



**Current Updates on Ischemic Stroke, ICH, and SAH**



Edward P. Sloan, MD, MPH, FACEP



**European Society for Emergency Medicine**

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**4<sup>th</sup> EuSEM Congress**  
**Crete, Greece**  
**October 5-7, 2006**



Edward P. Sloan, MD, MPH, FACEP




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**Chicago, IL**

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**Thank you to**  
**AstraZeneca Neuroscience**  
**for their support of these**  
**educational programs**

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Overview

**Mission Statement**

- Patients with neurological emergencies deserve quality emergency care.
- Quality scientific research.
- Case-oriented, evidence-based medical education on optimal acute neurological care.
- Use of technology to break down space and time barriers.
- Advocacy.

Education

**Educational Activities to Date**

- 60 Meetings
- 180 Speakers
- 380 Lectures
- 350+ Lectures posted on the FERNE website
- 13 Lectures posted on the EMedHome website
- 97% Evaluations good or excellent
- 4800+ EM professionals
- 7500+ contact hours over 9 years

Education

**Branded Product: Case-based Learning**

- Case presentation
- Key Clinical Questions
- Introduction, the clinical disease state
- Optimal ED management strategies
- Patient outcome
- References, Annotated bibliography
- Key Learning Points
- Questions and answers

Education

**Web-based Learning: Video Slideshows**

- Audio, video and slide content
- Able to access individual slides for specific content
- MS Producer, viewable with Windows Media Player

Education


**Web-based Learning: Slide Lectures**

Download or view online


Education

**Web-based Learning: Webcasting**

- Live simulcasts using Centra Symposium



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Education

**Handheld Software: HandiStroke Rx**

HANDi Stroke Rx Available free from [www.ferne.org](http://www.ferne.org)

- Written at Mount Sinai, New York
- Funded by a FERNE grant
- NIH Stroke Scale
- tPA Inclusion/Exclusion criteria
- tPA dosage calculator
- Continuation of care orders



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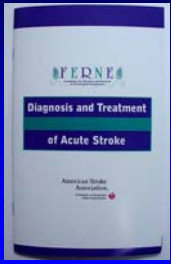


Education


**Educational Materials**

**Acute Stroke Materials**

- Developed a handbook and companion CD Rom
- Published Spring 2004
- Collaboration included American Stroke Association and France Foundation




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Education

**Web-based Learning: EMedHome.com**

- FERNE generated content
- CME can be obtained via the EMedHome website
- Slides and audio



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Education

**Web-based Learning: Abstract Search**

Topic specific abstract searches



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Research

**Directed Neurological Emergencies Research Grant**

- \$ 25-50,000 per grant
- Emergency Medicine Foundation (EMF)
- Promotes new knowledge relating to the diagnosis and acute management of neurological emergencies
- Directed to Emergency Medicine researchers

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Research

### Seed Grants / Unsolicited Proposals

- Up to \$5,000 grants
- Promote new research
- Help secure future funding
- Identify the support source
- Specific area of interest
- Available for all EM practitioners

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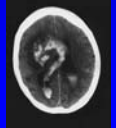


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## Update on the Care of Emergency Department Transient Ischemic Attack Patients



Edward P. Sloan, MD, MPH, FACEP



## ED Transient Ischemic Attack Patient Management: *Can At-risk Ischemic Stroke Patients Be Identified?*


Edward P. Sloan, MD, MPH, FACEP



## Conclusions


- Future imaged based TIA definition?
- Isolated visual or sensory symptoms suggest low short term risk for stroke
- Pace and setting of work up dependent on perceived short term risk
- Prediction rules require prospective validation

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## ED Transient Ischemic Attack Patient Management: *What Role for Outpatient Evaluation and Disposition?*

Edward P. Sloan, MD, MPH, FACEP



## Conclusions

- Yes. An outpatient evaluation of ED TIA patients can occur successfully.
- ED evaluation to include H & P, labs, EKG, CT Head (non-contrast), carotid doppler (CTA) evaluation
- Must be able to detect clinically treatable causes of TIA and CVA (carotid occlusion, cardioembolic sources)
- Important work given reimbursement trends (prevent admits)

