BACKGROUND AND PURPOSE: The diversity of available outcome measures for acute stroke trials is challenging and implies that the scales may be imperfect. To assist researchers planning trials and to aid interpretation, this article reviews and makes recommendations on the available choices of scales. The aim is to identify an approach that will be universally accepted and that should be included in most acute trials, without seeking to restrict options for special circumstances.

METHODS: The article considers outcome measures that have been widely used or are currently advised. It examines desirable properties for outcome measures such as validity, relevance, responsiveness, statistical properties, availability of training, cultural and language issues, resistance to comorbidity, as well as potential weaknesses. Tracking and agreement among outcomes are covered.

RESULTS: Typical ranges of scores for the common scales are described, along with their statistical properties, which in turn influence optimal analytic techniques. The timing of recovery on scores and usual practice in trial design are considered.

CONCLUSIONS: The preferred outcome measure for acute trials is the modified Rankin Scale, assessed at 3 months after stroke onset or later. The interview should be conducted by a certified rater and should involve both the patient and any relevant caregiver. Incremental benefits at any level of the modified Rankin Scale may be acceptable. The modified Rankin Scale is
Contemporary outcome measures in acute stroke research: choice of primary outcome measure.

Published on UAB School of Public Health (http://www.soph.uab.edu)

imperfect but should be retained in its present form for comparability with existing treatment comparisons. No second measure should be required, but correlations with supporting scales may be used to confirm consistency in direction of effects on other measures.

DOI

10.1161/STROKEAHA.111.641423

Alternate Journal

Stroke

PubMed ID

22426313