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### The Development and Implementation of a Reliable Method for Educating Provider Groups on Stroke Discharge Order Sets

Deborah Gregoire  
*Maine Medical Center*

Shawn Taylor  
*Maine Medical Center*

Suneela Nayak  
*Maine Medical Center*

Mark Parker  
*Maine Medical Center*

Kathryn Cope  
*Maine Medical Center*

*See next page for additional authors*

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**Authors**

Deborah Gregoire, Shawn Taylor, Suneela Nayak, Mark Parker, Kathryn Cope, Ruth Hanselman, Stephen Tyzik, Amy Sparks, and Brendan Lilley

# The Development and Implementation of a Reliable Method for Educating Provider Groups on Stroke Discharge Order Sets

Last Updated: 9/3/2018

Executive Sponsor: Kathryn Cope and Mark Parker Facilitator: Ruth Hanselman, Suneela Nayak, Stephen Tyzik, Amy Sparks, Brendan Lilley

Team Members: Deborah Gregoire, Shawn Taylor

## Problem/Impact Statement:

In the U.S., a stroke occurs every 40 seconds and is the fifth leading cause of death. More than 800 patients come through Maine Medical's stroke center every year. Maintaining the highest level of available care allows Maine Medical Center (MMC) to have dramatic, positive impacts on thousands of affected individuals. Comprehensive Stroke Certification was received from Joint Commission in February of 2018. To keep up with the standards, MMC created/revised the 15 stroke order sets to ensure providers could easily place the correct orders for every stroke patient. Following certification, inconsistent documentation indicated additional room for improvement and high potential risk for stroke patients. Without proper stroke order sets being used, specified protocols, pathways and best practices may not align with AHA/ASA guidelines and could contribute great risk to patient safety.

## Scope:

**In scope:** MMC departments supporting organization of stroke treatment plans and care: Critical Care, Neurosurgery, Neurology, Neurocritical care, AIM, Nursing, ED, IR, CT, and Rehab Medicine  
**Out of scope:** Other Maine Health Hospitals that are not CSC

## Goals/Objectives:

1. Increase team's awareness of chargeable items, item cost, and reasons behind charging patients. This will also discourage wastage of items
2. Decrease safety risk for team & patients when emergency or safety supplies are not readily available.
3. Align SCU's workflows with the hospital Annual Implementation Plan goal of Affordable Care through fiscal responsibility via charging appropriate items to the correct patient or unit/department.
4. Eliminate lost revenue from our budget; possibly opening up finances for needed items/improvements.

## Baseline Metrics/Current State:

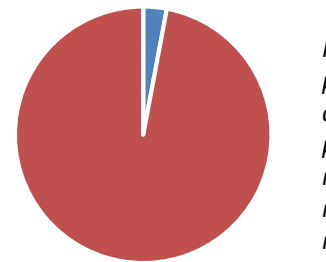


Figure 1  
 ■ Providers Trained ■ Providers Untrained

Initially trained 49 total providers out of 1658, consisting of 4 different provider groups (AIM, neuro-critical care, neuro-hospitalists, and neurosurgery)

Stroke Discharge Order Set Utilization CY 2017

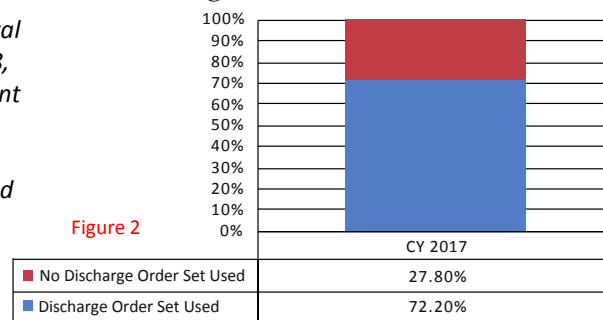


Figure 2

Figure 2 examines the use of proper discharge order sets through the 729 total stroke cases in 2017

## Root Cause Analysis:

Problem	Missing documentation of neuro checks and vital signs
Why?	Proper order set was not used
Why?	Many providers do not know which stroke order set to use
Why?	Not all providers were educated on the stroke order sets
Why?	Initial focus was only on attending AIM, neuro-hospitalists, neuro critical care, and neurosurgery providers
Why?	The perception was only those specializing in or focusing on stroke would need to use stroke order sets
Root Cause	Due to the possibility of strokes occurring in any department/service, the perception that only those specializing in or focusing on strokes would need to use the order sets was incorrect

