Neurologic Outcome Measures CPG: Berg Balance Scale and StrokEdge II





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BERG BALANCE SCALE: Integration of this core measure with the StrokEDGE II

Last week, we took a "deeper dive" into the Core Outcome Measure- the Berg Balance Scale (BBS). We reviewed use of the BBS score to interpret and draw a conclusion about balance, track progress, and/or educate your patient. As a follow up, please see this video of a full administration of the BBS, and how the PT educates the patient about her results.

Berg Balance Scale

These week, we also continue a look at the BBS through other ways in which a PT may thoughtfully select other measures in conjunction with this test.

The Berg Balance Scale is recommended to evaluate sitting and standing static and dynamic balance. In acute care, a client can potentially score very low on this measure, including scoring a "0" for the baseline score. This would occur if the patient needs assistance for all sitting and standing balance, for example. If this occurs, consider that the following measures from **StrokEDGE II** may provide a more sensitive measure of lower level mobility (ie. trunk control or bed mobility):

- 1. Postural Assessment Scale for Stroke Patients:
 https://www.sralab.org/rehabilitation-measures/postural-assessment-scale-stroke. Consider that the section for "Changing a Posture" will capture aspects of bed mobility performance.
- 2. Trunk Impairment Scale: https://www.sralab.org/rehabilitation-measures/trunk-impairment-scale. This scale is performed with the patient in sitting and targets components of trunk movement.

These tests would provide a baseline score of trunk control or bed mobility. As you observe or reassess improvement, the BBS should be implemented to capture change from the initial score of 0.

Imagine that this patient transitions from acute to inpatient rehabilitation, and the BBS is measured 1 week post-stroke, with a score of 18/56. This score change of 18 points can be noted as an improvement from baseline, and concurrently act as the baseline score for future retest during the inpatient stay. After 2-3 data points are collected, the rate and type of progress can be concluded and may inform the patient's prognosis.

In contrast to the acute care scenario above, a patient can also score very high on the BBS. In this case, consider that completing the *core measures as a set* will be informative. The Functional Gait Assessment will be more sensitive in detecting impairments in balance because it includes multiple walking items including dual motor tasks, reduced vision, and tasks calling for dynamic single leg support. The Activities-specific Balance Confidence Scale can capture a person's perceived comfort levels in a variety of home and community activities which call for dynamic balance.

In looking at the **StrokEDGE II**, the participation level of the ICF can also be explored through the **Stroke Impact Scale**, assessing perceived difficulty in several types of daily activities.

http://www.kumc.edu/school-of-medicine/preventive-medicine-and-public-health/research-and-community-engagement/stroke-impact-scale/sis-16.html

Another StrokEDGE II measure you might consider is the **BESTest** to explore reactive balance, which may be impaired even though a patient scored high on the BBS. https://www.sralab.org/rehabilitation-measures/balance-evaluation-systems-test

In summary, the implementing the Berg Balance Scale and other recommended core measures can be of value in exploring additional measures for your patient with stroke. Different measures may thoughtfully be selected at different points of time to best capture metrics and show progress. Lastly, the recommended core measures and the StrokEDGE II can both be resources in making the most appropriate clinical decisions for your patient as he/she progresses through the rehabilitation continuum.

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