



Speaking the Same Language: The Role of Stroke Scales in the Emergency Department Evaluation of Stroke Patients

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Learning Objectives

- Discuss the role of the NIHSS in the ED management of ischemic stroke patients.
- Determine the relevance of the Modified Rankin Scale and the Barthel Index in the interpretation of clinical trials that assess new stroke therapies.
- Evaluate patient outcomes using stroke scales in the major ischemic stroke clinical trials.

Background

In treating ischemic stroke patients, emergency physicians must be able to assess the severity of the stroke symptoms in order to accurately determine the risk/benefit ratio associated with the use of therapies such as IV tPA. The NIH Stroke Scale (NIHSS) is the primary assessment tool used for evaluating acute stroke patients in the ED. Understanding how the score on the NIHSS relates to prognosis with or without therapy is important to the both the EM clinician evaluating the patient and the neurology consultant. As such, it is important to know how this scale can be used to make decisions related to early reperfusion and other neuroprotection therapies.

As ischemic stroke clinical trials are published that report the clinical efficacy of new therapies that may be utilized in the ED, the patient outcomes and proposed treatment benefit are most often reported using the Modified Rankin and the Barthel Index. EM physicians need to have an understanding of these scales in order to have an understanding of the potential clinical benefit of any new ED ischemic stroke therapy.

Dr. Bunney will discuss the role of the NIHSS in the assessment of acute ED stroke patients with respect to the use of thrombolytic therapies and other therapies that provide neuroprotection. In addition, he will discuss how ischemic stroke clinical trials can be interpreted by EM physicians through an understanding of the various stroke outcome scales and their implication for patient benefit with the use of new stroke therapies.

Key Clinical Questions

What is the role of the NIHSS in the clinical evaluation of ED stroke patients?

How can the potential benefit of new stroke therapies be accurately assessed through a better understanding of the Modified Rankin and Barthel Index from the major stroke clinical trials?