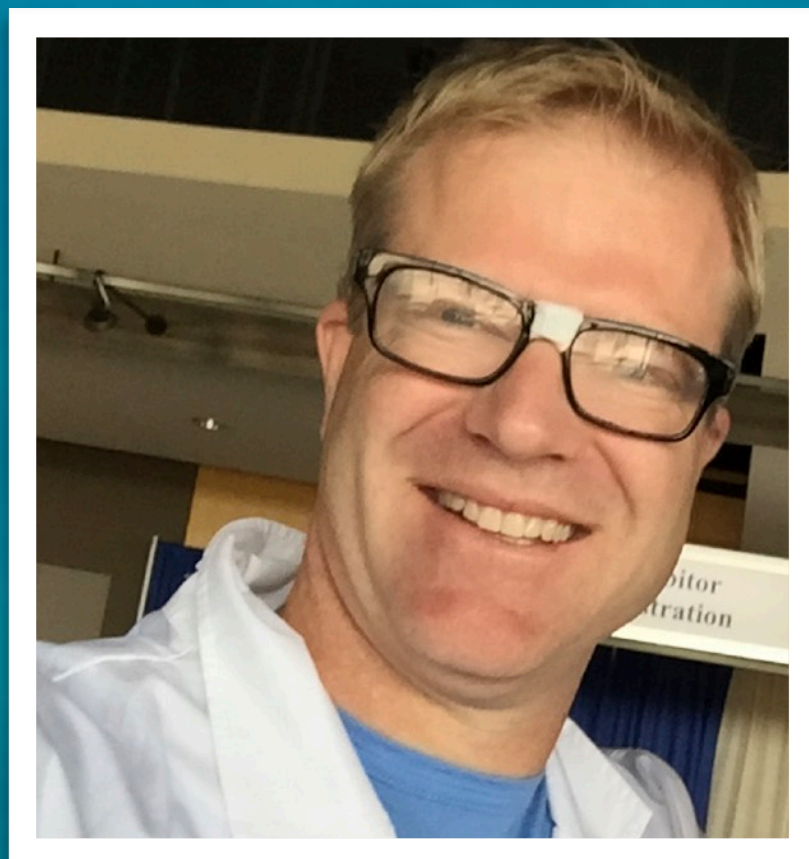


SGEM#488

It's Just a Minor Stroke, Should We Still Lyse?



October 3, 2025



Broome, Australia

Case Scenario

THE SKEPTICS' GUIDE TO EMERGENCY MEDICINE



**Dani is in your Medium Sized Rural ED with Stroke
Should she get a dose of tPA?**

The background is a blurred image of a person in a white lab coat, likely a doctor, holding a tablet. Overlaid on this are several blue hexagonal icons containing medical symbols: a thermometer, a stethoscope, a first aid kit, a syringe, a person silhouette, a female symbol, a heart, a microscope, a pill, and a shield with a cross. A large, semi-transparent blue horizontal bar spans the middle of the image, serving as a backdrop for the main title.

STROKE

Minor Ischemic Stroke
NIHSS ≤ 5



A healthcare professional, likely a nurse or doctor, is shown from the chest down to the waist. They are wearing blue scrubs and blue nitrile gloves. A silver stethoscope is draped around their neck. They are holding a bright red rectangular sign with both hands, which has the word "STROKE" written on it in large, white, bold, sans-serif capital letters. The background is a solid, dark teal or greyish-blue color.

