The Successful Implementation of a Collaborative, Interdisciplinary, CMS Structural Quality Measure-Compliant Stroke Data Collection, Review and Reporting Process at an Urban Academic Medical Center and its Urban Community Hospital Affiliate

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on behalf of the entire Mount Sinai / Get With the Guidelines®-Stroke implementation team

Background

On January 1, 2010, in response to the Centers for Medicare & Medicaid Services (CMS) Structural Quality Measure for Fiscal Year 2011 Payment Determination (CMS Structural Quality Measure), our stroke center teams from our urban academic medical center and our urban community hospital affiliate successfully implemented a stroke data collection, review and reporting process utilizing the Get With the Guidelines®-Stroke (GWTG-Stroke) registry. This collaborative, interdisciplinary, bi-campus process, coordinated by our stroke center coordinator, has involved our neuroscience clinical nursing staff, stroke fellows and attending physicians, quality research analyst staff, and information technology staff.

Objectives

To comply with the CMS Structural Quality Measure, we aimed to develop systems and processes to maintain both an internal data repository and the capability to upload data to GWTG-Stroke for reporting to The Joint Commission and the New York State Department of Health. Additionally, we felt it critical to engage our front-line clinicians in the stroke data collection and review process.

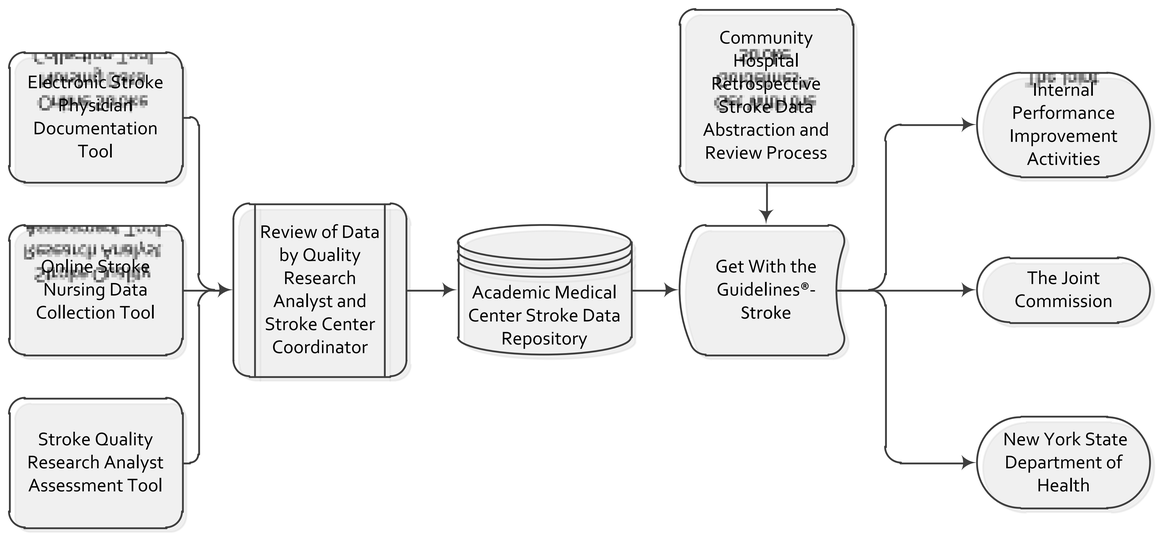
Opportunities and Challenges

The implementation of new systems and processes for data collection, review and reporting has enabled us to:

- Monitor the effect of real-time data entry on compliance with the performance measures
- Observe the impact of concurrent monitoring on nursing and physician documentation
- Apply the lessons learned to the implementation of targeted clinician education programs and the development of our hospital-wide electronic medical record
- Continue to maintain an internal data repository for quality assessment purposes

We are challenged by difficulty comparing the outcomes of this data collection process to the process in place prior to January 1, 2010, as the data collection methodologies are not comparable.

