



NEW JERSEY'S HOSPITAL SERVICE CORPORATION
4806 MEGILL ROAD • WALL TOWNSHIP, NEPTUNE, NJ 07753
PHONE: 732-919-3045 • FAX: 732-919-2735 • INTERNET: WWW.MONOC.ORG

A Non-Profit Cooperative to Improve Health Care and Reduce Members' Costs

*Presented at the 2015 National Association of EMS Physicians
Annual Meeting in New Orleans, LA*

Paramedics Ability to Determine Stroke/CVA in the Pre-hospital Setting

January 2015

Introduction: The goal was to determine paramedics' ability to identify patients exhibiting signs and symptoms of stroke. Paramedics in our system are initially trained to evaluate Stroke/CVA utilizing the Cincinnati Stroke Scale per State guidelines; however, there are no specific continuing education (CEU) requirements regarding Stroke/CVA care.

Hypothesis: Paramedics are able to accurately develop a field impression of Stroke/CVA in patients presenting with signs and symptoms of Stroke/CVA greater than 80% of the time.

Methods: A retrospective query of hospital admission records from three New Jersey hospitals was performed during the timeframe of January 1, 2011 and November 30, 2012, identifying patients diagnosed with acute stroke. Of these patients selected, 566 were seen pre-hospital by paramedics. Accurate identification or screening of stroke patients by our Paramedics was then determined from the data recorded in the pre-hospital patient care reports (PCRs). Patients with a documented primary or secondary impression of Stroke/CVA or details of Stroke/CVA signs and symptoms in the narrative of the PCR, were considered positively identified.

Results: Of the 566 patients diagnosed with Stroke/CVA, 459 (81%) had either a primary or secondary impression of Stroke/CVA, or had a descriptive narrative detailing signs and symptoms of Stroke/CVA as indicated by the prehospital PCRs. The remaining 107 (19%) had no indication within the PCR of a primary or secondary impression of stroke; or a descriptive narrative indicating the signs and symptoms of a stroke. Of the 107 patients who were not identified as Stroke/CVA in the pre-hospital environment, 17 (16%) were unconscious and could not be evaluated for Stroke/CVA. The remaining 90 patient's presentations broken down as follows: Altered mental status 41 patients (38%); General weakness 23 patients (22%); Dizziness/headache 18 patients (17%); Sick/not feeling well 8 patients (7%).

Conclusions: 81% of the patients, treated by paramedics in the field, and admitted, with a diagnosis of Stroke/CVA, were identified by the ALS provider(s). Additionally, 58 of the 107 patients (54%) who were not identified as Stroke/CVA could not have been evaluated by ALS providers using common prehospital stroke screening tools due to unconsciousness or altered mental status.