STROKE

Minor Ischemic Stroke
NIHSS \leq 5

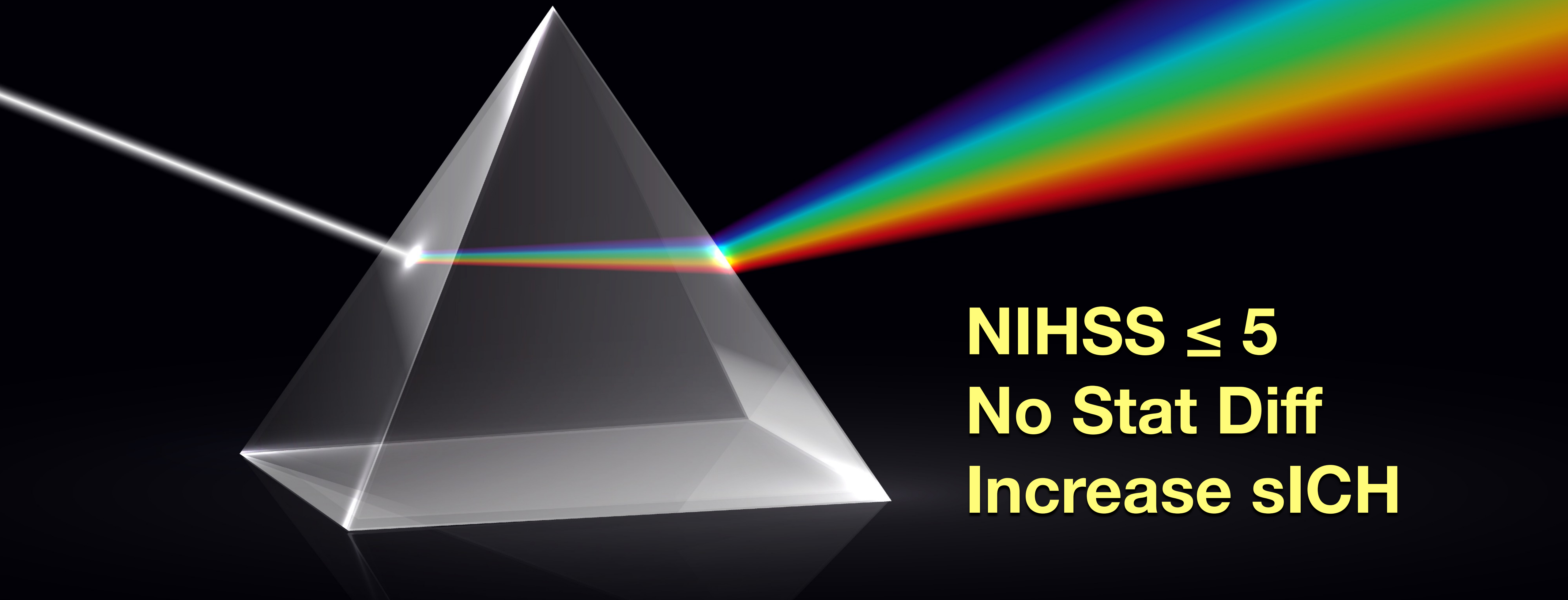


**Mr.
Clean**

Berkhemer et al
NEJM 2015
N=500
ARR 14% NNT 7



PRISMS 2018



NIHSS ≤ 5
No Stat Diff
Increase sICH

Viele et al JAMA 2016
Guyatt et al BMJ 2012
Tyson et al Trials 2016

Lack of Power



**In adults with MIS,
does IVT improve
functional outcomes
compared with
non-thrombolytic
standard care?**



RESEARCH ARTICLE

Meta-Analysis of Randomized Controlled Trials on IV Thrombolysis in Patients With Minor Acute Ischemic Stroke

Mohamed F. Doheim,¹ Thanh N. Nguyen,² Yunyun Xiong,³ Hui-Sheng Chen,⁴ Nirav R. Bhatt,¹ Yongjun Wang,³ and Raul G. Nogueira^{1,5}

Neurology[®] 2025;105:e213863. doi:10.1212/WNL.00000000000213863

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Doheim et al Neurology 2025

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Population

Adults
NIHSS ≤ 5
<12 hr
RCTs

Intervention

IV
Lytics

Comparison

Non-Lytics
Standard Care

Outcome

Good Neuro
(mRS 0-1)
mRS 0-2
Mortality
ICH



“IVT does not confer improved functional outcomes among patients with minor strokes and can be associated with higher odds of sICH and mortality”.

