The Future of EMS Stroke Care

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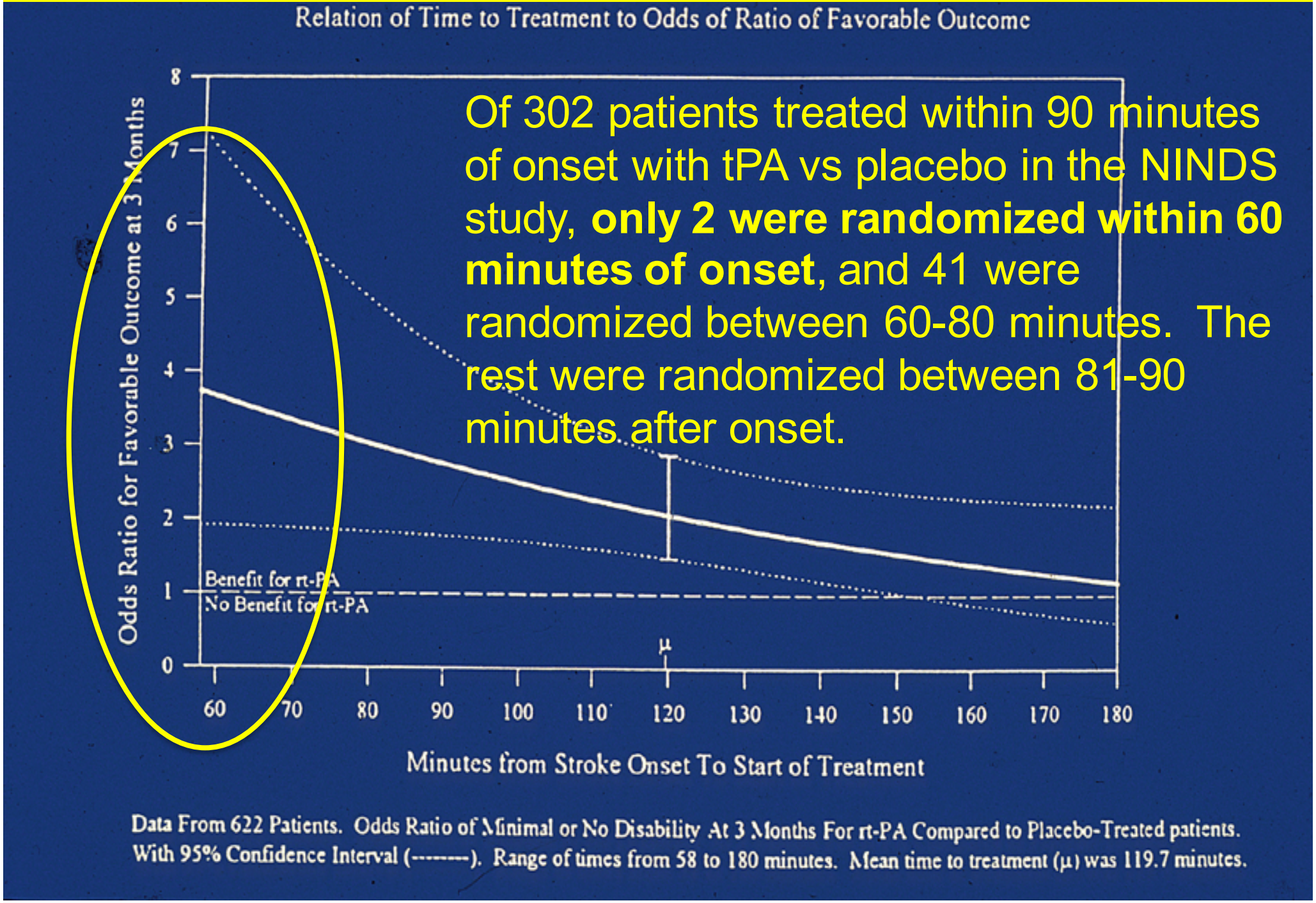
Will ultra early treatment make patients better?



Of 302 patients treated within 90 minutes of onset with tPA vs placebo in the NINDS study, **only 2 were randomized within 60 minutes of onset**, and 41 were randomized between 60-80 minutes. The rest were randomized between 81-90 minutes after onset.

Steps in Establishing the MSU

Staffing

Who is inside?

- Licensed Vascular Neurologist with an ACLS Certification
- Critical Care/ER trained Registered Nurse with ACLS certification
- Licensed Paramedic with ACLS certification
- Licensed CT radiology technician with BLS certification
- Telemedicine Doc!!

BEST-MSU enrollments- First Two Years

(as of December, 2016)

- **190** Treated with rt-PA (2.85/wk, 135/yr)
- 90 More Transported (but not treated)
  - ICH
  - Sz
  - Too mild
  - Uncertain onset time
  - Other (tumor, cerv. spond.)
- Avg. on-scene time- **21 min**

- Symptom onset to t-PA treatment
  - **42%** 0-60 min (vs 0% control)
  - **37%** 61-80 min (vs 20% control)
  - 21% 81-270 min (vs 80% control)

Cost Projection

Cost of CT Scanner	$ 375,000
Ambulance Retrofit	$ 60,000
TM equipment	$ 30,000
Cost of added paramedic and TM coverage X 5 yrs	$1,000,000
Total fixed and continuing costs for 1 MSU X 5 yrs	$1,465,000

vs

Less than the cost to sustain an endovascular program!

Lifetime cost per stroke: $ 200,000

Therefore, cost neutral if:

1 MSU results in 7 more patients completely recovering over 5 yrs