Process Flow Diagram

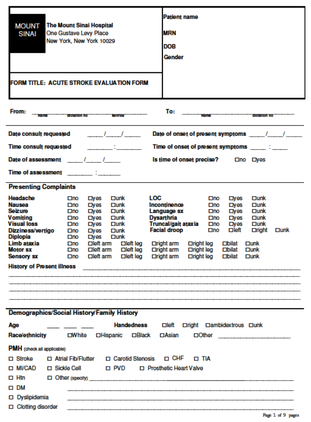


Methods

Our stroke center clinical leadership, in collaboration with our information technology staff, created electronic tools for concurrent nursing and retrospective quality assessment data collection on our academic medical center campus. Data collected using these tools and an existing physician documentation tool is quality controlled by our stroke center coordinator and quality research analyst staff prior to upload to GWTG-Stroke. At our urban community hospital, data is retrospectively abstracted and entered into the GWTG-Stroke Patient Management Tool™. All data is reviewed by the stroke center coordinator, stroke center leadership, and the relevant physician and nursing leadership before it is shared with our front-line providers and The Joint Commission and the New York State Department of Health.

Information Technology Systems Design/Selected Documentation & Abstraction Tools

The acute stroke evaluation physician tool, the stroke nursing data collection tool and the quality assessment data collection tool are available for completion by our clinical and quality staff on our Stroke Login Intranet site. Upon completion, data is quality controlled and consolidated for uploading to GWTG-Stroke using our stroke data export tool. This data export tool was developed to link data from multiple sources and convert the data required for reporting to CSV format.


MOUNT SINAI The Mount Sinai Hospital One Gustave Levy Place New York, New York 10029

Patient name
MRN
DOB
Gender

FORM TITLE: ACUTE STROKE EVALUATION FORM

From: _____ To: _____

Date consult requested ____/____/____
Time consult requested ____:____
Date of assessment ____/____/____
Time of assessment ____:____

Date of onset of present symptoms ____/____/____
Time of onset of present symptoms ____:____
Is time of onset precise? ☐no ☐yes

Presenting Complaints

Headache	☐no	☐yes	☐unk	LOC	☐no	☐yes	☐unk		
Seizure	☐no	☐yes	☐unk	Incontinence	☐no	☐yes	☐unk		
Nausea	☐no	☐yes	☐unk	Language sx	☐no	☐yes	☐unk		
Vomiting	☐no	☐yes	☐unk	Dysarthria	☐no	☐yes	☐unk		
Visual loss	☐no	☐yes	☐unk	Truncal/gait ataxia	☐no	☐yes	☐unk		
Dizziness/vertigo	☐no	☐yes	☐unk	Facial droop	☐no	☐left	☐right	☐unk	
Diplopia	☐no	☐yes	☐unk						
Limb ataxia	☐no	☐left arm	☐left leg	☐right arm	☐right leg	☐bilat	☐unk		
Motor sx	☐no	☐left arm	☐left leg	☐right arm	☐right leg	☐bilat	☐unk		
Sensory sx	☐no	☐left arm	☐left leg	☐right arm	☐right leg	☐bilat	☐unk		

History of Present Illness _____

Demographics/Social History/Family History

Age ____ ____ Handedness ☐left ☐right ☐ambidextrous ☐unk
Race/ethnicity ☐White ☐Hispanic ☐Black ☐Asian ☐Other _____

PMH (check all applicable)

☐ Stroke ☐ Atrial Fib/Flutter ☐ Carotid Stenosis ☐ CHF ☐ TIA
☐ MI/CAD ☐ Sickle Cell ☐ PVD ☐ Prosthetic Heart Valve
☐ Htn ☐ Other (specify) _____
☐ DM
☐ Dyslipidemia
☐ Clotting disorder

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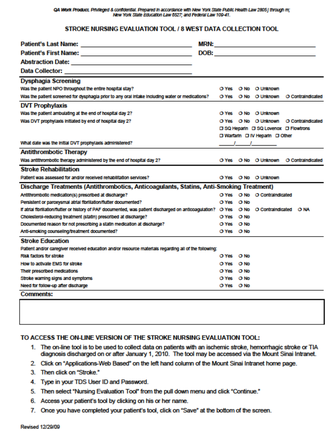
QA Work Product; Privileged & confidential; Prepared in accordance with New York State Public Health Law 2805j through m; New York State Education Law 6527 and Federal Law 109-41

