The use of a stroke emergency mobile unit speeds thrombolysis and thus improves short-term outcomes, with no risk to patients’ safety.

The use of a stroke emergency mobile (STEMO) unit increases the percentage of patients receiving thrombolysis within the golden hour, producing better short-term outcomes with no risk to patients’ safety, according to a recent study.

The effectiveness of intravenous thrombolysis in acute ischemic stroke is time dependent, it was noted, with the effects likely to be highest if the time from symptom onset to treatment is within 60 minutes.

German researchers conducted the prospective controlled Prehospital Acute Neurological Treatment and Optimization of Medical Care in Stroke study of 6182 adult patients to determine the achievable rate of golden hour thrombolysis in prehospital care and its effect on outcome. A STEMO unit, equipped with a computed tomographic scanner plus a point-of-care laboratory and telemedicine connection, was deployed when dispatchers suspected an acute stroke during emergency calls. If a STEMO unit was not available, patients received conventional care. The STEMO unit is staffed with a neurologist trained in emergency medicine, a paramedic, and a technician. Thrombolysis was started if a stroke was confirmed and no contraindication was found.

The rate of thrombolysis in ischemic stroke was 32.6% when a STEMO unit was deployed and 22.0% when conventional care was administered. Among all patients who received thrombolysis, the proportion of golden hour thrombolysis was 6-fold higher after STEMO deployment. Compared with patients who had a longer time from symptom onset to treatment, there were no higher risks of 7- or 90-day mortality in patients who received golden hour thrombolysis and they were more likely to be discharged home.

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