2-2020

Triage Nursing Intervention Improves Stroke Treatment Rate and Times for Walk-in Strokes

Nayive Quezada
Doctors Hospital, NayiveQ@baptisthealth.ne

Ron Burke
Baptist Hospital of Miami, RonB@baptisthealth.net

Yaima Miro Gonzalez
Miami Neuroscience Institute, YaimaMi@baptisthealth.net

Maygret Ramirez
Miami Neuroscience Institute, maygretr@baptisthealth.net

Ivis Gonzalez
Miami Neuroscience Institute, IvisGo@baptisthealth.net

See next page for additional authors

Authors

Nayive Quezada, Ron Burke, Yaima Miro Gonzalez, Maygret Ramirez, Ivis Gonzalez, Daniel D'Amour, Amy Starosciak, Star Belnap, and Jayme Strauss

Triage Nursing Intervention Improves Stroke Treatment Rate and Times for Walk-in Strokes

Miami Neuroscience Institute
BAPTIST HEALTH SOUTH FLORIDA

Nayive Quezada, RN, BSN, SCRN,CEN, Ron Burke, MSN, RN, NEA-BC, CEN, Yaima Miro Gonzalez, BSN, RN, Maygret Ramirez, ARNP, MSN, FNP, SCRN, Ivis C. Gonzalez, BSN, RN, SCRN, Daniel D'Amour, BSN, RN. CEN, SCRN, Amy K. Starosciak, Ph.D., Starlie C. Belnap, Ph.D., Jayme Strauss, MSN, RN, MBA, SCRN

INTRODUCTION

Our comprehensive stroke center provides community outreach and stroke education to patients, caregivers, and community members on the importance of calling 911 in the event of a stroke. However, approximately 1/3 of our center's stroke alerts are walk-ins. With a walk-in stroke, rapid assessment is essential because the stroke response team has no information compared to information that otherwise would be provided by EMS. As such, our center developed a rapid assessment by the emergency department triage nurse, who can then activate a stroke alert.

PURPOSE

To assess whether the use of the rapid assessment improved door to stroke alert activation and door to needle (DTN).

METHODS

The change to rapid stroke assessment and stroke alert activation by triage nurses (rather than waiting for an emergency physician to assess and activate a stroke alert) was made in March 2018. Cases from one year prior to the intervention were compared to cases one year after implementation and to the current year. Differences in turnaround times (door to stroke alert activation, DTN etc.) were calculated.

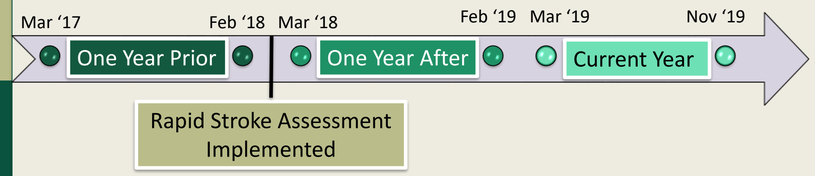


Figure 1. Time periods for data analysis

RESULTS

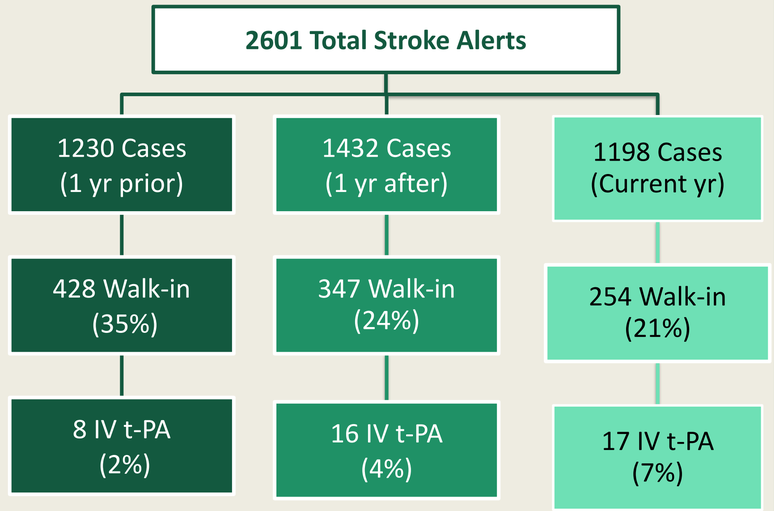
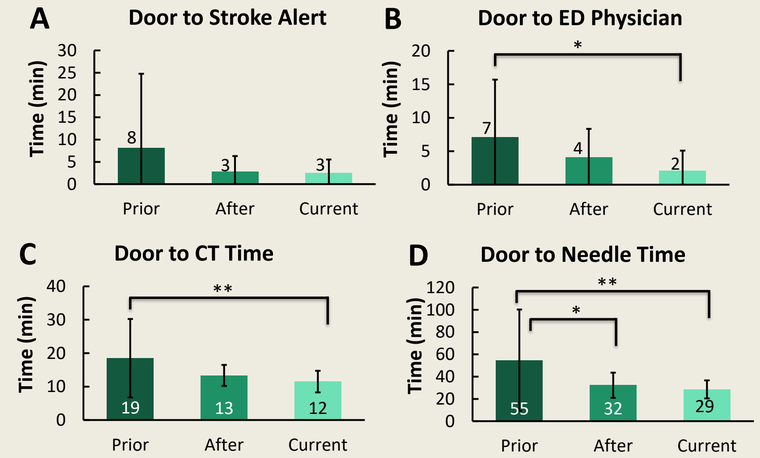


*Figure 2. S*troke alerts before and after implementation of Rapid Stroke Assessment protocols

- Door to stroke alert time remained statistically unchanged after Rapid Stroke Assessment implementation (Figure 3A).
- Door to ED physician decreased by 3 min (n.s.) one year after implementation and 5 min ($p<.05$) in the current year (Figure 3B).
- Door to CT scan decreased by 6 min (n.s.) after implementation and 7 min ($p<.01$) in the current year (Figure 3C).
- Overall IV t-PA treatment rates remained consistent, however the **door to needle (DTN) decreased** by 23 min ($p<.05$) compared to the year prior to implementation and 26 min ($p<.01$) YTD (Figure 3D).

RESULTS



* $p<.05$ ** $p<0.01$

Figure 3. Average ± SD for door to stroke alert (A), door to Emergency Department physician (B), door to CT scan (C), and DTN (D).

CONCLUSIONS

- A nursing driven initiative at Emergency Department triage was effective at improving stroke treatment rate and decreasing DTN for IV alteplase for walk-in stroke patients.
- While stroke alert activation has remained consistent, triage stroke assessment improved by 11% ($p<.01$) one year following implementation and 14% ($p<.01$) during the current year.

DISCLOSURES

There are no financial disclosures related to this study.