



KANSAS INITIATIVE FOR  
STROKE SURVIVAL  
A PROJECT BY AND FOR KANSANS

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# Acute Treatment in Mild Stroke and Stroke Mimics

“First Tuesdays” Lecture Series

# Introduction and Goal of “First Tuesdays”

- Sabreena Slavin MD – Vascular Neurologist and Neurohospitalist at KU School of Medicine
- Didactic lecture series as part of the Kansas Initiative for Stroke Survival
- Updates in Practice and FAQ’s on Acute Stroke Care
- 20 minute didactic, 10 minutes for questions/discussion.

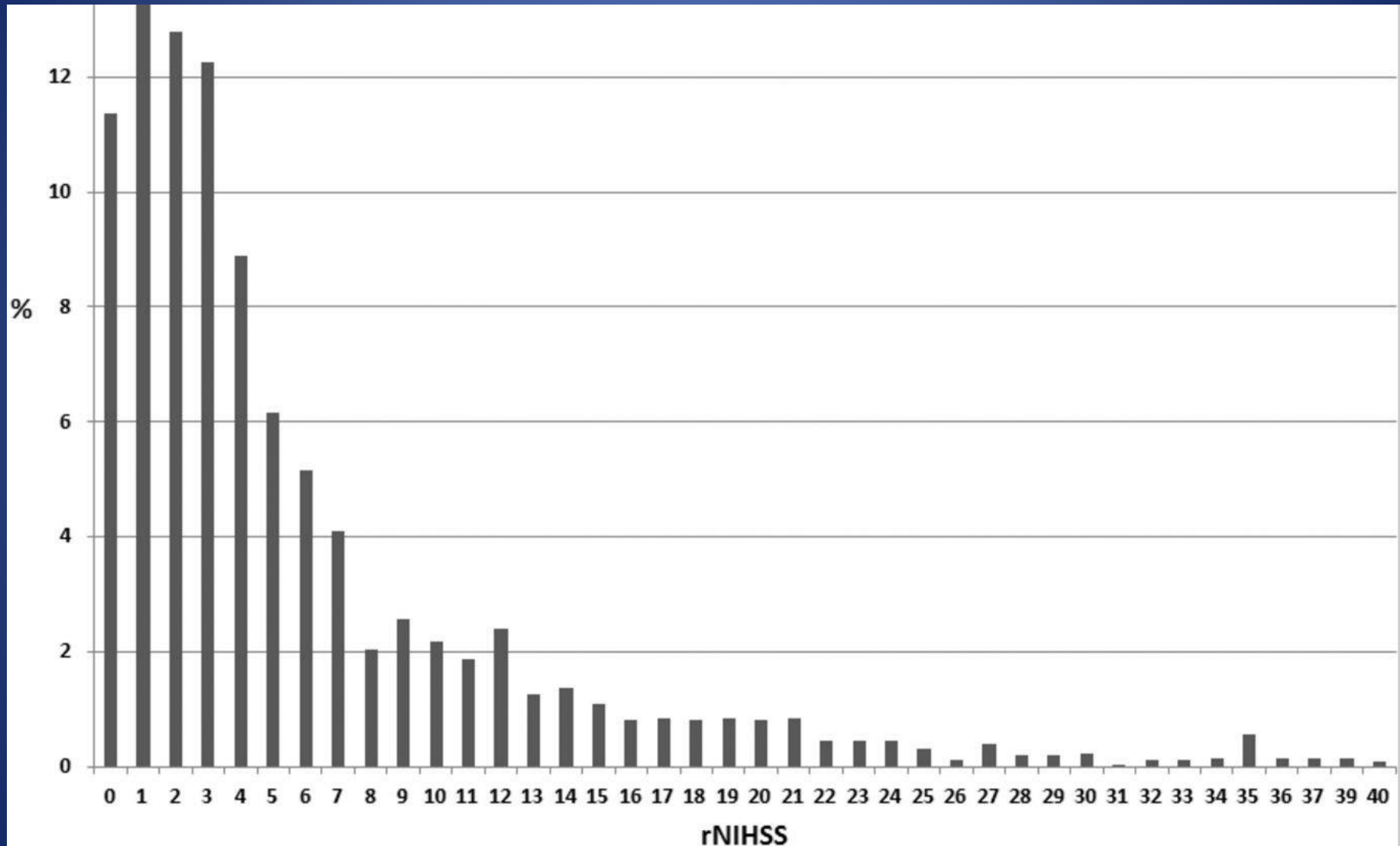
# Review of Acute Stroke Interventions

- IV alteplase (tPA) for all patients who have **disabling symptoms** of acute stroke
- Mechanical thrombectomy: **only for large vessel occlusions (LVO)**. Only hospitals with capabilities (eg: comprehensive stroke center) can perform thrombectomy.
  - A higher NIHSS (10 or more) can be indicative of a large vessel occlusion.
  - Diagnosed with CTA head/neck

