



Improving the Recognition and Time to Treatment of Inpatients who Suffer a Stroke During Hospitalization Through Multidisciplinary Education – A Quality Improvement Project

Karen Schaefer, MSN, APRN, AGCNS-BC



Results

The goal of this quality improvement project was to improve recognition of possible strokes and decrease the time to treatment in eligible in-house patients.

Background

- Symptoms of a stroke for an admitted patient can be mistaken for symptoms of the admitting diagnosis or even a medication effect.
- Of patients who have a stroke, up to 17% have onset of symptoms during hospitalization.
- Patients who have a stroke during a hospitalization have worse outcomes when compared to patients with onset of symptoms in the community (Stroke, 2014).

Process

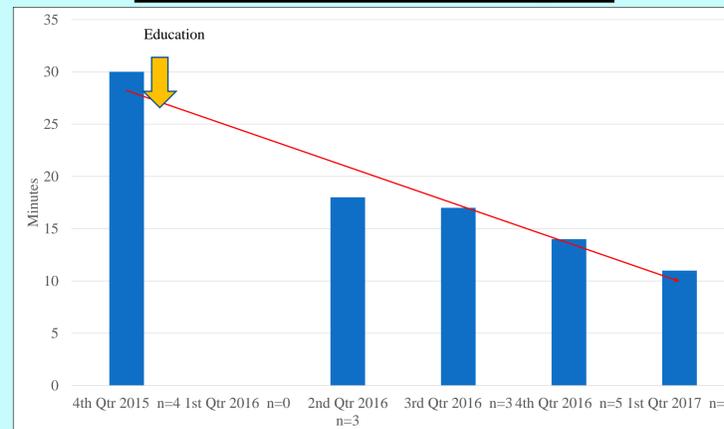
- The process of identifying and responding to a potential stroke in a hospitalized patient was assessed.
- All aspects of care were evaluated including recognition of stroke symptoms, notification and response. Time to diagnostic testing and time to intervention were also measured.
- Education was developed and provided to staff during the 4th quarter of 2015.
- 3 points of education to reach staff: in-person, computer based and in real time during code strokes.
- Inpatient staff consists of approximately 700 RNs and 150 CNAs.
- Education included recognition of stroke symptoms, how to call a code stroke and care for a stroke patient.
- Education was provided during collaborative rounds, unit huddles and in-services. This education was in-formal so number of who attended could not be quantified. However every opportunity was used to disseminate education.
- Mandatory computer based education was developed and assigned to staff based on area worked – Critical Care, Med-Surg and ancillary staff.
- Code strokes were utilized for just-in-time education to responders as well as post code review of core measures.
- New hires receive stroke education during orientation.
- Page notification changed to “Code Stroke” as well as initiating an over head page.
- Transport was added to the stroke team.



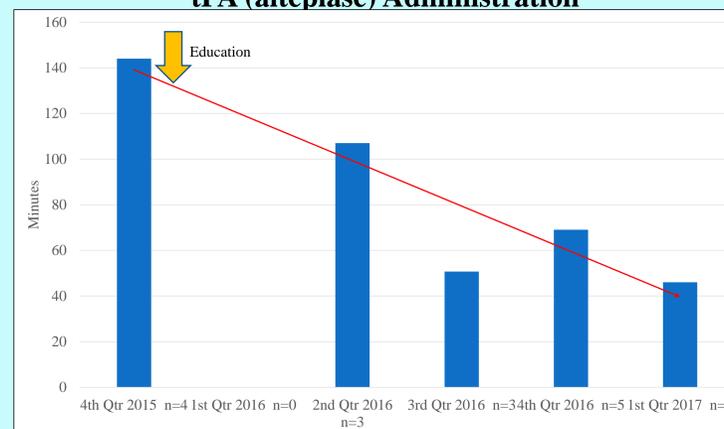
Goal

- Time from code stroke to CT for patients that received tPA decreased by 40% in the first quarter following implementation of stroke education, and decreased by 53.3% from the 4th quarter 2015 to the 4th quarter 2016.
- Time from code stroke to tPA administration for eligible patients decreased 25.7% in the first quarter following implementation of stroke education, and decreased 52% from the 4th quarter 2015 to the 4th quarter 2016.

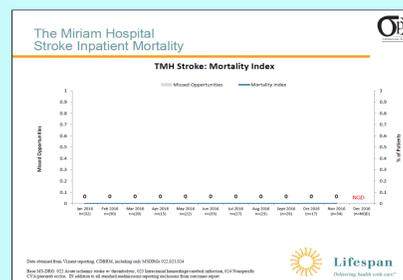
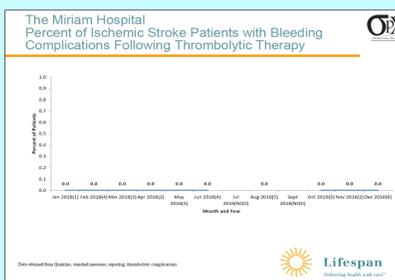
Average Time From Code Stroke to CT for Patients who Received tPA (alteplase)



Average Time From Code Stroke to tPA (alteplase) Administration

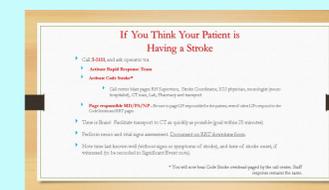


- For 2016, the stroke program has a 0% inpatient mortality rate as well as 0% bleeding complications following thrombolytic therapy.



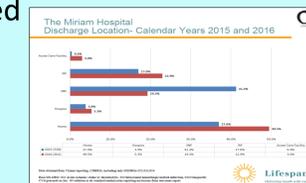
Education

- Education provided included:
 - ❖ FAST - All staff educated to FAST – Face, Arm, Speech and Time. FAST integrated into orientation as well as onboarding materials for staff (RN, CNAs and US).
 - ❖ Flier – what to do for a patient having stroke symptoms: how to call a code stroke.
- Hospital wide initiative – anyone can call a code stroke!



Conclusions

- Staff increased recognition of strokes in our inpatient population, resulting in more patients being treated for the stroke.
- Increased number of patients with atypical stroke symptoms are being recognized.
- More patients are being discharged home in 2016 when compared to 2015.



Future Considerations

- Education continues with new staff and we continue to strive for even quicker times.
- Improvement of recognition and time to treatment of in-house strokes was possible due to staff in all areas understanding the importance of quick recognition and treatment.
- Stroke care takes a team! Our multidisciplinary team continues to grow with new RNs and MDs interested in improving the care we provide to our patients.

Contact Information

Karen Schaefer MSN, APRN, AGCNS-BC
Stroke Program Manager / Advanced Practice Manager
The Miriam Hospital, Providence, RI
Karen.Schaefer@lifespan.org

