

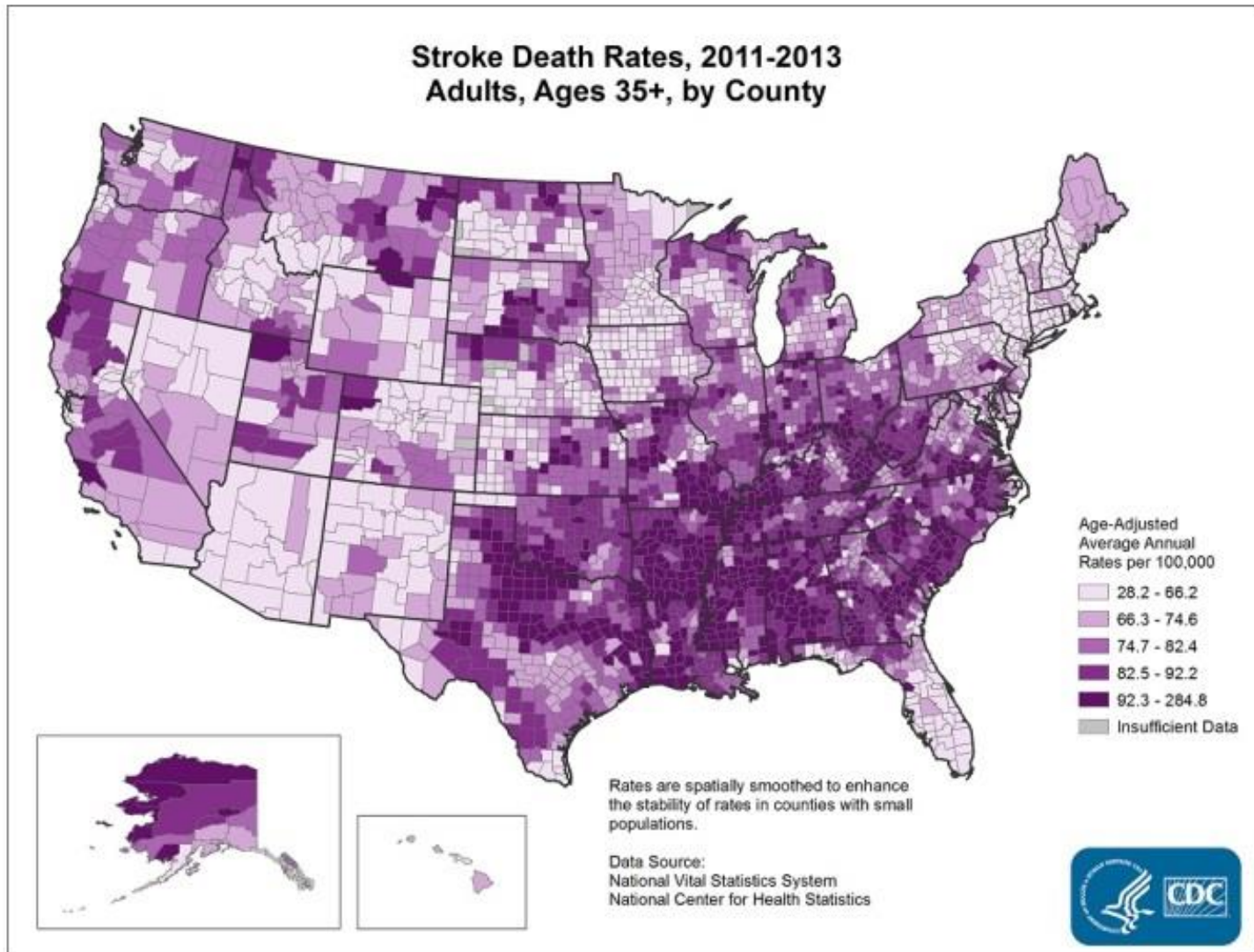
Introduction to Mobile Stroke Unit



Stroke Team

University of Louisville School of Medicine

