outcomes.

**Requirements Specific to Comprehensive Stroke Center Certification**

- a. The stroke team and comprehensive stroke center’s quality department analyze stroke performance measures.
- b. The comprehensive stroke center has an interdisciplinary program-level review, including a peer-review process, that does the following:
  - Is part of the comprehensive stroke center’s quality improvement process
  - Includes a performance improvement plan when needed
  - Evaluates patient complications from an ischemic or hemorrhagic stroke, including the following:
    - Unanticipated death
    - Symptomatic intracerebral hemorrhage
    - Death due to any cause within 72 hours of an endovascular procedure
    - Other severe complications as determined by the comprehensive stroke center

Note: Endovascular procedures include mechanical thrombectomy and intra-arterial thrombolytic therapy.

- 5. The program collects data related to its target population to identify opportunities for performance improvement.

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**Requirements Specific to Comprehensive Stroke Center Certification**

- a. The comprehensive stroke center demonstrates that care is provided to 20 or more patients per year with a diagnosis of subarachnoid hemorrhage caused by an aneurysm.
- b. The comprehensive stroke center demonstrates that it is capable of treating aneurysms by performing 15 or more endovascular coiling or microsurgical clipping procedures per year.
- c. The comprehensive stroke center monitors annual aneurysm clipping and coiling mortality rates.
- d. The comprehensive stroke center demonstrates that intravenous (IV) thrombolytic therapy is administered 25 or more times per year for eligible patients.  
 Note 1: Providing IV thrombolytic therapy to a total of 50 eligible patients over a two-year period is acceptable.  
 Note 2: IV thrombolytic therapy administered in the following situations can be counted in the requirement of 25 administrations per year:
  - IV thrombolytic therapy ordered and monitored by the comprehensive stroke center via telemedicine with administration occurring at another hospital
  - IV thrombolytic therapy administered by another hospital, which then transferred the patient within 24 hours to the comprehensive stroke center
- e. Documentation exists to reflect tracking of performance measures and indicators.

**Requirement Specific to Comprehensive Stroke Center Certification**

- a. The comprehensive stroke center **has documentation to reflect tracking of performance measures and performance indicators related to care provided that are not included in standardized measures.**

- 6. The program analyzes its performance measurement data to identify opportunities for performance improvement.

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**Requirements Specific to Comprehensive Stroke Center Certification**

- a. The comprehensive stroke center demonstrates a focus on IV thrombolytic therapy in its performance measurement data.
- b. The comprehensive stroke center evaluates IV thrombolytic therapy data through the quality improvement process and by the stroke team.
- c. The comprehensive stroke center monitors a 30-day stroke and death rate following symptomatic carotid endarterectomy (CEA) and carotid arterial stenting (CAS) and demonstrates an aggregate complication rate of less than 6%. Examples of complications include stroke or death.

Note: Clinically silent acute lesions detected on diffusion-weighted magnetic resonance imaging (MRI) should not be included as complications.

- d. The comprehensive stroke center monitors a 30-day stroke and death rate following asymptomatic carotid endarterectomy (CEA) and carotid arterial stenting (CAS), and demonstrates an aggregate complication rate of less than 3%. Examples of complications include stroke or death.

Note: Clinically silent acute lesions detected on diffusion-weighted magnetic resonance imaging (MRI) should not be included as complications.

- e. The comprehensive stroke center demonstrates a 24-hour post-procedure stroke and death rate of less than or equal to 1% for diagnostic catheter angiography.

Note: Clinically silent acute lesions detected on diffusion-weighted magnetic resonance imaging (MRI) should not be included as complications.

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**Requirements Specific to Comprehensive Stroke Center Certification**

- a. The comprehensive stroke center demonstrates a focus on IV thrombolytic therapy in its performance measurement data.

- b. The comprehensive stroke center evaluates IV thrombolytic therapy data through the quality improvement process and by the stroke team.

- c. The comprehensive stroke center monitors a 30-day stroke and death rate following symptomatic carotid endarterectomy (CEA) and carotid arterial procedures (carotid arterial stenting [CAS], transcarotid artery revascularization [TCAR]) and demonstrates an aggregate complication rate of less than 6%. Examples of complications include stroke or death.

Note: Clinically silent acute lesions detected on diffusion-weighted magnetic resonance imaging (MRI) should not be included as complications.

- d. The comprehensive stroke center monitors a 30-day stroke and death rate following asymptomatic carotid endarterectomy (CEA) and carotid arterial procedures (carotid arterial stenting [CAS], transcarotid artery revascularization [TCAR]), and demonstrates an aggregate complication rate of less than 3%. Examples of complications include stroke or death.

