



## **EP6 – Nurses incorporate regulatory and specialty standards/guidelines into the development and implementation of the care delivery system.**

Provide one example, with supporting evidence, of nurses incorporating specialty standards/guidelines into the delivery of care.

**Example 1:** Nurses Incorporate Joint Commission Primary Stroke Center Certification Requirements and American Stroke Association (ASA) and American Association of Neuroscience Nurses (AANN) Guidelines into Care Delivery Across the Continuum of Care

UVA Health System has been recognized as a Stroke Center by the Commonwealth of Virginia since 1986. In 2004, the Joint Commission (JC) started offering Disease Specific Advanced Certification for Primary Stroke Centers. At that time, Heather Turner, BA, BSN, RN, CNRN, Stroke Program Coordinator, led the organization through the process of becoming a Joint Commission Primary Stroke Center (PSC). This was achieved in February of 2005. Turner remains in this position and plays an essential role in maintaining PSC certification. She is responsible for oversight of the Stroke Quality Program, including compliance with Core Measures and PSC certification requirements.

Attainment of Primary Stroke Center designation rests upon the implementation of national regulatory standards<sup>1</sup> and evidence-based guidelines from the American Stroke Association (ASA) and the American Association of Neuroscience Nurses (AANN). These in turn are used in practice to generate high levels of quality outcomes compared to national benchmarks. To achieve this in daily practice, our organization has developed interprofessional guidance documents to drive practice according to these national standards. These documents are based on the Joint Commission Primary Stroke Center Certification requirements and ASA and AANN recommendations. To support compliance with the guidelines, Turner has worked with Epic team members to create order sets. This allows physicians to use preformatted orders that are compliant with the guidelines. Nursing staff then have evidence-based orders from which to deliver care every step of the way.

Turner chairs the interdisciplinary Stroke Quality Support Team (QST), which reviews and updates these guidelines annually. The Stroke QST is made up of nurses from the Emergency Department, Stroke Unit and Neuro ICU, stroke physicians, therapists, pharmacists, nutritionists, and rehabilitation, neuroradiology and quality liaisons (see Table 1 below). The care delivery standards based on national guidelines for each subpopulation of stroke patient are contained in the following:

- Clinical Practice Guideline for Ischemic Stroke, updated January 2013 and based on ASA Ischemic Stroke Guidelines<sup>2</sup>



- Acute Treatment Guidelines for Ischemic Stroke, updated April 2013 and based on ASA Ischemic Stroke Guidelines<sup>2</sup>
- Acute Stroke Code Protocol, updated April 2013 and based on ASA Ischemic Stroke Guidelines<sup>2</sup>
- [Exhibit EP6.a: Clinical Practice Guidelines for Subarachnoid Hemorrhage](#), updated April 2013 and based on ASA Subarachnoid Hemorrhage Guidelines<sup>3</sup>
- Clinical Practice Guidelines for Intracerebral Hemorrhage, updated April 2013 and based on ASA Intracranial Hemorrhage Guidelines<sup>4</sup>
- [Exhibit EP6.b: Guidelines for the Care of the Post IV Thrombolytic Patient](#), updated October 2013 and based on AANN Ischemic Stroke Guidelines<sup>5</sup>

The Stroke QST Committee regularly reviews the performance metrics for Joint Commission Stroke Center certification, changes in practice, education needs for team members and patient feedback. An example of minutes from the February 2014 Stroke QST Committee can be found in [Exhibit EP6.c: 021914 Stroke QST Minutes](#).

To monitor our Performance Measure compliance, Turner advocated for institutional participation in the Get With The Guidelines (GWTG) stroke database. Sponsored by the American Heart / American Stroke Association (ASA), GWTG is a national stroke registry with 2,384 participating hospitals and almost three million patients entered. Participation in this database requires significant data extraction from patient records, submission to the database and analysis to evaluate program compliance, facilitated by Lil Currie, PhD, RN, Data Analyst, Stroke Program Data Abstractor. The performance of the UVA Health System program is captured on the Stroke Dashboard. ([Exhibit EP6.d: 2013 Stroke Dashboard](#)) The performance measures followed by UVA's stroke program are evaluated and updated annually based on past performance and current recommendations. Review of compliance with the performance measures outlined in Joint Commission requirements and ASA Metrics for Measuring Quality of Care in Comprehensive Stroke Centers<sup>6</sup> drive incremental changes to our standards to improve care delivery.

Turner plays an active role in the patient care environment. She rounds with the Stroke Service frequently, concurrently reviewing each patient's care to make sure all performance and certification requirements are met. Coaching and individual feedback on adherence to standards is provided. All charts are audited retrospectively, and Turner also communicates with any nurse and / or physician involved in a missed opportunity to provide excellent care per Core Measure expectations.

This same process is replicated in our Emergency Department via the oversight of Karen Braden, MSN, RN, CEN, CPNP-AC, Quality Improvement Coordinator. Any ED patient who has had a "stroke code" activated will have care guided by standardized materials packets to deliver care in the moment. Subsequently, each of these patients'



charts is reviewed by Braden within 48 hours and individual feedback provided where gaps in adherence are noted. Beginning in 2013, Turner, Currie and the Emergency Department's Prehospital Education Coordinator, Donna Burns, BSN, RN, implemented a process by which they also give 100% case review feedback to prehospital Emergency Medical Services (EMS) teams who have worked with any patient who subsequently received acute treatment for stroke in our ED. Additionally, Turner serves on the Thomas Jefferson District EMS Stroke Committee (EMTs, EMS Medical Director, stroke physicians and stroke coordinators from the community hospital in the area and UVA), which sets the standards for prehospital EMS care in our region. In this way, nursing assures that even in the prehospital environment, our standards are being followed to maximize patient outcomes.

