Background: The Balance Evaluation Systems Test (BESTest) was recently created to allow the development of treatments according to the specific balance system affected in each patient. The Brazilian version of the BESTest has not been specifically tested after stroke. Objective: To evaluate the intra- and inter-rater reliability and concurrent and convergent validity of the total score of the BESTest and BESTest sections for adults with hemiparesis after stroke. Method: The study included 16 subjects (61.1±7.5 years) with chronic hemiparesis (54.5±43.5 months after stroke). The BESTest was administered by two raters in the same week and one of the raters repeated the test after a one-week interval. Intraclass correlation coefficient (ICC) was calculated to assess intra- and interrater reliability. Concurrent validity with the Berg Balance Scale (BBS) and convergent validity with the Activities-specific Balance Confidence scale (ABC-Brazil) were assessed using Pearson’s correlation coefficient. Results: Both the BESTest total score (ICC=0.98) and the BESTest sections (ICC between 0.85 and 0.96) have excellent intrarater reliability. Interrater reliability for the total score was excellent (ICC=0.93) and, for the sections, it ranged between 0.71 and 0.94. The correlation coefficient between the BESTest and the BBS and ABC-Brazil were 0.78 and 0.59, respectively. Conclusions: The Brazilian version of the BESTest demonstrated adequate reliability when measured by sections and could identify what balance system was affected in patients after stroke. Concurrent validity was excellent with the BBS total score and good to excellent with the sections. The total scores but not the sections present adequate convergent validity with the ABC-Brazil. However, other psychometric properties should be further investigated.

Keywords
Keywords, stroke, psychometric properties, outcome, rehabilitation.