STROKE NURSING EVALUATION TOOL / 8 WEST DATA COLLECTION TOOL

Patient's Last Name: _____ MRN: _____
Patient's First Name: _____ DOB: _____
Abstraction Date: _____
Data Collector: _____

Dysphagia Screening
Was the patient NPO throughout the entire hospital stay? ☐ Yes ☐ No ☐ Unknown
Was the patient screened for dysphagia prior to any oral intake including water or medications? ☐ Yes ☐ No ☐ Unknown ☐ Contraindicated

DVT Prophylaxis
Was the patient ambulating at the end of hospital day 2? ☐ Yes ☐ No ☐ Unknown
Was DVT prophylaxis initiated by end of hospital day 2? ☐ Yes ☐ No ☐ Unknown ☐ Contraindicated
☐ SQ heparin ☐ SQ Lovenox ☐ Fondinux
☐ Warfarin ☐ IV heparin ☐ Other
What date was the initial DVT prophylaxis administered? ____/____/____

Antithrombotic Therapy
Was antithrombotic therapy administered by the end of hospital day 2? ☐ Yes ☐ No ☐ Unknown ☐ Contraindicated

Stroke Rehabilitation
Patient was assessed for and/or received rehabilitation services? ☐ Yes ☐ No ☐ Unknown

Discharge Treatments (Antithrombotics, Anticoagulants, Statins, Anti-Smoking Treatment)
Antithrombotic medication(s) prescribed at discharge? ☐ Yes ☐ No ☐ Contraindicated
Persistent or paroxysmal atrial fibrillation/flutter documented? ☐ Yes ☐ No
If atrial fibrillation/flutter or history of AF documented, was patient discharged on anticoagulation? ☐ Yes ☐ No ☐ Contraindicated ☐ NA
Cholesterol-reducing treatment (statin) prescribed at discharge? ☐ Yes ☐ No
Documented reason for not prescribing a statin medication at discharge? ☐ Yes ☐ No
Anti-smoking counseling/treatment documented? ☐ Yes ☐ No

Stroke Education
Patient and/or caregiver received education and/or resource materials regarding all of the following:
Risk factors for stroke ☐ Yes ☐ No
How to activate EMS for stroke ☐ Yes ☐ No
Their prescribed medications ☐ Yes ☐ No
Stroke warning signs and symptoms ☐ Yes ☐ No
Need for follow-up after discharge ☐ Yes ☐ No

Comments: _____

TO ACCESS THE ON-LINE VERSION OF THE STROKE NURSING EVALUATION TOOL:

1. The on-line tool is to be used to collect data on patients with an ischemic stroke, hemorrhagic stroke or TIA diagnosis discharged on or after January 1, 2010. The tool may be accessed via the Mount Sinai Intranet.
2. Click on "Applications-Web Based" on the left hand column of the Mount Sinai Intranet home page.
3. Then click on "Stroke."
4. Type in your TDS User ID and Password.
5. Then select "Nursing Evaluation Tool" from the pull down menu and click "Continue."
6. Access your patient's tool by clicking on his or her name.
7. Once you have completed your patient's tool, click on "Save" at the bottom of the screen.

Revised 12/29/09

Results

The integration of concurrent data collection using our electronic stroke physician documentation tool and our online stroke nursing data collection tool on our academic medical center campus engages our front-line clinicians in the performance improvement process at the point of care. This engagement is key to aligning clinician documentation with clinical care provided. Our stroke center coordinator reinforces the importance of compliance with the performance measures during rounds with the stroke team. On our community hospital campus, well-established systems for providing feedback to front-line providers have resulted in a noticeable improvement in clinical performance.

Conclusion/Implications for Practice

Continuing to support and sustain these well-established systems and processes has enabled us to maintain a comprehensive internal data repository and share elements of that repository with our multidisciplinary team. The systems and processes that we have established have also enhanced our ability to assess clinical performance and quality of care, and to identify opportunities for improvement across campuses.

About the Stroke Centers at Mount Sinai Hospital and Mount Sinai Queens

The Stroke Centers at Mount Sinai Hospital and Mount Sinai Queens provide comprehensive, interdisciplinary care to stroke patients and their families. Our clinicians have been recognized for their commitment to excellence in stroke patient care with primary stroke center certification from both the New York State Department of Health and The Joint Commission.

Contact Information

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