A Certified Stroke Center Leads to an Increase in the Percentage of Stroke Patients Receiving Thrombolytic Therapy
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Problem:
From the first quarter of 2008 to the first quarter of 2010, the percentage of stroke patients receiving rtPA at Our Lady of Lourdes Regional Medical Center ranged from 2.3% to 4.8%. This is typical of hospitals without certified stroke centers. The percentage of all stroke patients receiving thrombolytics at such institutions, when they do offer that treatment, ranges from 1% to 3%.

Evidence:
It was during the second quarter of 2010 that we began to see a definite trend upward. We had received our initial certification as a stroke center in March 2009 and began our public awareness campaign one year earlier. The average percentage of rtPA administration continues to increase month-to-month and presently stands at 8%.

Strategy:
Our Lady of Lourdes Regional Medical Center located in Lafayette, LA received its initial accreditation as a Stroke Center of Excellence in March 2009. A recertification was achieved in July 2011. The Stroke Center of Excellence uses algorithms and pre-printed order sets for rtPA administration and for admitting both ischemic and hemorrhagic stroke patients. The Stroke Center of Excellence utilizes a multidisciplinary approach to identifying and treating stroke patients. All nurses are required to complete specific training modules and annual mandatory education. Thus, nurses are experienced in the administration of rtPA and monitoring for complications.

Community outreach is also important in this endeavor. Numerous community stroke risk screenings and media appearances are scheduled throughout the year. These public awareness efforts emphasize the importance of calling 911 in the event stroke symptoms are seen. Identification of stroke risk factors also feature prominently in the public awareness campaign.

Practice Change:
The increase in the percentage of stroke patients receiving r-tPA is due to three factors: 1) The presence of a dedicated stroke program using established stroke algorithms and order sets, 2) The presence of experienced nursing personnel in rtPA administration and 3) The aforementioned community education program.
Evaluation:
The method was to simply review the previously collected data going back to the initiation of data collection in the 4th quarter of 2008. This data collection is on-going and is necessary for the maintenance of our stroke center certification.

Results:
Since the 4th quarter of 2008, a total of 53 patients received rtPA. 34% were discharged home, 32% were discharged to a rehabilitation facility, 17% were sent to a long term acute care hospital, 7.5% were discharged to hospice care and 7.5% expired, and 2% went to a nursing home.

Recommendations:
The establishment of a certified stroke center, along with a public awareness campaign, results in an increase in the percentage of stroke patients receiving rtPA. We have every reason to believe the percentage of stroke patients receiving thrombolytic therapy will continue to increase as the public becomes more aware of stroke symptoms and the availability of treatment options.

Lessons Learned:
Certified stroke centers with dedicated physicians and nurses experienced in thrombolytic administration and monitoring for potential complications are essential if we are to see continued growth in thrombolytic therapy use. Training in stroke assessment, familiarity with "code stroke" protocols and interventions and inservices on stroke quality measures must occur on a regular basis. Also found to be effective are weekly core stroke team meetings where individual cases can be reviewed. Not only can problems can be addressed quickly this way, but also positive reinforcement can be applied.

Bibliography: