Assessment of Emergency Medical Technicians Serving the Phoenix Metropolitan Matrix of Primary Stroke Centers

To the Editor:

Emergency medical services (EMS) personnel are integral to the effectiveness of any stroke system of care. EMS providers are the first medical contact for up to 70% of patients with acute stroke. Emergency medical technicians (EMTs) are uniquely positioned to hasten stroke care through early identification of patients and notification of their imminent arrival at the closest appropriate hospital. These critical actions allow for the earlier mobilization of in-hospital stroke teams and preparation for emergent neuroimaging. The concept of the primary stroke center (PSC) was founded on the principle of delivering acute stroke patients to facilities specifically trained and equipped to deliver immediate stroke care. In 1998, Phoenix Operation Stroke (a committee of local stroke experts supported by a division of the American Stroke Association), and the Arizona Emergency Medical Systems, Inc, began the process of establishing a matrix of PSCs. Before the implementation of the matrix in 2003, EMTs were specifically trained to recognize and manage stroke. In 2005, with the assistance and Human Subject Research Board approval of the Bureau of EMS in the Arizona Department of Health Services, we conducted an anonymous, voluntary, Internet-based survey to assess our regional EMTs’ knowledge of the identification, management, and transport of acute stroke patients to matrix PSCs. The questions on the survey were based on material from the EMS formal acute stroke training module. We received 186 of 514 responses (36%) from 16 of the 26 EMS agencies (62%) in the metropolitan area. The results revealed that 76% identified the 5 classic signs and symptoms of stroke, 69% identified the components of the Cincinnati Prehospital Stroke Scale (CPSS), 97% identified the importance of determining and recording the time of stroke symptom onset, 53% identified 3 hours as the window of opportunity for treatment with intravenous thrombolysis, 56% identified that transport to a PSC is a high priority, 71% recognized the importance of prenotification and provision of estimated time of arrival, a maximum of 67% recognized whether any given area hospital served as a PSC, and 88% were satisfied with the operations of the Phoenix Metropolitan Matrix of PSCs. The main limitation of this survey of our regional EMTs and their stroke awareness is the low overall response. We estimate that responders underwent self-selection for a higher level of stroke awareness and knowledge base. Therefore, we strongly suspect that this survey result is an overestimation of the true EMTs’ knowledge. It is encouraging that there is a high level of stroke awareness and knowledge base. Therefore, we strongly suspect that this survey result is an overestimation of the true EMTs’ knowledge. It is encouraging that there is a high level of stroke awareness and knowledge base. Therefore, we strongly suspect that this survey result is an overestimation of the true EMTs’ knowledge. It is encouraging that there is a high level of stroke awareness and knowledge base. Therefore, we strongly suspect that this survey result is an overestimation of the true EMTs’ knowledge.

References

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