Background: Stroke Belt



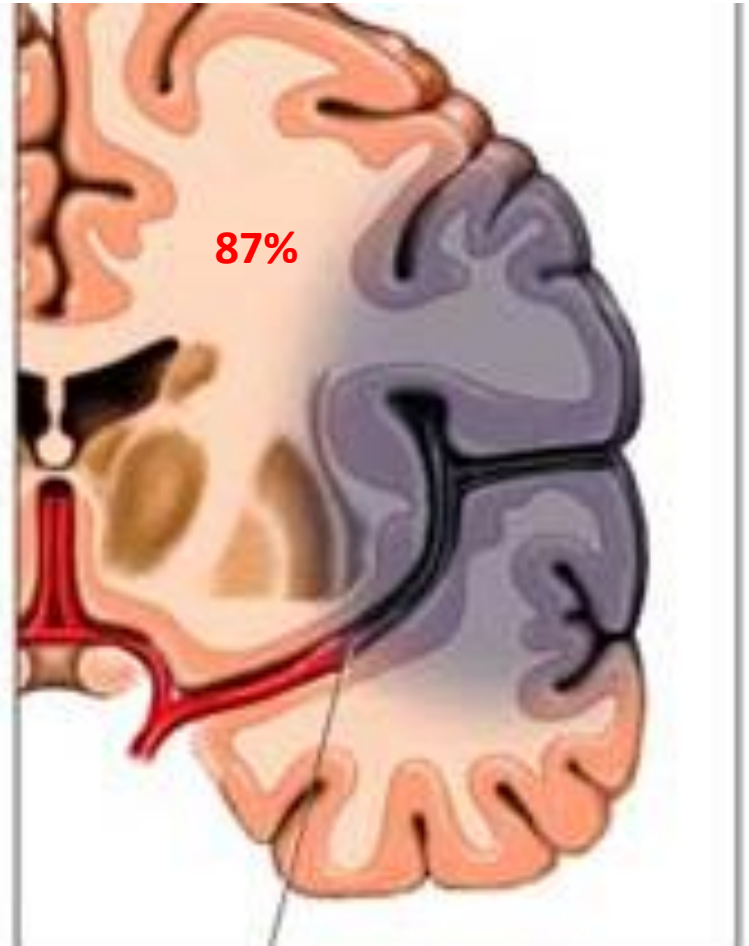
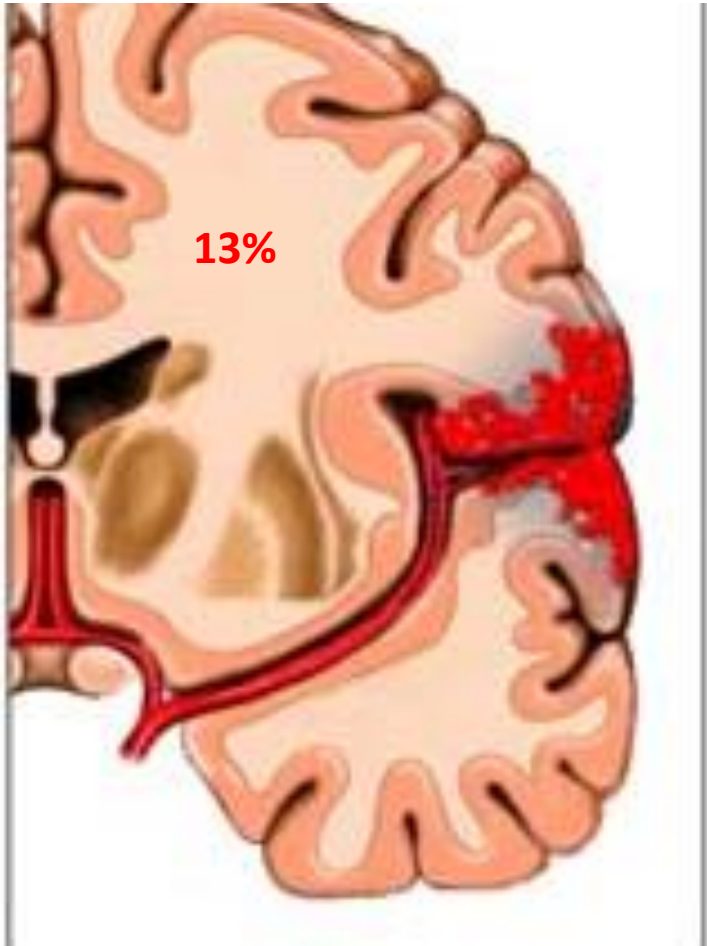
Stroke is a Vascular Event



