



## ***Optimizing ED Ischemic Stroke Patient Care***

### **Stroke Patient and ED Stroke Therapy Assessments: What does every emergency physician need to know about the NIHSS & other stroke scales?**

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#### **Learning Objectives**

- Discuss how the NIHSS should be utilized by emergency physicians in assessing ischemic stroke patients in the Emergency department.
- Determine what emergency physicians need to know about stroke scales when evaluating stroke therapies that could be utilized in treating ED ischemic stroke patients.

#### **Background**

Although the NIHSS is the accepted industry standard for evaluating stroke patients, its use in the ED is variable. Lack of expertise, the time it takes to complete it, and poor understanding of how it influences decisions such as the use of tPA in treating acute ischemic stroke patients all impact its utility in the ED. Because the NIHSS was utilized to assess tPA use in the NINDS clinical trial, and because stroke neurologists communicate stroke severity using this scale, it is important to fully understand how the use of this scale can be optimized in the ED.

Equally important is having an understanding of how to utilize scales such as the Barthel Index (BI) and Modified Rankin Scale (mRS) when assessing stroke therapies that can be used in the ED. For example, it is possible using data from the NINDS clinical trial of tPA to assess how many patients will have the best clinical outcome following tPA use as compared to the number that might sustain a symptomatic ICH. This “number needed to treat” data is important as ED physicians consider the use of all stroke therapies in the managing ED stroke patients.

#### **Key Clinical Questions**

What is the role of the NIHSS in the ED evaluation and treatment of ischemic stroke patients?

How can other stroke scales be simply utilized by EM practitioners in order to assess the clinical effectiveness of all available ED ischemic stroke therapies?