Note: Clinically silent acute lesions detected on diffusion-weighted magnetic resonance imaging (MRI) should not be included as complications.

- e. The comprehensive stroke center demonstrates a 24-hour post procedure stroke and death rate of less than or equal to 1% for diagnostic cerebral catheter angiography.

Note: Clinically silent acute lesions detected on diffusion-weighted magnetic resonance imaging (MRI) should not be included as complications.

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**DSPM.03**

The program collects measurement data to evaluate processes and outcomes.

Note: Measurement data must be internally trended over time and may be compared to an external data source for comparative purposes.

**Element(s) of Performance for DSPM.03**

2. The program collects data related to processes and/or outcomes of care.

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***Requirements Specific to Comprehensive Stroke Center Certification***

- a. Written documentation exists for a stroke team notification system and expected response times.

~~Note: A practitioner experienced in the diagnosis and treatment of stroke will be available within 15 minutes by telephone and at the bedside (as per a referring physician's request) of an acute stroke patient within the period designated in the protocol and/or as instructed by the stroke center director. Response time adherence may also be accomplished through telemedicine and/or with a resident or other practitioner in contact with an experienced stroke practitioner within the time designated by the protocol.~~

- ~~b. Evidence of the stroke team log captures the stroke team's response time to acute stroke patients, treatment used, and patient disposition. The log can be captured by written or electronic means and/or may be done retrospectively through chart audits.~~

- c. The program utilizes an audited registry to monitor stroke data and measure outcomes.

Note: See the Glossary for the definition of audited registry.

**Requirements Specific to Comprehensive Stroke Center Certification**

a. Written documentation exists for a stroke team notification system and expected response times.

b. At a minimum, the stroke team log includes the following information for each entry:

- Physician or other licensed practitioner response time to acute stroke patients (Refer to DSPR.05, EP 6 DPDF.03, EP 2a)

- Type(s) of diagnostic tests and acute treatment if used

- Patient diagnosis

- Time from patient arrival to the administration of IV thrombolytic therapy

- Patient complications

- Disposition of the patient (for example, upon admission to the comprehensive stroke center, discharge, transfer to another organization)

Note: The log can be captured by written or electronic means and/or may be done retrospectively through chart audits.

c. The program monitors its IV thrombolytic complications, which include symptomatic intracerebral hemorrhage and serious life-threatening systemic bleeding.

Note 1: Symptomatic intracerebral hemorrhage is defined by clinical deterioration and a brain image indicating parenchymal hematoma, subarachnoid hemorrhage, or intraventricular hemorrhage within 36 hours after the onset of treatment with IV or intraarterial thrombolytic therapy or mechanical endovascular reperfusion along with a physician’s note documenting that the clinical deterioration is due to symptomatic intracerebral hemorrhage.

Note 2: Serious, life-threatening systemic bleeding is defined as bleeding within 36 hours from the administration of IV thrombolytic therapy that required multiple transfusions and was accompanied by a physician’s note attributing IV thrombolytic therapy as the reason for multiple transfusions.

d. The program utilizes an audited registry to monitor stroke data and measure outcomes.

Note: See the Glossary for the definition of audited registry.

4. Data are aggregated at the program level.

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**Requirements Specific to Comprehensive Stroke Center Certification**

a. In patients with ischemic or hemorrhagic stroke, the comprehensive stroke center monitors the rates of cerebral spinal fluid (CSF) infection that occurs after the following:

- Placement of an intracranial pressure transducer or
- Ventriculostomy

Note: CSF infection is defined as the presence of a positive CSF culture in a patient with a CSF pressure monitoring device or external ventricular drain (EVD) if there is no documentation in the medical record stating that the culture results are thought to be the result of a contaminant or some other process, such as a preexisting infection or infection resulting from another surgical procedure.

b. ~~The comprehensive stroke center monitors the percentage of complex stroke patients who were discharged home and received a follow-up phone call by a member of the organization's stroke team within seven days of discharge.~~

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**Requirements Specific to Comprehensive Stroke Center Certification**

a. **In patients with ischemic or hemorrhagic stroke, the comprehensive stroke center monitors the rate of cerebral spinal fluid (CSF) infection that occurs after the following:**

- Placement of an intracranial pressure transducer or**
- Ventriculostomy**

**Note: CSF infection is defined as the presence of a positive CSF culture in a patient with a CSF pressure monitoring device or external ventricular drain (EVD) if there is no documentation in the medical record stating that the culture results are thought to be the result of a contaminant or some other process, such as a preexisting infection or infection resulting from another surgical procedure.**

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