Stroke Types:

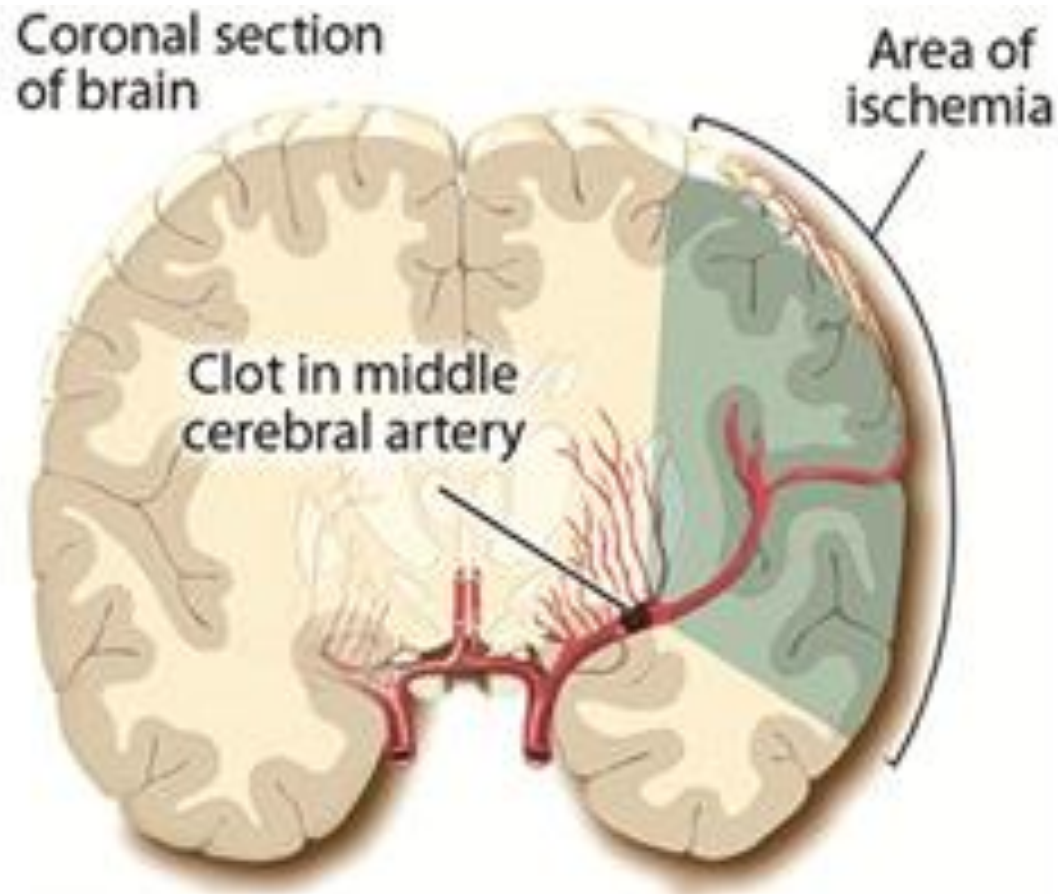
Hemorrhagic

Ischemic





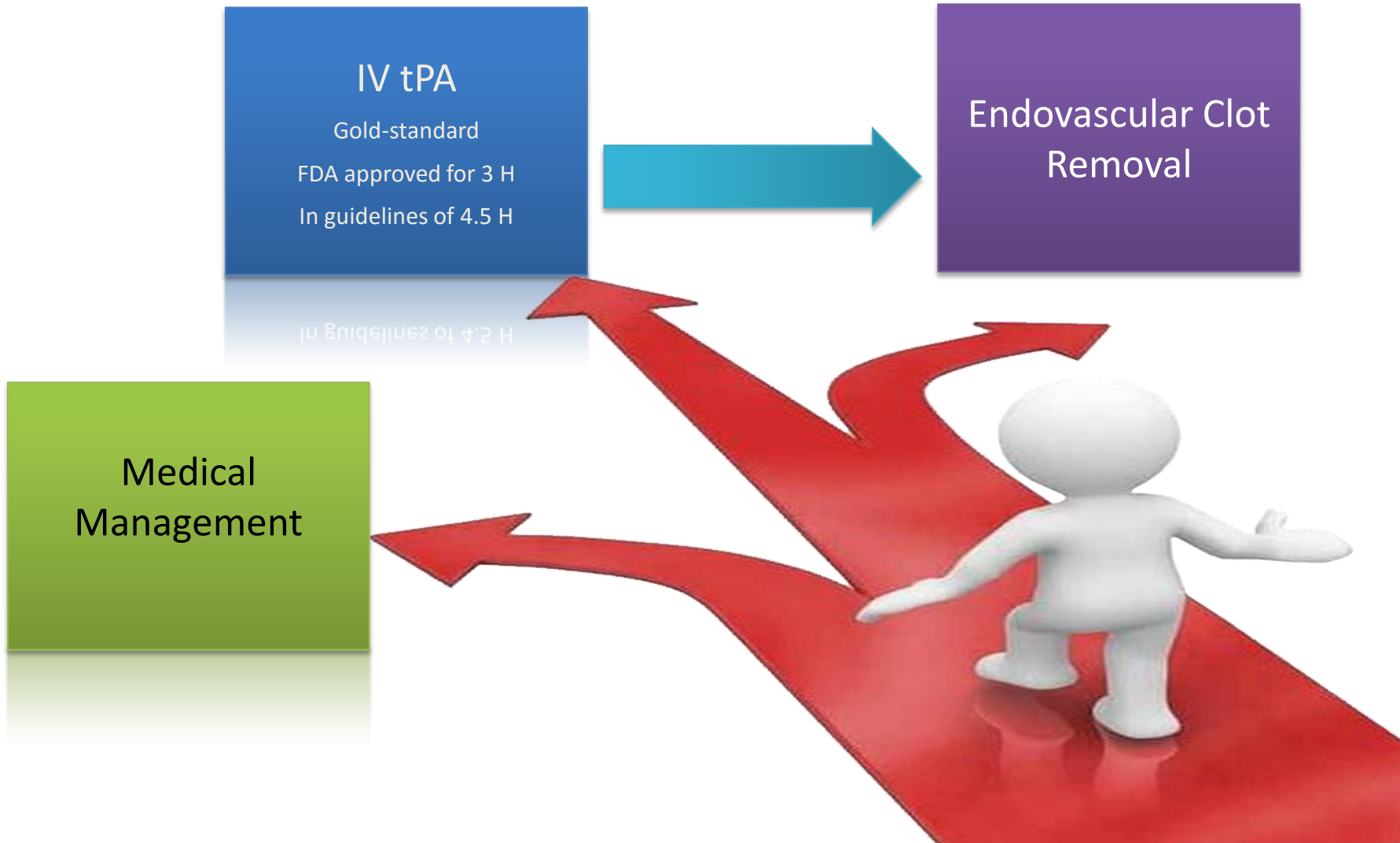
Clot Blocking Blood Vessel



Lose 2 million neurons every minute of a stroke

Treatment Options AIS

What we know: time matters!



IV-tPA (Activase)

