MOBILE STROKE UNIT PILOT

Purpose: To study whether a mobile stroke unit improves patient outcomes in a tiered stroke response system with multiple primary and comprehensive centers geographically located throughout the county.

Definitions:

Mobile Stroke Unit (MSU): An ambulance that has a Computerized Tomography (CT) scanner capable of performing head CTs in the community and prior to arriving at a hospital.

MSU Team: An organized group of health care providers that specialize in stroke care and may include, but not limited to a radiology technician, registered nurse, paramedic, emergency medical technician, and neurologist.

MSU Program: A predetermined plan that requires an MSU and MSU team who respond in an ambulance and provide high level, on-scene, acute stroke care. The program is approved by the EMS Agency to be deployed in the prehospital setting to provide rapid assessment of suspected acute stroke patients by utilizing a mobile computed tomography (CT) scanner (MSU) able to transmit images to a remote site or on scene and provide a hard copy to receiving hospitals. Further elements of the program can include treatment with intravenous tissue plasminogen activator (Alteplase), hemostatic agents, and blood pressure medications and determination of appropriate hospital destination depending on CT scanner findings and consultation with closest receiving facility to support the suspected stroke patient.

San Mateo’s Mobile Stroke Unit (MSU) Program:

1. General Requirements, a MSU Program shall:
   a. Be approved by the EMS Agency
   b. Have a MSU that has been appropriately licensed as emergency response vehicle (i.e. California Department of Motor Vehicle or California Highway Patrol).
   c. Designate a MSU Medical Director who shall be responsible for the functions of the MSU. The MSU Medical Director shall be a physician on the hospital staff, licensed in the
State of California and Board Certified in Neurology, Neurosurgery or Neuroradiology by the American Board of Medical Specialties.

d. Staff the MSU with a stroke trained nurse, emergency medical technician, paramedic, and a CT technician. A stroke neurologist will also be included as part of the team. The neurologist services may be provided in person or via telemedicine consult.

e. Implement a quality improvement program for program monitoring and evaluation. Program results will be shared with the local EMS Agency and San Mateo County Stroke QI Committee quarterly.

f. Designate a MSU Program Manager who shall be responsible for ensuring timely and accurate data collection and who works with the MSU Medical Director to develop a data collection process and a quality improvement program.

g. Transport the patient to the closest appropriate stroke facility, based on pre-existing county protocols, regardless of the results of patient evaluation or treatment rendered by the MSU unless redirected by receiving facility.

h. Provide copies of all staff evaluation, lab results, ePCR, and imaging to the receiving hospital upon delivery of the patient

2. The MSU Program shall develop activation and dispatch procedure in collaboration with the 9-1-1 jurisdictional ambulance provider and Public Safety Communications that is approved by the EMS Agency.

3. A written agreement between an Exclusive Operating Area (EOA) Provider and the MSU Program shall be in place. The agreement shall address, at minimum, the following:
   a. Staffing
   b. Billing
   c. Documentation Sharing
   d. Insurance and Indemnity

4. The MSU Program shall develop policies and procedures that address patient care and include the following: patient assessment and identification of patients requiring MSU services; indications for CT procedures for transmission and reporting, indications and contraindications for Alteplase (based on current American Heart Association/American Stroke Association guidelines), documentation of all evaluation and treatment (including lab results and copies of imaging), and reporting of adverse events. In addition, the MSU Programs shall develop policies that address data collection, dispatch, and interaction between staff of the MSU and the 9-1-1 jurisdictional ambulance provider and first responders.

5. Approval Process of a MSU
   a. MSU Programs shall submit a letter of intent to the EMS Agency outlining the following:
• Qualifications of the composition of MSU program  
• Proposed response area  
• Deployment and dispatch plan for integration with the 9-1-1 jurisdictional provider  
• Data collection and quality improvement process  
b. If the MSU will be used to transport stroke patients, submit a copy of the written agreement with the 9-1-1 Jurisdictional Provider/EOA Provider.  
c. The EMS Agency will review and verify the submitted information. If the submitted information is satisfactory, the EMS Agency will approve the MSU program.  
d. Institutional Review Board approvals from all participating hospitals are to be shared with the EMS Agency.  
e. After completion of the study program, the MSU program will submit a comprehensive report to the EMS Agency. The EMS Agency will use the report along with consultation with the Stroke QI Committee in deciding whether to approve the MSU for continued use in San Mateo County once the pilot period is over.