Read & Watch: Lecture Summary

Dr. Ana Cantón Blanco, MD, PhD.
Specialist in Endocrinology and Nutrition. Head of the Clinical Nutrition Unit at the University Clinical Hospital of Santiago de Compostela, Spain. Assistant Professor of Medicine, Endocrinology, School of Medicine, University of Santiago de Compostela, Spain

Discussing the scientific evidence supporting the EAT-10 validity and its use in routine clinical practice

Speaker biography

Dr. Ana Cantón, MD, PhD. obtained her Medical Degree (MD) in 1992 at the University of Santiago de Compostela. She developed her residency in Endocrinology and Nutrition at the Hospital Vall d´Hebron, Barcelona (1993-1996). She received a grant from the British Council in 1996 and spent a fruitful period at the St Bartholomew´s Hospital, London (1997-1998). She obtained her Doctorate of Philosophy (PhD) in 2001 at the Universitat Autònoma de Barcelona. She is Senior Consultant in Endocrinology and Nutrition and Head of the Clinical Nutrition Unit at the University Clinical Hospital of Santiago de Compostela. She is Assistant Professor of Medicine, Endocrinology, at the School of Medicine at the University of Santiago de Compostela. She is the author of several scientific publications and book chapters that are indexed. She has been a speaker in several national and international congresses and scientific meetings.

Nestlé HealthScience

Abstract

Oropharyngeal dysphagia (OD) is a highly prevalent medical condition with severe complications such as dehydration, malnutrition, and respiratory infections. Oropharyngeal dysphagia (OD) is a highly prevalent medical condition with severe complications such as dehydration, malnutrition, and respiratory infections.

Recognition of dysphagia in the medical community is very poor[1], health services rarely screen older patients for dysphagia and do not train their staff to diagnose it[2]. Symptoms of dysphagia such as coughing may not be recognized as a problem by older subjects themselves or their caregivers and are often considered a trivial finding[2]. Among others, these are the reasons why many patients are diagnosed during hospitalization, after developing respiratory infections or pneumonia due to an impairment of the safety of their swallowing. Undiagnosed swallowing problems put this group of people at risk, leading to complications and high health system costs. In a recent publication by Clave *et al*[3], it was demonstrated that an in-patient with undetected dysphagia before hospitalization, has a cost increase of 40.36% and an 8.42-day hospital stay. Therefore, it is time to take action!

In frail, institutionalized and hospitalized older adult, or when an acute condition develops, possibly impairing patient's swallowing function, or in adults when risk factors are present, dysphagia should be systematically screened.

Dysphagia should be systematically screened in frail, institutionalized, and hospitalized older adults, when an acute condition develops (possibly impairing the patient's swallowing function), or in adults, when risk factors are present.

There are multiple screening tools available to detect the risk of OD in adults. Bernardes *et al.* performed a review to map screening tools and found that the Eating Assessment Tool (EAT-10) was the most commonly used tool for dysphagia screening[4]. The "European Guidelines for the Assessment of Voice Quality in Clinical Practice" recently developed by the European Laryngological Society and The Union of the European Phoniatricians, recommended the use of the EAT-10 as one of the valid screening tools for the assessment of dysphagia, Grade of Recommendation B[5].

The Eating Assessment Tool (EAT-10) is a symptom-specific outcome tool for dysphagia designed for rating the degree of self-perceived swallowing impairment. It is a 10-item questionnaire with a Likert scale response option (0 no problem to 4 severe problems) with a direct scoring analogue instrument for swallowing disorders (0-2 normal range and 3-40 indicative of swallowing problems) that has demonstrated excellent internal consistency and reproducibility[1].

The EAT-10 has been used in multiple studies evaluating the elderly population neurological disorders, neuromuscular disorders, head and neck cancer, multiple sclerosis, chronic obstructive pulmonary disease, apnea, and high-risk hospitalization patients[2].

Transcultural adaptation and translation studies have shown the validity and reliability of EAT-10 in relation to the gold standard and other validated instruments[7] The internal consistency (Cronbach's α) between different versions ranged from 0.84 to 0.96 and intraclass correlation coefficients (ICCs) ranged from 0.70 to 1.00[3] .The psychometric properties of the EAT-10 have been tested also in some studies and produced good overall results, thus encouraging its use in real clinical practice[7]. Over 15 translations, cultural adaptations, and validations have been developed for the EAT-10: Spanish (Spain, Chile, and Colombia), French, Italian, Portuguese (European and Brazilian), German, Chinese, Japanese, Arabic, Dutch, Greek, Hebrew, Swedish, and Turkish[7].