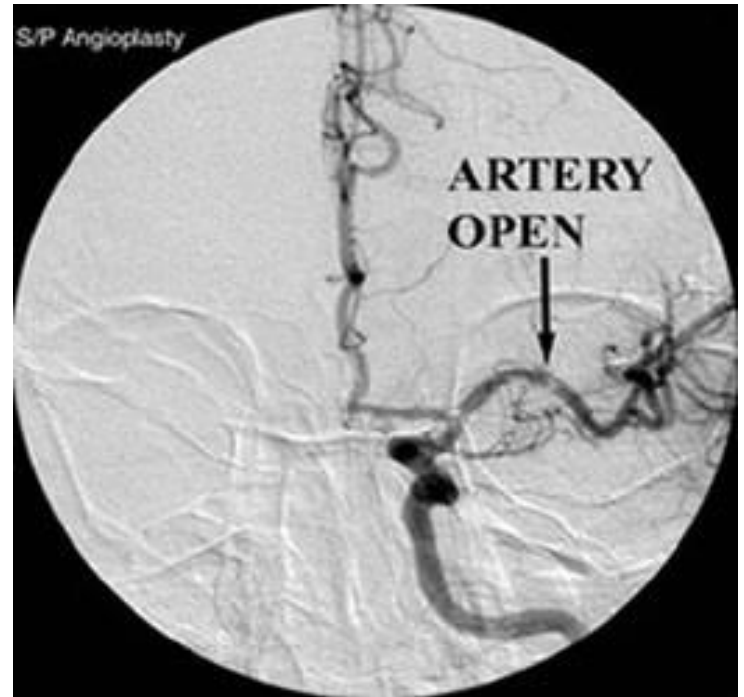
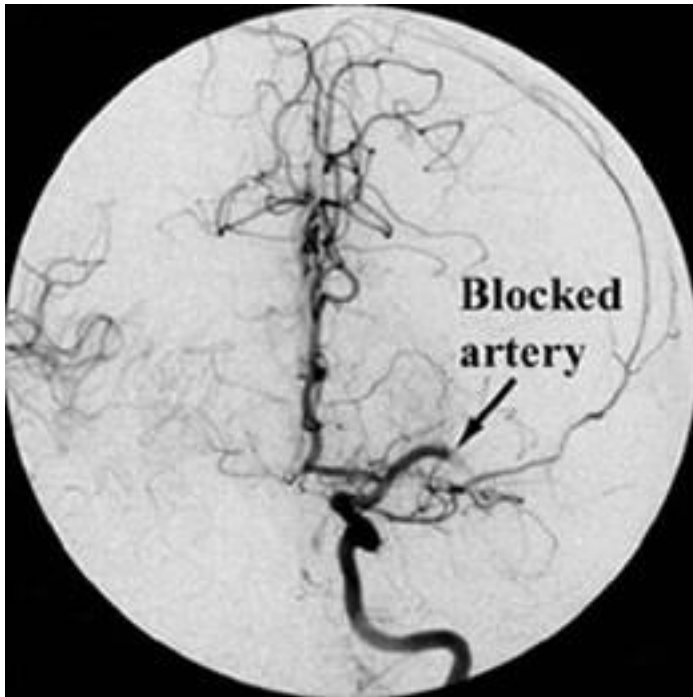
The sooner administered, the better the outcome

Nationally only **3 to 8.5** percent of potentially eligible patients receive tPA

Patients don't get to the hospital soon enough

Journal of the American Medical Association (JAMA)

Before and After



Historical Perspective

2003 Began in Germany

Initially fraught with connectivity issues

2011-2013 German Outcomes Study

Reduced door-to-drug time by 36 minutes and increased tPA utilization rate to 50 percent in acute ischemic stroke patients with no increase in adverse events

Ebinger, M. et.al., *JAMA*, 2014. 1622-1631

Stroke Emergency Mobile



Early US Sites

UT Houston
Cleveland Clinic
UT Memphis
University of Colorado
Rush University
New York-Presbyterian

Now ~ 20 in US



Mobile Stroke Units in US

Highly specialized staff, equipment and medications

Equipped with a portable CT scanner capable of imaging the patient's brain to determine the type of stroke

