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Malnutrition 'self-screening' with 'MUST' in hospital outpatients: concurrent validity and the ease of use

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Although nutritional screening with a validated tool, such as the 'Malnutrition Universal Screening Tool' ('MUST')[(1)] is recommended in hospital outpatient clinics[(2)], health-care workers are under pressure to undertake a variety of other tasks. Little attention has been paid to the possibility of patients screening themselves ('self-screening'). The aim of this study was to investigate both the practicalities of 'self-screening' and the extent to which the results agree with those undertaken on the same patients by a trained health-care professional (concurrent validity).

The study, undertaken between July 2008 and January 2009, involved 205 outpatients (mean age 55 (SD 17) years; 56% male, representative of 72% of those invited to take part) randomly selected from a range of clinics (including gastroenterology (40%), surgical (20%) and oncology (11%)). All participants gave informed consent to take part and were asked to screen themselves using a patient friendly version of 'MUST'. They were given a simple instruction sheet, BMI and weight loss tables, and made aware of the weighing scales and stadiometers in the waiting room. No other instructions were given. A trained health-care professional then screened the patient as per standard methodology[(1)]. Screening results were not disclosed between the patient and health-care professional. All patients completed an ease of use questionnaire (very easy, easy, difficult and very difficult) and the time taken to screen themselves was measured by a stopwatch. Agreement and chance-corrected agreement (κ) were assessed[(3)].

A 19.6% of patients categorised themselves into medium (9.8%) and high risk (9.8%) of malnutrition. For the three-category classification of 'MUST' (low, medium and high risk) agreement between patient 'self-screening' and health-care professional screening was 90% ($\kappa = 0.70$ (within the range of 0.45–0.75 indicative of 'fair-good' agreement); SE 0.058; $P<0.001$). For two categories (low risk and medium + high risk) agreement was 93% ($\kappa = 0.78$ (within the range of 0.75–1.0, indicative of 'excellent' agreement); SE 0.058; $P<0.001$). Disagreements between the two methods were not systematically under or over categorised. Of the 14 (7%) discrepancies associated with the two category classification, five were associated with BMI score, seven with weight loss score and one with acute disease score (one was associated with both weight loss and acute disease effect score). Most patients reported that they were able to complete 'self-screening' in less than 5 min (71%), overall 98% were able to complete in less than 10 min. Patients found the tool easy or very easy to understand (96%) and complete (98%), with 94% reporting that they were happy to screen themselves. The mean recorded time for patients to complete screening was 5 min (SD 1 min 54 s).

This study of patients attending hospital outpatient clinics shows that 'self-screening' involving 'MUST' is acceptable to patients, user friendly and with good concurrent validity to health-care professional screening. Further work is required to understand how 'self-screening' and subsequent management can be effectively implemented into routine outpatients, and the wider community.

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