2019
Primary Stroke Centers: Benchmarking Performance
Our mission is to be the valued partner for healthcare organizations committed to improving their quality of care through accreditation standards and continuing education, with a focus on advancing the health and welfare of their communities.

HFAP is a program of AAHHS.

Thanks to Marci Ramahi, CAE, Director, Accreditation and Certification Operations for assembling and analyzing these datasets. Additional thanks to Carol Roesch, MBA, RN, FACHE, for her advocacy of HFAP stroke certification programs and her unflagging support of HFAP-certified hospitals.
Introduction

This is year two of an ongoing effort to:

- Provide benchmarking data for Primary Stroke Centers by placing their performance in a relevant context.
- Support a culture of community, shared learning, and continuous improvement in the stroke programs we serve.
- Establish HFAP-certification as a validated driver of high-quality care for stroke patients.

This report reflects care of stroke patients from January to December 2018.

In addition to acknowledging the commitment and diligence of the stroke coordinators who assemble and submit the data that form the basis of this publication, we appreciate that many took time to give last year’s pilot publication thoughtful review. That valuable feedback has been incorporated throughout this year’s publication and we invite your comments on this year’s report at certification@hfap.org.

Project eligibility

Each participating organization receives the confidential identifier that will allow it to compare its performance with that of other participating stroke programs.

HFAP-certified Primary Stroke Centers are eligible to participate in this annual benchmarking if they:

1. Submit a BAA (business associate agreement) approving use of the organization’s de-identified data by HFAP.

2. Submit the relevant performance data using the HFAP tool. In an effort to simplify reporting and reduce redundancy for certified programs, we accept performance measure data in any format, including Get With The Guidelines®. This reduces paperwork for the stroke center, but adds paperwork on our end, so performance measures that come to us in that format are not reflected in the charts provided this year.
Using the report

On the following pages, you will find each performance metric represented by a bar chart. The metric name and a brief description of what it measures is included, along with an indication of the threshold established by the standard. Data are grouped by the size of the 2018 patient population; under 100, 100 to 300, more than 300.

We’ve added comments that summarize the overall result and, when relevant, included recommendations for improvement based on the best practices of outstanding programs.

Overall, the results demonstrate that HFAP-certified Primary Stroke Centers continue to meet or exceed the benchmarks established by certification standards. Use this data to benchmark and communicate your center’s performance.

**Analyze**

- Identify your organization. Or find the group that represents the size of your annual stroke patient population.
- Compare your performance to that of your peer organizations and the overall group.
- Compare your results with your community needs assessment. *Does your stroke program meet the goals set in that report?*

**Communicate**

- Share this report (and your analysis) with your stroke staff to show how their patient care is reflected in the data.
- Share this report with your Board, medical staff, leadership team, and hospital staff as evidence of the quality care you provide.
- Share this report with your marketing department to encourage active support of your program.
- Share relevant results at your community education events.
SM-1: VTE Prophylaxis (previously SM-9)

**Description of the measure**

This measure addresses patients with a diagnosis of acute ischemic stroke who are assessed to be at risk for VTE and for whom prophylaxis (including anticoagulant medications, sequential compression stockings, and early mobilization) is indicated.

**Comment**

Real-time review of patient interventions related to stroke measures (versus post discharge review of care) may facilitate communication and use of interventions that may otherwise be missed. In hospitals where there may not be a full-time stroke coordinator or on weekends and holidays when the full-time coordinator is not present, the house supervisor and/or discharge planners/pharmacists have been helpful in these reviews.

**Note:** For smaller hospitals, having only one or two fall-outs can significantly affect results.

The benchmark was met by 95% of participating hospitals.
**SM-2: Discharged on Antithrombotic Therapy**  
(previously SM-7)

Description of the measure

This measure addresses ischemic stroke patients prescribed antithrombotic therapy (anti-platelet and anticoagulants) at hospital discharge.

Comment

The benchmark threshold was exceeded by 100% of participating hospitals. Congratulations on an exceptional result!
**SM-3: Anticoagulation Therapy for AF/Flutter**  
*(previously SM-8)*

**Description of the measure**

This measure addresses ischemic stroke patients with a clinical diagnosis of atrial fibrillation/flutter who are prescribed anticoagulation therapy at hospital discharge.

