

## Bedside Clinical Methods Useful as Screening Test for Aspiration in Elderly Patients with Recent and Previous Strokes

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### Abstract

**Introduction:** This study was undertaken to ascertain the usefulness of clinical screening tools for dysphagia in a heterogeneous group of older stroke patients. The usefulness of bedside clinical assessment tools for detecting dysphagia on different consistencies of feeds was also studied. **Materials and Methods:** Fifty patients referred to a speech therapist for the assessment of possible dysphagia were recruited. The clinical tools studied included the water swallow test, the oxygen desaturation test and the combination of both tests (termed "clinical aspiration test"). The outcomes of the clinical assessments were compared with a fiberoptic endoscopic examination of swallowing (FEES) conducted at the same sitting. Fifty patients underwent an examination of their ability to swallow 50 mL of water in 10-mL aliquots. They underwent a FEES with different food consistencies by a speech therapist and oxygen saturation with pulse oximetry was monitored during the procedure. Oxygen desaturation of more than 2% was considered to be clinically significant. **Results:** The water swallow test had a sensitivity of 79.4% and specificity of 62.5% for the detection of aspiration, with a positive predictive value (PPV) of 81.8% and a negative predictive value (NPV) of 58.8%. The oxygen desaturation test had a sensitivity of 55.9% and a specificity of 100% with PPV of 100% and NPV of 51.6%. When both tests were combined, a sensitivity of 94.1% and a specificity of 62.5% was attained, with PPV of 84.2% and NPV of 83.3%. Using the clinical assessment test, we were able to pick up 3 aspirators who would otherwise have been missed if they were assessed with the water swallow test using thin fluids alone. **Conclusion:** Simple clinical assessment tools can be used to screen for dysphagia in a heterogeneous group of older patients with stroke disease, and clinical testing using feeds of different consistencies should be considered.

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**Key words:** Aged, Cerebrovascular accident, Deglutition disorders, Oximetry

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