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STATE-OF-THE-SCIENCE STROKE NURSING SYMPOSIUM ORAL ABSTRACTS

SESSION TITLE: APPLICATION OF EVIDENCE BASED PRACTICE AND QUALITY ENHANCEMENT

Abstract NS26: Pre-hospital Stroke Evaluation Using Expanded Stroke Screening Tools

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Originally published 9 Feb 2015 | Stroke. 2015;46:ANS26

Abstract

Background and Purpose: The Cincinnati Pre-Hospital Stroke scale is a quick and accurate method for identifying stroke in the EMS setting. In 1999, Kothari et. al. demonstrated that the Cincinnati Pre-Hospital Stroke Scale (CPSS) identified 87% of acute anterior circulation strokes. We hypothesize that adding additional criteria from the NIH Stroke Scale to the CPSS will increase EMS providers' ability to recognize stroke syndromes beyond anterior circulation strokes in the EMS setting.

In Iowa, current EMS protocols use the CPSS for field stroke examinations as a minimum standard. The addition of additional elements from the NIH Stroke Scale that specifically evaluate posterior circulation should improve stroke recognition in the field. The Miami Emergency Neurological Deficit exam (MEND) specifically meets these criteria: it is based on the CPSS, and adds elements of the NIHSS that evaluate posterior circulation. This should allow EMS providers to triage and transport more patients to a primary stroke center.

Methods: A retrospective chart review was done within a 22 month period at a Joint Commission Certified Primary Stroke Center. Only patients with confirmed diagnosis of stroke were included; TIA and all other diagnoses were excluded. Patient symptoms were listed and the exam criteria for both the CPSS and MEND were applied. The vascular distribution of stroke for each patient was evaluated to confirm results. Results: 732 patients presented in the 22 month period. 468 (64%) were identified using CPSS criteria. 644 (88%) were identified using MEND criteria. This results in an increase of 176 (24%) patients who would have been recognized as experiencing an acute stroke using the MEND exam.

Conclusion: Use of an expanded stroke exam by EMS providers will result in a higher recognition rate for anterior and posterior circulation acute stroke.

Footnotes

Author Disclosures: **T. Hamm:** None. **B. Helland:** None.



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