In a systematic review and meta-analysis published in 2023, Zhang *et al.* evaluated the diagnostic accuracy of EAT-10 cutoff value to better guide clinical use. A flexible endoscopic evaluation or a video fluoroscopic swallowing study was used as the gold standard. The cutoff of 3 was recommended, as previously demonstrated by Belafsky *et al.*[8] in 2008). Different cutoff points can predict the aspiration risk in patients with OD[7,8] in specific populations (neurological disorders, head and neck cancer, COPD, and obstructive sleep apnea).

Although the EAT-10 is a self-administered screening tool, it cannot be used by some people who have certain diseases that affect handwriting (Parkinson's disease, etc.) or who are unable to read (age-related macular degeneration, glaucoma, etc.). In these cases, when the individuals maintain their cognitive function, the EAT-10 requires the participation of a third-party as demonstrated in some publication's healthcare professionals, clinical staff, researchers, family members or caregivers could help the patient to complete the EAT-10[9-15].

In conclusion,

The EAT-10 is a quick, easy to understand, valid and reliable test applicable in patients with dysphagia of several etiologies in different settings. The EAT-10 stands as an important tool for early detection of dysphagia, contributing to improve public health care and quality of life of those affected by OD.

References

1. Dziewas R., *et al.* Recognizing the Importance of Dysphagia: Stumbling Blocks and Stepping Stones in the Twenty-First Century. Dysphagia2017; 32(1): 78–82
2. Fedecostante, M., Dell'Aquila, G. & Cherubini, A. Screening for Dysphagia: Time Is Now!. J Nutr Health Aging 2023; 27, 593–594.
3. Martin-Martinez A., *et al.* A Systematic and Universal Artificial Intelligence Screening Method for Oropharyngeal Dysphagia: Improving Diagnosis Through Risk Management. Dysphagia. 2023 Aug;38(4):1224-1237.
4. Bernardes R.A., *et al.* Screening Tools Designed to Assess and Evaluate Oropharyngeal Dysphagia in Adult Patients: A Scoping Review. Nurs. Rep. 2022, 12, 245-258.
5. Zabrodsky M., *et al.* Consensus for voice quality assessment in clinical practice: guidelines of the European Laryngological Society and Union of the European Phoniatricians. Eur Arch Otorhinolaryngol. 2023;280:5459-5473.
6. Belafsky PC., *et al.* Validity and reliability of the Eating Assessment Tool (EAT-10). Ann Otol Rhinol Laryngol. 2008;117:919-24.
7. Schindler, A.,. *et al.* History and Science behind the Eating Assessment Tool-10 (Eat-10): Lessons Learned. J Nutr Health Aging 2023; 27, 597–606.
8. Zhang P.P., *et al.* Diagnostic Accuracy of the Eating Assessment Tool-10 (EAT-10) in Screening Dysphagia: A Systematic Review and Meta-Analysis. Dysphagia. 2023;38(1):145-158.
9. Igarashi K., *et al.* Survey of suspected dysphagia prevalence in home-dwelling older people using the 10-Item Eating Assessment Tool (EAT-10) PLoS One 2019 Jan 23;14(1):e0211040.
10. Mandysová P., *et al.* Criterion validity of the self-report dysphagia assessment tool EAT-10 among neurological patients. Cent Eur J Nurs Midw 2014;5(4):137-44.
11. Regan J., *et al.* The Eating Assessment Tool-10 Predicts Aspiration in Adults with Stable Chronic Obstructive Pulmonary Disease. Dysphagia 2017;32(5):714-20.
12. Shapira-Galitz Y., *et al.* Does the Hebrew Eating Assessment Tool-10 Correlate with Pharyngeal Residue, Penetration and Aspiration on Fiberoptic Endoscopic Examination of Swallowing? Dysphagia 2019;34(3):372-81.
13. Tenekeci E.G., *et al.* Validity and Reliability of the Turkish Version of the Questionnaire for the Assessment of Dysphagia in Multiple Sclerosis. Noro Psikiyatr Ars 2016;20;55(3):243-247.
14. Tufan Aslı. Screening oropharyngeal dysphagia in hospitalized older adults: A prevalent problem associated with mortality. Marmara Medical Journal 2016; 29: 152-156.
15. Gonçalves R., *et al.* Cross-cultural adaptation of the Brazilian version of the Eating Assessment Tool - EAT-10. Codas 2013;25(6):601-604.

Nestlé HealthScience

Communication for Heatlhcare professionals only.

Watch the 18 minute conference talk with Dr. Ana Cantón Blanco, MD, PhD. and hear about DISCUSSING THE SCIENTIFIC EVIDENCE SUPPORTING THE EAT-10 VALIDITY AND ITS USE IN ROUTINE CLINICAL PRACTICE

https://www.youtube.com/watch?v=L3M2yevrpXY

A report from Nestlé Satellite Symposium at the 13th Annual Congress of the European Society for Swallowing Disorders (ESSD)
Communication for Heatlhcare professionals only.

Nestlé HealthScience