# How to define “mild” stroke

- NIHSS?
- mRS?
- imaging?
- **“disability” vs no disability?**

# Majority of strokes have lower NIHSS –



# Disability based criteria:

- NINDS rt-PA study found that regardless of definition of “mild” or “minor” stroke, patients in this category can be treated with tPA.<sup>1</sup>
- **Stroke guidelines:** LOE A, COR I indicating that benefit of IV alteplase is well established of adult patients with **disabling** stroke symptoms regardless of age and stroke severity.<sup>2</sup>

# What is “disabling”?

- Hemianopsia in patient who drives/works (NIHSS 2)
- Moderate-severe aphasia (NIHSS 2)
- Weakness affecting ability to work (NIHSS 0 and up)
- Vertigo affecting gait (NIHSS 0)

# Symptomatic ICH in mild stroke after tPA

- Retrospective analysis of Get With The Guidelines Stroke registry revealed that for patients with NIHSS of 0-5 (mild group), rate of **symptomatic ICH at 36 hours was only 2.2%<sup>1</sup>**, compared to 6% from previous NINDS study<sup>2</sup>



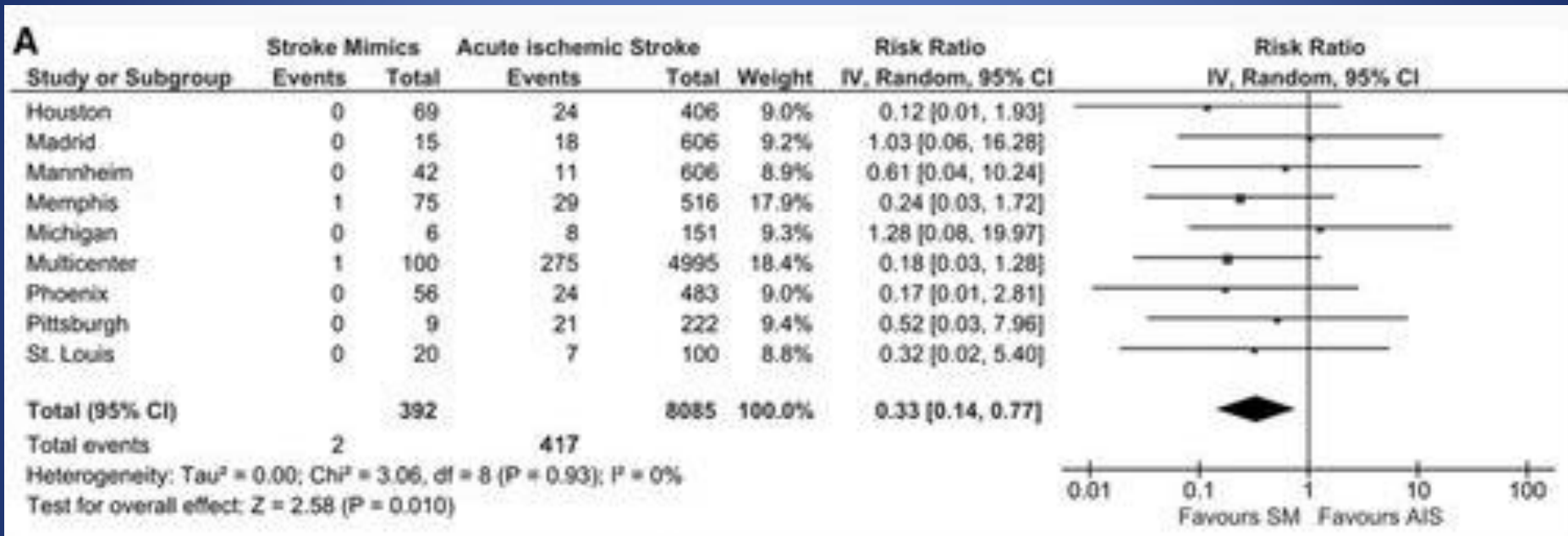
# Stroke mimic examples

- Seizures with postictal hemiplegia (Todd's paralysis)
- Peripheral vestibular syndromes (acute labyrinthitis, BPPV, etc.)
- Encephalopathy due to toxic or metabolic causes
- Conversion disorder/psychogenic
- Complicated migraines with neurological deficits

# IV tPA in stroke mimics

- In patients who were given IV tPA after cardiac MI, there was a rate of ICH in 0.72%<sup>1</sup>
- Stroke studies have found similar rates of ICH after tPA in patients who were not having acute stroke – in a meta-analysis of 9 studies which included **392 patients with stroke mimics, symptomatic ICH occurred in 0.5%**<sup>2</sup>

# sICH in Mimics vs Strokes



# Bottom Line

- Guidelines and clinical practice favor giving IV tPA if patients meet inclusion criteria despite low NIHSS or concern for stroke mimic.
- If giving IV tPA in these cases, always discuss the risks/benefits with the patient and family, and have them play a role in their own decision making.

# Questions?

- Call for help anytime!
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