Our Neurological ICU nurses utilize national standards to perform dysphagia screening on all stroke patients in their unit. While adherence to these standards is not one of the Core Measures, this practice is part of the ASA and AANN guidelines and is important for patient safety. Our NNICU nurses consistently perform well on this measure. Bridget Moss, MSN, RN, ACNPC, CCRN, CNRN, Advanced Practice Nurse 2-NP; Tanya Prachar, MSN, RN, CNRN, PMHNP-BC, Clinician IV; and Dea Mahanes, MSN, RN, CCRN, CCNS, CNRN, Advanced Practice Nurse 3-CNS, have been longstanding champions of this aspect of stroke care driven by nurses.

One Stroke Core Measure driven solely by nursing is stroke education. Based on Joint Commission requirements and the ASA and AANN guidelines, the Stroke QST created two stroke education packets: one for ischemic stroke and one for hemorrhagic stroke. Many of the handouts are sourced from the American Stroke Association and, where they found the ASA options lacking, the Stroke QST created additional handouts. Each packet covers the Joint Commission-required topics of signs and symptoms of stroke, the need to call 911, risk factors for stroke and the need for follow-up care after discharge. When teaching a patient and / or his or her family, the bedside nurse retrieves the appropriate packet and then individualizes it with handouts concerning the patient's unique needs and risk factors. The nurse reviews this packet with the patient and / or his or her family and documents this in the EMR. The primary stroke education information is also included in the patient's discharge instructions, and this information is again reviewed and documented. Examples of two handouts used to educate stroke patients and their families can be found in [Exhibit EP6.e: Stroke Risk Factors and Post-Stroke Depression](#). These two handouts were created by UVA Health System nurses to support patient and family needs.

Turner also engages nurses in decisions about how national guidelines will be incorporated. On 6 Central, our primary stroke unit, she facilitated staff engagement in the decision of whether to utilize the full National Institutes of Health Stroke Scale (NIHSS) or to continue to use the modified version. This question was posed by nurses who had used the NIHSS in previous institutions. Additionally, the literature is



inconclusive about the clinical efficacy of the full NIHSS scale versus one of several of the modified versions to accurately assess stroke symptoms.

Turner led an effort to engage nurses in the decision-making about which tool to use in daily assessments. Together with the nurses and leaders of the four areas that use the tool, the 6 Central stroke unit, NIMU, Neuro ICU and Neuro Radiology, they decided to pilot the full NIHSS scale for three months. The goal of the pilot was to determine if this was the best scale to use in our setting. To prepare, all nurses in the four areas had to complete three contact hours of education to be trained in conducting the NIHSS. The pilot was completed in January 2014. Turner then surveyed the staff using an online survey to determine results. Staff preferred the modified scale to the full NIHSS scale, and the units have continued to use the modified version. Engaging the nurses in this critical examination of the evidence and trialing legitimate alternatives was an experience that strengthened front line staff's buy-in to the use of standards in this population.

### Participants:

**EP6 Table 1: Participants, Stroke QST Committee**

<b>Name</b>	<b>Discipline</b>	<b>Title</b>	<b>Department</b>
Heather Turner	Nursing	RN Clinician IV and Stroke Program Coordinator	6 Central
E. Clarke Haley	Physician	Professor of Neurology	Neurology
Allison Walton	Nursing	Neurosurgery NP	Neurosurgery
Karen Braden	Nursing	Quality Improvement Coordinator	Emergency Department
Zuseen Castrillon	Nursing	RN Clinician II	Neuro Intermediate Care Unit
Lil Curry	Nursing	Data Analyst	Stroke Program
Sherita Chapman	Physician	Instructor of Neurology	Neurology
Dana Cullen	Nutrition	Registered Dietitian	Nutrition
Linda Freeman	Nursing	RN Clinician III	Neuro ICU
Jan Garnett	Nursing	Nurse Manager	6 Central
Rita Hunt	Occupational Therapy	Occupational Therapist – Clinician III	Therapy Services
Lori Mays	Nursing	Supervisor, Nursing Staff Resource	Staffing Resource Office
Prachi Mehndiratta	Physician	Fellow	ACGME



Bridget Moss	Nursing	Advanced Practice Nurse 2-Nurse Practitioner	Neuro ICU
Leslie O'Leary	Nursing	RN Clinician II	6 Central
Beth Patterson	Nursing	RN Clinician III	6 Central
Julie Pitti	Speech	Speech/Language Pathologist – Clinician III	Therapy Services
Ted Sindlinger	Pharmacy	Clinical Pharmacist	Pharmacy
Allison Titus	Occupational Therapy	Occupational Therapist – Clinician II	Therapy Services
Elizabeth Turner	Speech	Speech/Language Pathologist – Clinician II	Therapy Services
John Zenker	Physical Therapy	Physical Therapist – Clinician III	Therapy Services
April Burns	Nursing	RN Clinician III	NeuroRadiology

#### Outcome(s):

UVA performs well in all required Core Performance Measures and six additional self-identified stroke-related performance measures. We exceed peer benchmarks in almost all measures. The interprofessional collaboration that is evident within this specialty service leads to great outcomes for these specialized patients. The systematic adherence to national standards as noted above in all phases of daily patient care drives these outcomes. Nursing plays a key role in the development, use and evaluation of these standards across settings. Turner posts program outcome data on 6 Central on a regular basis to help nurses stay in touch with the outcomes of their care delivery. Nursing staff are attuned to the key role that the Stroke Program's use of national standards plays in patient care.

#### References:

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- American Heart Association / American Stroke Association. *Stroke*. 2013;44:870–947.
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