Dr. Mohamed F Doheim

Checklist





Four RCTs

N = 3,364

Age ~56 to 80 Baseline

NIHSS medians ~2 to 4



Key Results

**Increase Odds
sICH
Mortality**

**IV Lysis Not
Superior To
Non-Lysis**

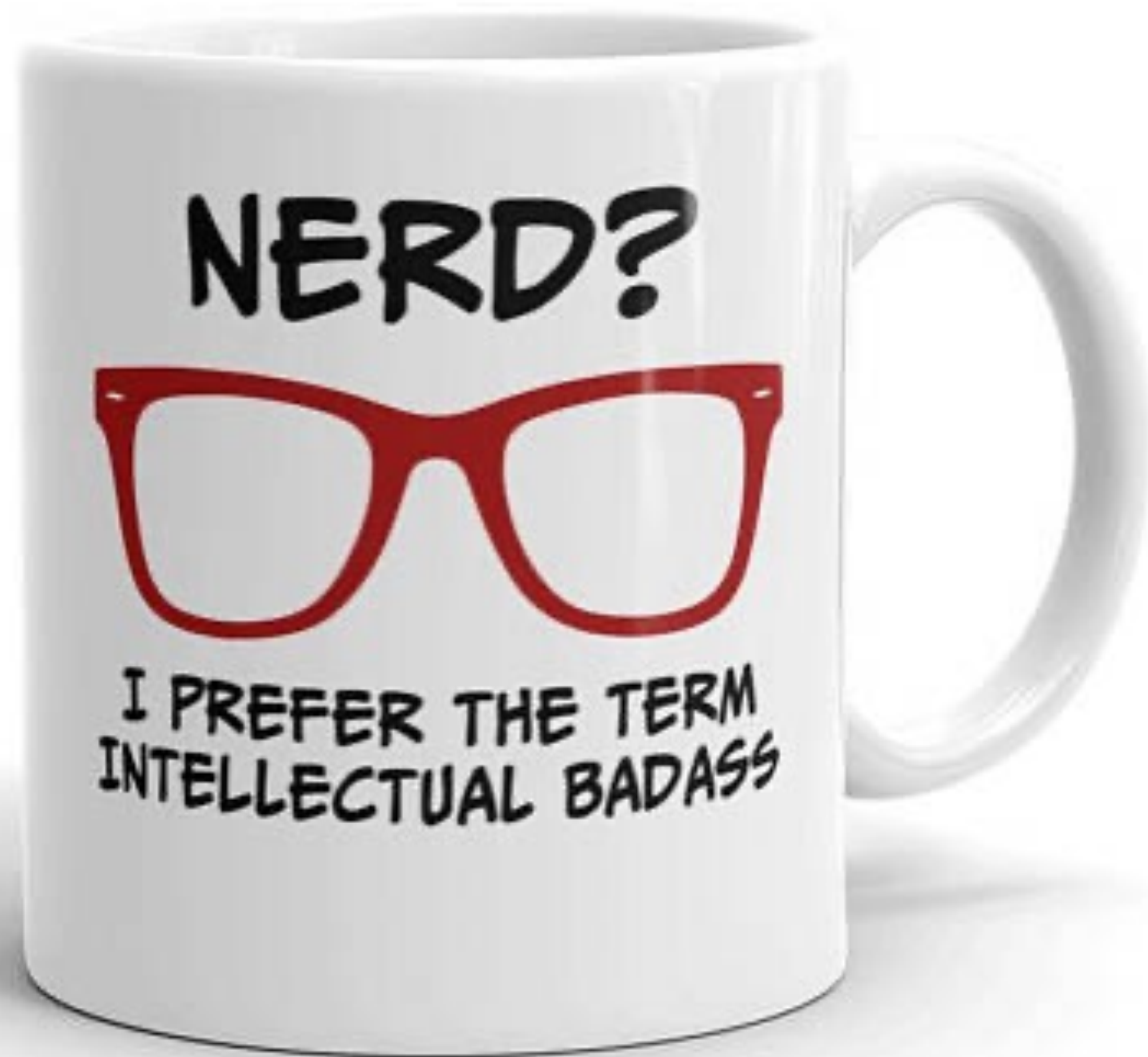
Primary Outcome:

- mRS 0-1: OR 0.85 (95% CI 0.70–1.03)

Secondary Outcomes:

- mRS 0–2 at ~90 days: Worse IVT
- sICH: Increased IVT
- Any ICH: Increased IVT
- 90-day Mortality: Increased IVT
- Recurrent Stroke: No Stat Diff

Talk Nerdy To Me





Sausage Machine



Rural Stroke Application



Ya Can't Fix Asymptomatic.
But you can make it worse!



Not All Minor Strokes are Minor

BIAS!

?

?

SGEM Bottom Line

**For minor, nondisabling
ischemic stroke, IV
thrombolysis has no proven
functional benefit & increases
sICH & mortality compared
with non-thrombolytic care.**



Case Resolution

THE SKEPTICS' GUIDE TO EMERGENCY MEDICINE



**Dani is in your Medium Sized Rural ED with Stroke
Should she get a dose of tPA?**



Clinical Application

What Do I Tell Patients?



Keener Contest



Dr. Cindy Bitter



Remember to be
skeptical of anything
you learn, even if you
heard it on the
**Skeptics' Guide to
Emergency Medicine.**