**Comment**

Cardiac monitoring for the first 24 hours is recommended to screen for atrial fibrillation and other potentially serious cardiac arrhythmias that would necessitate cardiac interventions.

The benchmark was met by 95% of participating hospitals.
**SM-4: Thrombolytic Therapy 4.5 Hours**  
(previously SM-5)

**Description of the measure**

This measure addresses acute ischemic stroke patients who arrive at the hospital within 2 hours (120 minutes) of time last known well and for whom IV tPA was initiated at this hospital within 4.5 hours of time last known well.

**Comment**

This measure previously assessed compliance within 3 hours. In January 2018, the AHA issued a revision from 3 hours to 4.5 hours based on research regarding the effectiveness of the time frame for initiating tPA.

The benchmark was exceeded by 100% of participating hospitals.
**SM-5: Antithrombotic Therapy (End of Day 2)**
(previously SM-6)

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**Description of the measure**
This measure addresses ischemic stroke patients administered antithrombotic therapy by the end of hospital day 2. Antithrombotic therapy is defined as medications that include anti-platelets and anticoagulants used in the treatment of ischemic stroke.

**Comment**
This measure was universally exceeded by participating programs.
SM-6: Discharged on Statin Medication
(previously SM-10)

Description of the measure
The measure includes ischemic stroke patients with LDL greater than or equal to 100 mg/dL, or LDL not measured, or who were on a lipid-lowering medication prior to hospital arrival and addresses statin medication prescribed at hospital discharge.

Comment
This measure was met by 100% of participating programs.

Number of Stroke Patients Discharged: MAX 544 | MIN 138
SM-8: Stroke Education (previously SM-11)

Description of the measure

This measure includes ischemic or hemorrhagic stroke patients or their caregivers who were given educational materials during the hospital stay that address all of the following: activation of emergency medical system, need for follow-up after discharge, medications prescribed at discharge, risk factors for stroke, and warning signs and symptoms of stroke.

Comment

Providing stroke education to patients and their caregivers has implications for readmissions. Physician orders for inpatient stroke care that routinely include an order for patient stroke education may help facilitate this intervention. The use of stroke education booklets is extremely useful as they can be tailored to include all the required teaching elements. This does not eliminate the need for individualized patient/patient representative education and documentation that this was completed.

This measure was met by 95% of participating programs.
**SM-10: Assessed for Rehabilitation**
(previously SM-13)

**Description of the measure**

This measure addresses ischemic or hemorrhagic stroke patients who were assessed for rehabilitation services. Initial physical rehabilitation must be conducted by a physical therapist, and as per clinical need assessments, includes occupational therapy or speech and language therapy.

**Comment**

All stroke patients should be provided with a formal assessment of ADLs, functional mobility, and communication abilities. These findings are incorporated into the care transition and discharge planning process.

Making rehabilitation evaluation a part of the stroke inpatient order set may increase compliance with this measure. It can be tailored by the physician to meet the individual needs of the patient. It is recommended that stroke patients receive rehabilitation at an intensity commensurate with anticipated benefit and tolerance but not at the convenience of staff scheduling.

Rehabilitation staff (physical, occupational therapy and speech language) are not required to be in the hospital seven days a week, but there does need to be an on-call (or comparable) system for any days they are not in-house to meet patient needs that may arise. For contracted rehabilitation services, review the times frames for therapist availability.
SM-11: Dysphagia Screening (previously SM-12)

Description of the measure
This measure addresses the number of eligible patients who received dysphagia screening prior to receiving anything by mouth divided by the number of patients with acute stroke symptoms who received anything by mouth. (The dysphagia screen may be performed by RN.)

Comment
This measure was met by all participating stroke programs.
SM-12A: Door-to-Needle Time — 60 Minutes
(previously SM-14)

Description of the measure
This measure addresses acute ischemic stroke patients age 18 years and older receiving intravenous tissue plasminogen activator (tPA) therapy during the hospital stay and having a time from hospital arrival to initiation of thrombolytic therapy administration (door-to-needle) of 60 minutes or less.

Comment
This measure, which has a lower benchmark threshold, was missed by 16% of participating programs.

