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Bureau of Health Care Safety and Quality
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TO: Chief Executive Officers
Acute Care Hospitals

FROM: Madeleine Biondolillo, MD
Associate Commissioner

Deborah Allwes, BS, BSN, MPH
Director, Bureau of Health Care Safety and Quality

DATE: June 26, 2014

RE: Primary Stroke Services

The Department is committed to ensuring optimal patient care, including access to high quality stroke services to the residents of Massachusetts.

The purpose of this memo is to provide an update on the designated Primary Stroke Service (PSS) regulations. Effective October 1, 2014, the Department will require the National Institutes of Health Stroke Scale (NIHSS) be performed as part of an acute stroke patient's initial assessment in the Emergency Department.

The NIHSS is a systematic assessment tool¹ that provides a quantitative measure of stroke-related neurologic deficit. Use of a standardized assessment and stroke severity scale, such as the NIHSS, is a recommended clinical guideline² (Class I, Level of Evidence B). The NIHSS is considered one of the most reliable and valid instruments as a clinical measurement of stroke severity and is endorsed in national guidelines including the American Heart Association/ American Stroke Association.³

Some of the advantages to use of the National Institute of Health Stroke Scale (NIHSS) include the following:

- Provides a simple, valid, reliable and widely used clinical assessment tool that can be administered at the bedside consistently by physicians, nurses or therapists.

¹ http://www.ninds.nih.gov/doctors/stroke_scale_training.htm

² <http://stroke.ahajournals.org/content/38/5/1655.full.pdf>

³ <http://stroke.ahajournals.org/content/early/2014/02/11/STR.000000000000014.full.pdf>

- Provides a standardized clinical assessment tool to objectively quantify the measure of stroke severity and document an acute stroke patient's neurological status and plan for patient care.
- Facilitates communication between healthcare professionals by providing a common language for information exchange.
- Provides a method to monitor changes in a patient's neurological status, identify subtle changes in a patient's condition, determine appropriate treatments and allow for more timely intervention.
- Serves as a predictor of both short and long term patient outcomes. If the patient assessment is periodically repeated, it assists in identifying areas of patient improvement or lack of improvement.
- Serves as a risk assessment tool, enabling providers to more accurately evaluate stroke morbidity and mortality rates at their facility.
- Aligns with federal drug labeling for use of intravenous tissue-type plasminogen activator (tPA) that incorporates NIHSS.
- Provides a single patient assessment typically completed by a trained provider in less than 10 minutes.

As part of this initiative, the existing PSS Patient Management Tool™ (PMT) will be revised to include several NIHSS data elements, including the patient's numerical score based on the standardized NIHSS, and other reporting features. Further definition of the data elements will be provided prior to the October 1, 2014 implementation date.

It is highly recommended that the NIHSS be performed by a practitioner who has been certified to perform the NIHSS (the links below provide resources for online certification). If a complete neurological examination, including documentation of all of the relevant components is performed, the NIHSS score may be extracted from the record by the abstractor in lieu of the scale being performed separately. Upon release of the revised PMT, detailed abstraction instructions will be provided by the Department.

Notification of this upcoming change is being made at this time to provide hospital leadership the opportunity to develop protocols and processes for staff training on the NIHSS, as well as the documentation and reporting of the NIHSS data. Below are links to two web-based NIHSS training resources.

If you have questions about access to your hospital's data or data entry issues, please contact Outcome Science's Help Desk at 888-526-6700 or support@outcome.com. For questions about information in this letter please contact Gail Palmeri at 617-753-8230, or email gail.palmeri@state.ma.us.

Online Training Resources for NIHSS:

American Heart Association:

<http://learn.heart.org/ihtml/application/student/interface.heart2/nihss.html>

National Stroke Association:

<http://nihss-english.trainingcampus.net/uas/modules/trees/windex.aspx>