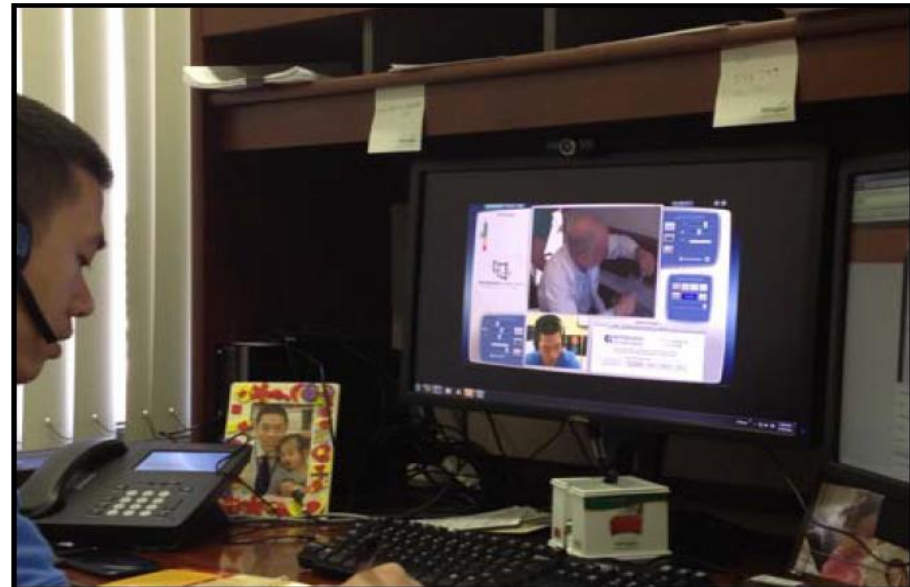
Stroke Team examines patient by telemedicine



UT Houston Mobile Stroke Unit

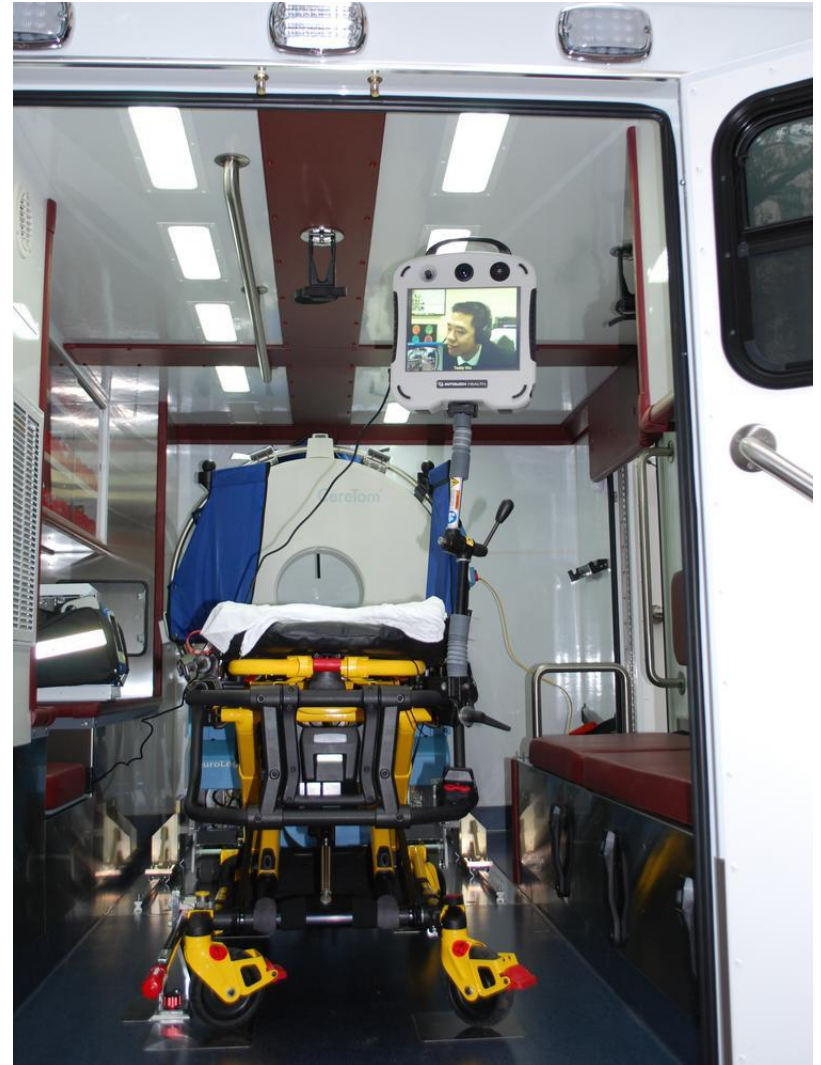
According to the James Grotta, MD, Director of the UT Houston Mobile Stroke Unit half of patients treated with tPA within the **first hour** after onset of stroke symptoms will recover with little or **no deficits**.

