4 Question Test (4QT) to Predict Dysphagia in Frail Patients on Admission
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Introduction

Approximately 55% of frail patients have swallowing difficulties during hospital admissions with most going undetected.

The bedside water swallowing assessment and Eat Assessment Tool -10 (EAT-10) questionnaires are rarely used by clinical staff.

A literature review previously suggested 4 questions common to most bedside swallowing screens (BSS), so we devised a simple 4 question assessment (4QT) as a swallowing screen to identify dysphagia prior to formal swallowing assessment by Speech and Language Therapy (SLT).

Aims

This Quality Improvement Project aims to determine whether 4QT is a useful clinical tool.

Method

Patients ≥75 years admitted to the Acute Frailty Unit were asked questions from both the EAT-10 (table 1) and our 4QT questionnaire (table 2), and referred to the Speech and Language Team for formal swallowing assessment.

Results

48 patients (58% male) were recruited from the Acute Frailty Ward between 3rd May and 5th July 2018. The median age was 83 (range 75-102) with median Clinical Frailty Scale of 4 (range 1-7). 83% did not have a swallow assessment on admission.

92% of patients had no history of dysphagia prior to admission but 15% had unsafe swallowing on formal assessment.

There was significant agreement (86.6%) between EAT-10 and 4QT, K=0.703 and correlation was 0.673. 62% of patients scoring 1 or more on the 4QT were found to have safe swallowing on formal assessment.

Conclusion

Frail people are at higher risk of dysphagia but this frequently goes undetected on admission.

The EAT-10 and a SLT clinical assessments are the gold standards. The 4QT is a simpler tool and had a high degree of agreement with EAT-10, but also highlighted a number of false positives.

This discrepancy is likely from variations in SLT assessments and the small sample size.

The 4QT is a simple and potentially useful BSS tool but more assessment of its utility is required.

References