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## ED Ischemic Stroke Patient Management: Optimal Diagnostic and Treatment Strategies



Edward P. Sloan, MD, MPH, FACEP



## Stroke Care within the 3 Hour IV tPA Window: Why IV tPA, or What Alternatives?



Edward P. Sloan, MD, MPH, FACEP



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## Key Clinical Questions

- What is the optimal use of tPA given its reported efficacy and clinical effectiveness?
- If stroke patients present within 3 hours, should other therapies besides IV tPA be considered?

Edward P. Sloan, MD, MPH, FACEP



## Conclusions

- IV tPA can and should be used based on the NINDS trial, phase IV data, meta-analysis data, and the NINDS reanalysis
- IV tPA should not be delayed in eligible patients within 3 hours for other potentially useful therapies

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## Stroke Care After the 3 Hour IV tPA Window: What are the Diagnostic and Therapeutic Options?



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## Key Clinical Questions

- What are the optimal neuroimaging modalities in non-IV tPA patients?
- What pharmacologic, interventional radiology, and operative techniques should be considered after (or during) the three hour IV tPA window?

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## Conclusions

- It is often possible to identify the occluding stroke lesion and the amount of salvagable ischemic penumbra using CT angiography
- There are multiple options, including IA thrombolysis, mechanical clot retrieval, and stenting of obstructing lesions

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## Stroke Patient Care in the Prehospital and ED Settings: Should EMS Triage & Inter-hospital Transfer Occur?



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## Key Clinical Questions

- Should pre-hospital stroke patients be directly triaged by EMS to specialty stroke centers?
- When should the ED inter-hospital transfer of stroke patients to specialty stroke centers occur?

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## Conclusions

- At this time, the data does not support direct triage of stroke patients to specialized centers
- It is optimal to first enhance the stroke patient care in all acute care hospitals
- Inter-hospital transfer should take place if a “higher level of care” is needed or a “higher level of cure” is found

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## Current Updates on Ischemic Stroke, SAH, & ICH



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## Stroke Patient and New Stroke Therapy Assessment: ED NIHSS & Stroke Scales Use



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## Key Clinical Questions

- What is the role of the NIHSS in the ED evaluation and Rx of stroke pts?
- How can other stroke scales be simply utilized in order to assess the efficacy of stroke therapies?

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## Emergency Department Neuroprotection: What are Optimal Strategies in Ischemic Stroke Patients?



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## Key Clinical Questions

- What neuroprotection strategies prevent secondary brain injury following stroke?
- What is the information from the SAINT-I (and SAINT-II) clinical trials regarding the potential use of neuroprotectants such as NXY-059?

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## The Diagnosis of SAH in ED Headache Patients: What Roles for CT Neuroimaging & Lumbar Puncture?



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## Key Clinical Questions

- What are optimal headache patient diagnostic and treatment strategies based on current guidelines ?
- What is the role of LP (and CTA) in low risk headache patients whose CT is negative for blood?

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## ED Hemorrhagic Stroke Patient Management: What Role for Operative Intervention and Factor VIIa?



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## Key Clinical Questions

- What is the role of operative intervention in ICH patients given the results of the STICH trial?
- What is the optimal management of anti-coagulated ICH patients and the potential role of factor VIIa?

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## Housekeeping

- Content via website
- CME via the congress (US conversion in US)
- Evaluations...Please provide us feedback!
- Survey: help us to help you!
- Want more information?
  - [www.ferne.org](http://www.ferne.org) website
  - [ferne@ferne.org](mailto:ferne@ferne.org)

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*Thank you to  
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## FERNE & Industry Support

- Collaboration in providing quality education programs
- Disease state education critical
- Independent grant process in US
- Unrestricted educational grants
- Content development independent of grant source

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## Thank You

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- EuSEM
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- All of the FERNE supporters
- AstraZeneca International and their staff
- All of you

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*Thank you.*

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