Abstract

Introduction: Comprehensive stroke education is necessary for rapid and effective diagnosis and treatment of stroke victims, especially in the prehospital and emergency department settings. Early acute stroke recognition and appropriate treatment lead to improved patient outcomes. Prehospital and hospital-based health care providers can make the difference between the opportunity for recovery, or a life of long-term disability, and even death. Advanced Stroke Life Support (ASLS®) is a one-day, evidence-based stroke course consisting of didactic lectures and interactive instruction. The sessions include video-based cases where the learners diagnose and develop a management plan for patients with strokes or stroke mimics; skills sessions where learners examine standardized patients who simulate major stroke syndromes; and an interactive game as a course summary. The purpose of this study is to evaluate the ASLS® course’s impact on knowledge of stroke diagnosis and management among prehospital and hospital-based providers.

Methods: The ASLS® course was delivered to prehospital and hospital-based providers throughout the United States. All instructors were trained in a train-the-trainer program administered by the ASLS® home site faculty. A total of 9,678 prehospital and hospital-based personnel participated in the course between November 19, 2014 and May 31, 2017. Outcomes were measured using previously validated 25-item written pre-course and post-course assessments.

Results: A total of 9,678 participants were included in statistical analyses. Using IBM SPSS Statistics, v.24, paired sample t-tests were performed on the data. Learners demonstrated a statistically significant increase in knowledge from pre- to post-course assessment, from a pre-course mean of 64.4% to a mean of 89.1% at post-course assessment (p < .001). Statistically significant increases in knowledge also occurred within both learner groups, with performance for prehospital learners rising from 63.8% to 90% (p < .001). Hospital-based learners improved from 64.8% to 88.6% (p < .001).
Conclusions: Prehospital and hospital-based providers who participated in the ASLS® one-day course significantly improved their knowledge of stroke diagnosis and management.

- Stroke
- Emergency medical services (EMS)
- Emergency care
- Nursing

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