



American Stroke Association®

International Stroke Conference

ISC 21 Late-Breaking Science

LB 2

Embargoed until 11 a.m. CT/12 p.m. ET Wednesday, March 17, 2021

Contact Information: James C. Grotta, M.D., director of stroke research at the Clinical Institute for Research and Innovation, Memorial Hermann – Texas Medical Center, Houston, may be reached at 713-500-7047 or james.c.grotta@uth.tmc.edu.

Session Assignment

[ME I - Opening Main Event](#) (Presentation #: LB2 ; Speaking Time: 3/17/2021 11:12:00 AM - 3/17/2021 11:24:00 AM)

Title

Benefits Of Stroke Treatment Delivered By A Mobile Stroke Unit Compared To Standard Management By Emergency Medical Services (BEST-MSU Study)

Author Block

James C Grotta, MEMORIAL HERMAN HOSPITAL TMC, Houston, TX; Stephanie Parker, UNIVERSITY OF TEXAS MEDICAL SCHOOL, Houston, TX; ritvij bowry, UT Health Neuroscience, houston, TX; Nicole R Gonzales, McGovern Medical Sch, Houston, TX; William Jones, Univ of Colorado, Aurora, CO; Anne W Alexandrov, UTHSC-MEMPHIS TN, Memphis, TN; Babak Navi, New York Presbyterian Hosp, New York, NY; May Nour, UCLA Depts of Neurology-Radiology, Los Angeles, CA; Ilana Spokoyny, Sutter Health, SAN FRANCISCO, CA; Jason Mackey, Indiana Univ, Indianapolis, IN; Asha Jacob, Univ of Texas Houston Sch of Public Health, houston, TX; Patti Bratina, UTHealth, Houston, TX; Brandi Schimpf, Univ of Colorado Hosp, Aurora, CO; Michael Eisshofer, Univ of Colorado Health, Aurora, CO; Janice miller, Univ of Colorado Health, Colorado springs, CO; Andrei V Alexandrov, UT HEALTH SCIENCE CENTER, Memphis, TN; james rhudy, UT Health Science Ctr, Memphis, TN; Matthew E Fink, NEW YORK PRESBYTERIAN HOSPITAL, New York, NY; Joshua Z Willey, COLUMBIA UNIVERSITY, New York, NY; CARLA SHERMAN, Weill Cornell Med, New York, NY; Jeffrey L Saver, GEFFEN SCHOOL OF MEDICINE AT UCLA, Los Angeles, CA; Kevin Brown, UCLA HEALTH, Los Angeles, CA; Bryan Villareal, UCLA HEALTH, Los Angeles, CA, signal hill, CA; Joey English, Nobl Barazangi, Sutter Health, San Francisco, CA; Sarah Collins, IU Health, Fishers, IN; Kelly Silnes, IU Health, Fishers, IN, Indianapolis, IN; Vivek Misra, IU Health, Fishers, IN, Indianapolis, IN, Houston, TX; Mengxi Wang, IU Health, Fishers, IN, Indianapolis, IN, Houston, TX, Houston, TX; Noopur Singh, Univ of Texas Health Science Ctr, Houston, TX; Suja S Rajan, Univ of Texas Hlth Sc Ctr, Houston, TX; Jose-Miguel Yamal, UTHealth Sch of Public Health, Houston, TX

Disclosure Block:

J.C. Grotta: Research Grant; Modest; Genentech. Other; Significant; Frazer Ltd. S. Parker: None. R. bowry: None. N.R. Gonzales: Other; Modest; Abbott. W. Jones: None. A.W. Alexandrov: Research Grant; Modest; National Institutes of Health. B. Navi: None. M. Nour: None. I. Spokoyny: None. J. Mackey: Research Grant; Significant; IUSM/IUH Strategic Research Initiative, NIH/NINDS R01NS30678. Research Grant; Modest; IU CTSI PDT. Research Grant; Significant; IU CTSI KL2 (NIH, UL1TR001108), IUH VFR (365). Other; Significant; PCORI BEST-MSU. A. Jacob: None. P. Bratina: None. B. Schimpf: None. M. Eisshofer: None. J. miller: None. A.V. Alexandrov: Speaker/Speaker's Bureau; Modest; Genentech, Inc. M.E. Fink: None. J.Z. Willey: None. C. Sherman: None. J.L. Saver: Other; Modest; Abbott, Medtronic, Stryker, Cerenovus, Rapid Medical. K. Brown: None. B. Villareal: None. J. English: Honoraria; Significant; Stryker Neurovascular. N. Barazangi: None. S. Collins: None. K. Silnes: Employment; Significant; Indiana University School of Medicine. V. Misra: None. M. Wang: None. N. Singh: None. S.S. Rajan: Research Grant; Significant; Genentech Inc. J. Yamal: None.

Abstract Content

Mobile Stroke Units (MSUs) are ambulances equipped with a CT scanner, point of care laboratory testing, and personnel trained to diagnose and treat tPA-eligible acute stroke patients in the pre-hospital setting, and triage them for Endovascular therapy (EVT). Several studies have shown that MSUs speed the delivery of tPA and EVT, but how much overall impact MSUs have on stroke outcomes is uncertain. We aimed to carry out a phase III

prospective multicenter cluster randomized (by weeks) intention to treat (ITT) study with blinded assessment of both trial entry as well as clinical outcomes comparing tPA-eligible patients managed by MSUs vs Standard Management (SM). We hypothesized that compared to SM, MSUs will improve disability measured 90 days after stroke, and health care resource utilization over the next year. Here we report the 90 day primary outcome and relevant pre-specified secondary and safety outcomes. The comparison of health care resource utilization will be published separately.