Standards Revisions Related to Stroke Maintenance

**APPLICABLE TO COMPREHENSIVE STROKE CENTERS**

**Effective January 1, 2018**

**Program Management (DSPR)**

**Standard DSPR.1**
The program defines its leadership roles.

**Element of Performance for DSPR.1**

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

*Moved from DSDF.1, EP 1*

**Standard DSPR.5**
The program determines the care, treatment, and services it provides.

**Elements of Performance for DSPR.5**

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

   **Requirements Specific to Comprehensive Stroke Center Certification**
   
a. The organization's formulary or medication list must include an IV thrombolytic therapy medication for ischemic stroke that is approved by the US Food and Drug Administration.
b. The comprehensive stroke center currently participates in patient-centered stroke research that is approved by the Institutional Review Board.

t. Patient-centered research refers to research focusing on clinical patient studies. Participating in a stroke registry or in laboratory-based research does not meet this requirement.

cb. The comprehensive stroke center has a written research protocol for current stroke research.
7. The program provides the number and types of practitioners needed to deliver or facilitate the delivery of care, treatment, and services.

**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 providing care as indicated available 24 hours a day, 7 days a week:

1. Physicians
   - The comprehensive stroke center has the following physicians available 24 hours a day, 7 days a week:
     - i. Emergency physicians
     - ii. Neurointerventionalists
     - iii. Neuroradiologist, or diagnostic radiologist with complex stroke experience
     - iv. Neurologist or other physician with experience in evaluation of computed tomography (CT) and magnetic resonance imaging (MRI) of the brain
     - v. 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.

   - vi. 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 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 dedicated neuro-intensive care beds.

   **Note 1:** Fellow with neurocritical care and cerebrovascular experience are acceptable for meeting this requirement. Additionally, 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:

   - i. APN or PA has additional education in neurocritical care and cerebrovascular care and has a minimum level of experience, as determined by the organization.
   - ii. Physicians with neurology and critical care experience are available for clinical backup 24 hours a day, 7 days a week.
   - iii. Physicians with endovascular and critical care experience are available for clinical backup 24 hours a day, 7 days a week.

2. Imaging Staff
   - Certified radiology and MRI technologists are available 24 hours a day, 7 days a week to perform or assist with the performance of radiological tests and procedures.

3. Endovascular Catheterization Laboratory Staff
   - At least one endovascular catheterization laboratory technician and one endovascular registered nurse are available 24 hours a day, 7 days a week.

4. Rehabilitation Therapies
   The comprehensive stroke center has the following rehabilitation therapists and practitioners available:

   **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 6 days a week, and on call the 7th 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 7 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 Standards HR.01.02.01 and HR.01.06.01 in the Hospital Edition of the Comprehensive Accreditation Manual for Hospitals.
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.

Note: Although not required, other professionals may be hired by the organization to provide other services to complex stroke patients in the comprehensive stroke center. Examples of these other professionals could include psychologists, recreational therapists, or others as needed.

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.

Delivering or Facilitating Clinical Care (DSDF)

Standard DSDF 1

Practitioners are qualified and competent.

Element of Performance for DSDF 1

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

- Critical care neurologist
- Vascular neurosurgeon

ba. The 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

cb. 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 post IV thrombolytic therapy

dc. 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

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

fe. 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)

gf. Nurses working in the emergency department, stroke unit, ICU that contains the dedicated neuro-intensive 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.

hg. Registered nurses working in the stroke unit or the ICU that contains dedicated neuro-intensive care beds for complex stroke patients are knowledgeable about the stroke scale * used in the organization.

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

**Standard DSDF.2**

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.

**Elements of Performance for DSDF.2**

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

**Requirements Specific to Comprehensive Stroke Center Certification**

a. Protocols demonstrate that the stroke center can provide US Food and Drug Administration–approved IV thrombolytic therapy for 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.

ba. 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.

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

dc. 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.

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

- Administers intra-arterial fibrinolitics 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

**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.

*Moved from DSPR.5, EP 1*

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.

*Moved from DSDF.2, EP 2*
Standard DSDF.3
The program is implemented through the use of clinical practice guidelines selected to meet the patient's needs.

Element of Performance for DSDF.3
2. The assessment(s) and reassessment(s) are completed according to the patient's needs and clinical practice guidelines.

*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.

*Moved from DSDF.5, EP 1*

Standard DSDF.4
The program develops a plan of care that is based on the patient's assessed needs.

Elements of Performance for DSDF.4
2. The program individualizes the plan of care for each patient.

*Requirements Specific to Comprehensive Stroke Center Certification*

a. The patient is assessed to identify cognitive decline, depression, and other social issues prior to discharge.

Note: This requirement is not applicable to comatose patients.

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

*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

*Moved from DSDF.5, EP 1*

Standard DSDF.5
The program manages comorbidities and concurrently occurring conditions and/or communicates the necessary information to manage these conditions to other practitioners.

Element of Performance for DSDF.5
1. The program coordinates care for patients with multiple health needs.

*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.

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
Performance Measurement (DSPM)

**Standard DSPM.3**

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 of Performance for DSPM.3**

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

   **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. Documentation indicates the ability to complete and report lab tests in less than 45 minutes from being ordered.

   c. Documentation indicates the ability to perform an electrocardiogram (ECG) and chest x-ray within the same time frame as laboratory testing.

   db. 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.

   ec. The comprehensive stroke center uses a stroke registry or similar data collection tool to monitor the data.