Hospitalists' Compliance with Using Correct Order Sets

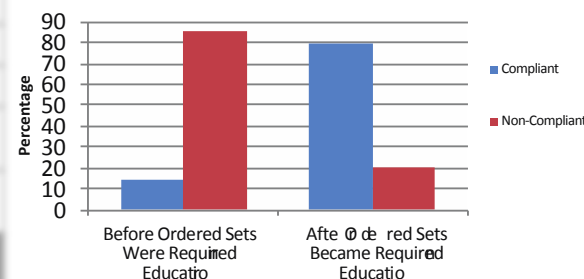
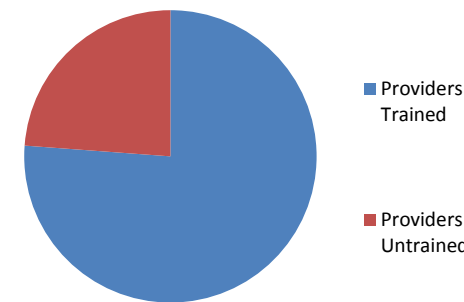


Figure 3

## Countermeasures

Action	Owner	Due Date	Status
<ul style="list-style-type: none"> <li>Implement daily KPI of Neuroscience and critical care order sets</li> <li>Daily audit of patient charts for correct documentation</li> </ul>	Deb Gregoire, Shawn Taylor, SCU3	May 2018	Completed
Develop educational opportunities for stroke order sets	Deb Gregoire	Jan 2018	Completed
Develop action items based on education options	Deb Gregoire	Ongoing	Ongoing
Educational PowerPoints sent out to all medical groups	Deb Gregoire	6/13/18	Completed
Develop method with Medical Chiefs to implement education into onboarding process for new providers	Deb Gregoire, Medical Chiefs (Dr. Cushing, Dr. Sawyer, Dr. Roy)	Ongoing	Ongoing
Integrate stroke order sets into resident education	Deb Gregoire	July 2018	Completed
Ongoing audits and just-in-time education for providers when incorrect order set is used (admission and discharge order sets)	Deb Gregoire	Continuous	Ongoing

## Outcomes



Now reaching entire medical staff excluding provider groups with no chance of encountering stroke (ex. Dermatology; noted by red portion), consisting of 1263 out of 1658 total providers

Figure 4

Stroke Discharge Order Set Utilization

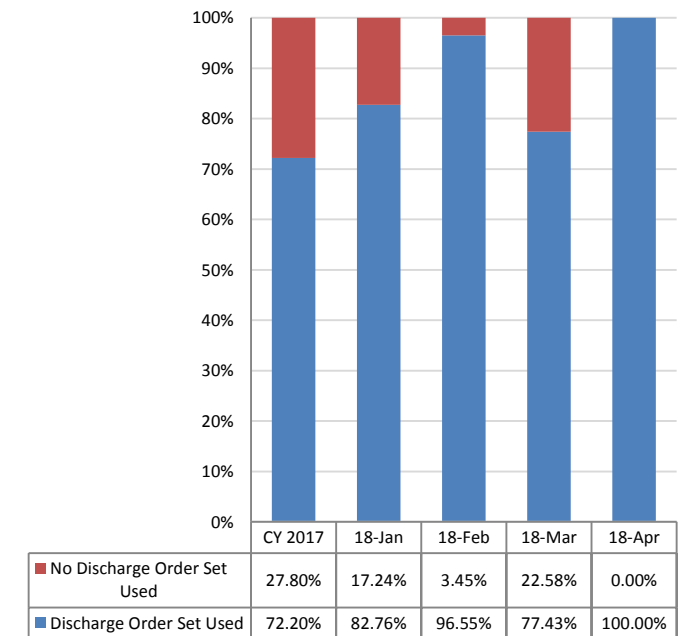


Figure 5

Figure 5 examines the use of proper discharge order sets through the 729 total stroke cases in 2017 as well as several months of 2018, with each month averaging about 61 total stroke cases

## Next Steps

Complete KPI to effectively reach providers with the education

Work with medical chiefs to implement education of resident groups, APPs, and PAs

Maintain highest level of stroke certification