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Evaluation of an alternative set of supporting materials for ‘MUST’ across the hospital and community setting

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The ‘Malnutrition Universal Screening Tool’ (‘MUST’) launched by BAPEN in 2003, is validated for use across health-care settings⁽¹⁾ and is the most commonly used nutrition screening tool in the UK⁽²⁾. However, practical implementation of screening in settings where there is little nutrition expertise can be challenging for a number of reasons. These include the difficulties some health-care professionals have using the supporting materials (e.g. BMI figure, weight loss and ulna table) and the lack of a template to record the results of screening over time in a patient’s notes. In order to help overcome some of these difficulties and facilitate screening with ‘MUST’ an alternative set of supporting materials for ‘MUST’ were developed. This study aimed to investigate whether these alternative materials could help improve the ease of using ‘MUST’ without compromising the accuracy of results.

Between October 2009 and June 2010, 111 health care workers (53% nurses, 27% dietitians and 21% HCA/carers/other) across hospital (39%) and community settings (54%) (6% non-practicing/other) who use ‘MUST’ in clinical practice were asked to complete case studies using the current ‘MUST’ package (<http://www.bapen.org.uk>) and the alternative materials (randomly assigned), before completing an evaluation form. The alternative materials included; 1-changing the BMI chart to a table with extended ranges and all increments, 2-one weight loss table (metric and imperial) with extended ranges and all increments that does not require calculation of weight loss, 3-replacement of all < and > signs with ‘less than’ and ‘more than’, 4-a colour-coded vertical ulna length table and 5-a simple record form.

The majority found ‘MUST’ screening ‘very easy’ or ‘easy’ with both current ‘MUST’ materials (79%) and the alternative ‘MUST’ materials (97%). A significantly greater proportion completed ‘MUST’ using the alternative materials in less than 2 min (76% v. 46%) ($P = 0.000$ Chi²). The alternative charts for BMI, weight loss and ulna length were preferred to the current ‘MUST’ charts by most subjects (76, 90 and 95%, respectively). Ninety-eight percent reported the record chart would be practical to use. Use of both the current and alternative ‘MUST’ materials resulted in correct BMI scores (95 and 97%, respectively) and acute disease effect scores (83 and 87%, respectively) in most cases. However, the alternative materials significantly improved the percentage of accurate weight loss scores in both hospital and community cases (94% correct with alternative materials, 90% with ‘MUST’) ($P = 0.000$ Chi²). Overall, there were 50% fewer total chart errors across all case studies using the alternative materials ($P = 0.000$ Chi²). Similar results were obtained across different types of health-care worker and overall most subjects (73%) preferred the alternative materials.

This study suggests that screening with ‘MUST’ is easy but that the speed and accuracy of completion and recording of screening results could be improved with the use of newly developed alternative materials. Practical implementation of such materials in different health-care settings should be evaluated.

1. Elia M (2003) The “MUST” report. Nutritional screening of adults: a multidisciplinary responsibility. A Report by BAPEN.
2. Elia M & Russell CA (2009) Screening for malnutrition in sheltered housing 2009. A Report by BAPEN on behalf of The Group on Nutrition and Sheltered Housing (GNASH).