

Really, Did a Code Stroke Simulation Improve Compliance in Patient Care Requirements?

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Purpose

Enhance the care of ischemic stroke patients by improving compliance with implementation of appropriate order sets, following protocols addressing assessment of vital signs, neuro checks, and lowering door to needle times.

Background

In 2013, ED documentation of neuro assessments on stroke patients were 13%-72% and vital signs per protocol were as low as 67%. We began looking more at ED vital Signs and neuro checks after a near miss. A patient presented with stroke symptoms, but quickly cleared. Standard VS and neuro checks were every 2 hours. The neurologist arrived and found significant worsening. The patient was still in the window to treat.

Design

The use of a model for evidence-based practice guided this staff development project.

Setting

A private, not-for-profit Level II Trauma center treating greater than 100,000 patients per year in the emergency department setting. The number of ischemic stroke patients seen is approximately 1,200 per year.



Participants/Subjects

There was a 90% participation rate of emergency department nurses who attended a yearly Blitz Skills fair. The skills fair included a required Code Stroke simulation. Blitz Skills fair were offered four times throughout the year.

Methods

ED nurses were required to attend one of four simulation skills fairs offered over a nine month period. A stroke simulation scenario was provided in the simulation lab. Groups of nurses performed each step in the care of a code stroke patient. An ED nurse facilitated each step to ensure the staff had an understanding of time related events such as calling code stroke, identifying the exact time of last seen well, obtaining CT, vital signs, labs, neuro checks, scoring the patient, and administration of Alteplase, if applicable.

Results

Metrics for fiscal year 2013 were compared to the statistics collected for the last quarter of fiscal year 2014. Implementation of the stroke order set rose 56.4%, from 43.6% to 100%. Compliance with the protocol, neuro checks improved 40% to 90% and documentation of vital signs per protocol rose from 90% to 97%. Door to needle time improved by 11 minutes.

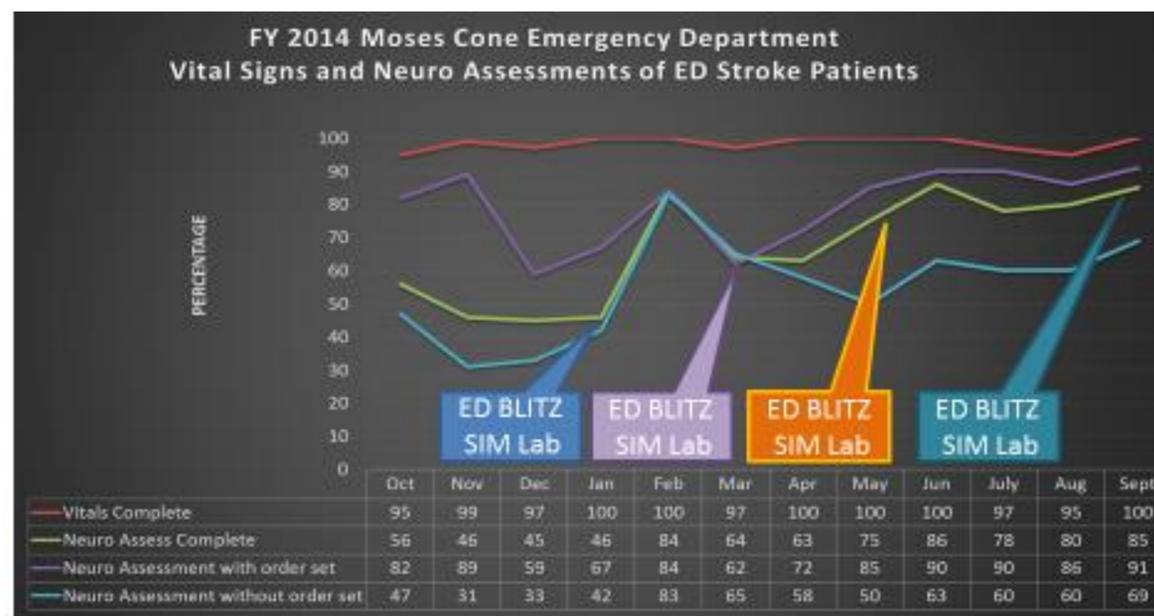
Anecdotally, the simulation clarified expectations related to performing NIH assessment/scoring. The simulation experience provided an opportunity for staff to gain a better understanding of the Code Stroke patient care process.

Conclusion

The simulation educational intervention proved to show a significant improvement in compliance in documentation of vital signs, neuro checks, implementing stroke order sets and especially improving door to needle times. The ED leadership team has recognized the significant impact to our patient care outcomes and compliance resulting from providing this simulation education. Leadership is supportive of a required sepsis simulation in 2015 for all ED staff.



Audits



References

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