He has treated over 400 patients in the MSU

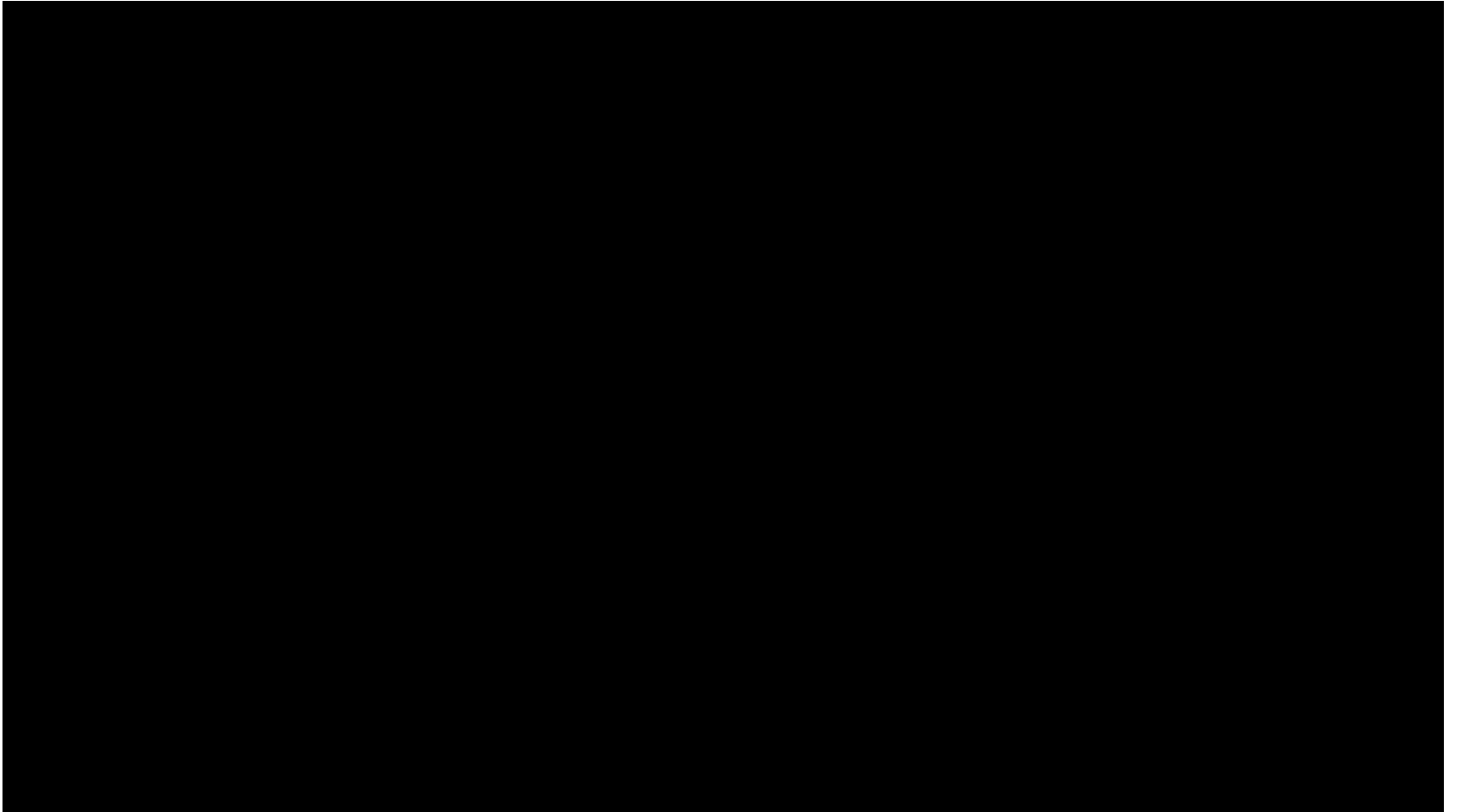


Functions of the MSU

- Examine Patients by telemedicine
- Perform CT scan
- Determine type of stroke
- Test blood samples on board
- Deliver IV-tPA if candidate
- Deliver other medications
- Develop treatment plan
- Transport to Stroke Center



Cleveland Clinic Experience



Questions?

