

BEST-MSU Study- Benefits of Stroke Treatment Delivered by a Mobile Stroke Unit Compared to Standard Management by Emergency Medical Services

Purpose: To compare the 90-day stroke outcomes of tPA-eligible patients managed by a mobile stroke unit (MSU) to standard management (SM) by Emergency Medical Services (EMS).

Trial Design: Phase III alternating week (MSU or SM), multicentered, cluster-controlled, blinded assessment at entry and outcomes, comparing the 90-day utility-weighted modified Rankin Scale (uw-mRS) of tPA-eligible patients managed by MSU vs SM.

1047 patients from 7 U.S. sites, 617 MSU group and 430 SM group

Primary Endpoint: 90-day uw-mRS

	Total n=1047	Mobile Stroke Unit n=617	Standard Management n=430
% of tPA eligible who were treated with tPA		97.1%	79.1%
% of patients treated within 60 minutes of last known well		33%	3%
Time from last known well until tPA treatment		72 minutes P<0.001	108 minutes P<0.001
90-day <ul style="list-style-type: none"> • mean uw-mRS score • mRS 0-1 		0.726, P=0.002 53%, p<0.001	0.657, P=0.002 43%, p<0.001
<p>Results: MSU management results in substantially less disability for stroke patients who qualify for tPA treatment compared to standard management by EMS, and this is likely due to faster stroke treatment, particularly within the first hour.</p> <p>For every 100 patients treated with an MSU rather than SM:</p> <ul style="list-style-type: none"> • 27 will have less disability • 11 more will be disability free (mRS 0-1) <p>No increase in endovascular treatment or speed in the MSU group compared with SM. No safety issues...9% mimics and 2% sICH in each group</p>			

Results reflect the data available at the time of presentation.

