



Profile

Community Healthcare System is comprised of three not-for-profit hospitals: Community Hospital in Munster; St. Catherine Hospital in East Chicago; St. Mary Medical Center in Hobart, and Hartsfield Village, a Continuing Care Retirement Community in Munster. The Northwest Indiana healthcare system's vast network of care locations includes outpatient, surgical and rehabilitation centers, physician practices, behavioral health, occupational health, home care, a medically-based fitness center, Fitness Pointe, the Community Cancer Research Foundation and Cancer Resource Centre support center.

The ongoing mission of the healthcare system is to provide the highest quality care in the most cost-efficient manner, respect the dignity of the individual, provide for the wellbeing of the community and serve the needs of all people. To that end, every three years a Community Health Needs Assessment is conducted to reexamine the health status, behaviors and most pressing health needs of the cities and towns in Northwest Indiana and south suburban Chicago, Illinois served by the three hospitals. Insights gained through this survey process inform the hospitals' plans to address health disparities and bring about improvements to the health status of the community.

The Challenge

Improving stroke care in Northwest Indiana is one of those priorities, as spelled out by the findings of the most recent 2016 Community Health Needs Assessment conducted by a group of local hospitals including the hospitals of Community Healthcare System.

Of all strokes, 85 percent are ischemic in nature, meaning that it is caused by an obstruction within a vessel supplying blood to the brain. Research shows that endovascular therapy or intervention to remove a blockage or blood clot is the

most effective treatment. However, statistics show Indiana as one of the lowest performing states as it pertains to stroke treatment and door-to-needle times. Endovascular therapy has been proven to be the most effective treatment for patients with acute stroke and large artery occlusion; roughly 40 percent of the hospitals' stroke patients present with large vessel strokes.

The hospitals of Community Healthcare System recognized that despite a concerted effort to improve thrombolytic (tPA) administration rates and door-to-drug times in cases of Acute Ischemic Stroke, changes in processes needed to be addressed first in terms of:

- Obtaining timely specialty consults
- Synchronization of EMS prehospital assessment and care
- Standardization of clinical documentation by creating a "Stroke Narrator" in the electronic medical record (EMR)

With rising stroke patient volumes over the past five years and the fact that stroke is the fourth leading cause of death in Lake County, IN, at 43 percent, Community Healthcare System was committed to take a leadership stance and address the deficiencies that were hindering the delivery of excellence in stroke care in Northwest Indiana.

Implementation Overview

Identification of these barriers allowed for a system-wide plan of action that included collaboration with EMS personnel, neurologists and ancillary staff. Each hospital site was held accountable for implementation of the initiatives at their end and also collaboration with the system-wide team.

TeleStroke

To assist in obtaining timely specialty consults, the hospitals partnered with an academic university medical center to bring board-certified vascular neurologists to the patient's bedside within minutes for stroke assessment. The mobile video robotic system enables neurologist face-to-face consult through a high-definition camera located on the robot to view a patient's pupils.

“TeleStroke allows the vascular neurologist to speak face-to-face with patients and their families, including neurologists and clinicians present in the emergency room,” said Alan Kumar, MD, chief medical officer, Community Healthcare System. “The assessment helps our emergency department teams quickly determine if the patient is an appropriate candidate for tissue plasminogen activator (tPA) which when administered in a timely manner can save lives or reduce the long-term effects of stroke.”

EMS Coordination

Community Healthcare System hospitals collaborated with local EMS to standardize the prehospital stroke protocol which facilitates rapid identification of stroke symptoms and allows mobilization of necessary resources to deliver expedited care at the hospital end. A great deal of effort was needed to synchronize care with the EMS as a large number of independent services cover the Northwest Indiana area. Each of these surrounding neighborhood departments were educated on the new prehospital stroke assessment requirements. Validation helps to ensure a consistent approach throughout the healthcare system.

Stroke Narrator

Community Healthcare System’s multidisciplinary team worked with clinical informatics to develop a Stroke Narrator for the EMR or Epic. With the Stroke Narrator, various members of the care team have a standardized, timeline to document critical elements in stroke care including vitals and test results. The main screen includes tPA 3 hour window contraindications with prompts for inclusion and exclusion criteria. The narrator also provides easy access to general information on the patient that could be pulled into the current document to provide rationale for course of care. For example, clinical decision support tools within the narrator inform the physician whether the patient is a candidate for intravenous tPA or provides the opportunity to document why tPA was withheld. In addition, because the patient’s weight is documented electronically, the pharmacist is able to more rapidly calculate the correct tPA dose for the patient. This documentation is used during the acute phase of care only to ensure that key assessments are being performed and that all options for treatment have been taken into consideration.

Resulting Value/ROI

“Time is Brain” in cases of Acute Ischemic Stroke. Community Healthcare System’s team efforts to improve on pre- and early hospital stroke care led to an increase in thrombolytic administration by two and one-half times over the prior year and a 34-minute decrease in time to thrombolytic administration. Enabling interventions that support evidence-based best practices improves stroke outcomes and enhances quality of life for stroke victims.

Lessons Learned

Community Healthcare System improved overall care for stroke patients through early, consistent recognition of stroke symptoms by synchronized EMS, TeleStroke implementation and enhanced stroke care documentation in the EMR. Each of Community Healthcare System’s certified Joint Commission Primary Stroke Centers have embraced these enhancements which allows every stroke patient to receive extraordinary, state-of-the-art care.

“It takes an accomplished team of professionals working together to ensure that more people not just survive stroke, but recover with as few lasting complications as possible,” said Lou Molina, chief executive officer, Community Hospital in Munster. “At Community Hospital, the availability of our powerful 3T MRI and construction of our hybrid surgical suite provides our neuroendovascular surgeons the ability to diagnose and perform complex neuroendovascular procedures used to treat brain aneurysms and stroke.”