The benefit of IV alteplase is well established for adult patients with disabling stroke symptoms regardless of age and stroke severity. Because of this proven benefit and the need to expedite treatment, when a patient cannot provide consent (e.g., aphasia, confusion) and a legally authorized representative is not immediately available to provide proxy consent, it is justified to proceed with IV thrombolysis in an otherwise eligible adult patient with disabling AIS.

Because of this standard of care, and the need to provide treatment asap (*time is brain*), many hospitals have elected to drop a specific consent for administration of tPA as this adds to the time and increases reluctance of family consent.
**SM-12B: Door-to-Needle Time — 45 Minutes**

**Description of the measure**

This measure addresses acute ischemic stroke patients age 18 years and older receiving intravenous tissue plasminogen activator (tPA) therapy during the hospital stay and having a time from hospital arrival to initiation of thrombolytic therapy administration (door-to-needle) of 45 minutes or less.

**Comment**

In January 2018, AHA issued a new measure to encourage the door-to-needle time be reduced to 45 minutes. This measure is calculated by assessing how many of the patients that received tPA within 60 minutes received it within 45 minutes. 

This recommendation mirrors the AHA Target: Stroke<sup>TH</sup> phase II objectives. Time is brain.
**SM-13: Stroke Team Arrival** (previously SM-1)

**Description of the measure**

This measure addresses the time between presentation of a patient with stroke symptoms in the ED and the arrival of the stroke team to the bedside, or the time between inpatient onset of symptoms and the arrival of the stroke team to the bedside.

**Comment**

Some hospitals have initiated over-calling of code stroke so that patients with vague or confusing stroke symptoms will not be missed. The code stroke can always be called off when ruled out. Prompt arrival of the stroke team is key to meeting other performance measures, e.g. door-to-needle times.

This measure was met by 84% of participating programs.

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**HFAP CENTERS BY THE NUMBERS**

Number of Stroke Patients Expired: 37 | MIN 0
**SM-14: Glucose Results** (previously SM-2)

### Description of the measure

This measure looks at patients with lab testing drawn and results delivered within 45 minutes of arrival in ED and inpatients with lab testing drawn and resulted within 45 minutes of onset of symptoms. Lab turnaround times include: point of care glucose testing; INR and PT and PTT (if indicated).

### Comment

Keep in mind that only glucose (and INR, PT, PTT if clinically indicated) is required before administration of tPA! Given the extremely low risk of unsuspected abnormal platelet counts or coagulation studies in a population, it is reasonable to move forward with urgent tPA treatment rather than waiting for hematologic or coagulation testing when there is no reason to suspect an abnormal test. The ED physicians will almost assuredly order these tests, but they do not have to be reported before administration of tPA and therefore do not have to meet the 45-minute turnaround time.

This measure was met by 79% of participating programs.
SM-15: Neuroimaging Studies (previously SM-3)

Description of the measure

This measure addresses the number of patients with neuroimaging (CT scan or MRI) turnaround time within 45 minutes of arrival exhibiting or presenting with acute stroke symptoms (as defined by hospital protocols).

Comment

Organizations that miss this benchmark should seek the root cause of the timeliness issue. Identify where in the process the delay occurs. Is it that the patient isn’t getting to CT? That the CT is delayed in the department? That the radiologist is not timely in reading the report? That documentation of the ED physician being notified of results was not there or not timely? This breakdown may illuminate where minutes may be cut.

Does the patient go directly to CT after s/he has been briefly assessed by the stroke team? Some hospitals that have implemented a direct to CT protocol (without going to a treatment room) have seen significant improvements in this measure.

This measure was met by 74% of participating stroke programs.
Description of the measure

This measure addresses the number of patients diagnosed with hemorrhagic stroke (as defined by hospital protocols) receiving neurosurgical services (or transferred for neurosurgical service) within two hours of identified need.

Comment

Remember that this time is NOT door to transfer out time. It is the time the decision is made that the patient may need neurosurgery to transfer out. This is sometimes difficult to find in the documentation. It may be the time the ED physician talks with the radiologist or it may be the time the ED physician talks with the neurologist. Discuss with your ED physicians the best way to capture this time.

This measure was met by 95% of participating programs.